



CASE STUDY

# Hungary/Romania: Transboundary River Basin Management of the Körös/Crisuri River Project



## Summary

Körös/Crisuri transboundary River Basin is in need of more transboundary cooperation and coordination to ensure sustainable management of the resource. To address this, Romania and Hungary jointly developed a strategy for integrated water resources management, aiming to strengthen cooperation. The key lesson is that access to, and management of data is at the core of decision-making in the case of transboundary water management.

## Background

The Körös/Crisuri sub-basin is shared between Hungary and Romania. It is one of the main sub-basins of the Tisza/Tisa. The springs that feed the Körös/Crisuri are located in the Carpathian mountains in the Northwest of Romania. Its waters cross the Hungarian border when entering the plain. The catchment area covers approximately 30,000 km<sup>2</sup>. The yearly volume of water resources is estimated at 3,437 million m<sup>3</sup> for the whole basin. Such sub-basin scales appear to be perfectly adapted to tackle in depth transboundary issues between the two countries. With the river Samos/Somes north and Maros/Mures south, it is three sub-basins of comparable size to the Körös/Crisuri rivers that are shared in total between the two countries. The five countries bordering the Tisza/Tisa river basin are Romania, Hungary, Slovakia, Ukraine, and Republic of Serbia. The pollution accidents that affected the Tisza/Tisa in early 2000 underlined the need for further strengthening of international cooperation between Romania and Hungary regarding all aspects related to integrated water resource management at river basin level. Occurrence of frequent floods also means that flood management is a major issue for the basin. Adopted in 2000, the Water Framework Directive (WFD) requires a number of obligations to be fulfilled with the

aim of reaching “good status” for European water resources within fixed deadlines. The International Commission for the Protection of the Danube River (ICPDR) set up a cooperative strategy fully in line with the WFD requirements. In a project to manage the tributaries of the Danube basin, Tisza sub-basin (Körös/Crisuri Basin) Romania and Hungary applying the requirements of WFD implemented a project in the Körös/Crisuri sub-basin shared between the two countries.

## **Actions taken**

Romania and Hungary with the support of French ministry of Ecology and Sustainable Development, FFEM and IOWater developed a pilot integrated water management tool for the Körös/Crisuri transboundary River Basin within the Tisza/Tisa sub-basin. The project, which started in 2005, brought together Hungarian, Romanian and French experts to coordinate and provide technical assistance in the implementation of the WFD. The project was designed to strengthen cooperation between Hungarian and Romanian organizations responsible for environment and water management. It also aimed at encouraging public participation in the process of developing River Basin Management Plans (RBMPs) in line with WFD requirements and a Watershed Contingency Plan (WCP) to prepare a response to future accidental water pollution. The main purpose of the project activities was to bring support to structure stakeholder involvement in the river management planning process. In addition, training on public debate techniques was provided to prepare a public consultation pilot test on the main water issues in several municipalities in both national sectors of the basin. For the public consultation pilot test, a common questionnaire has been drafted in English and adapted to each country. The main objective of the questionnaire was to ascertain:

- The public’s level of knowledge on water issues
- The public’s expectations regarding the main water problems to be solved
- The local water issues identified by inhabitants
- The actions that they consider as essential to protect or restore the aquatic environment.

As well as initiating an assessment of the monitoring system used by the two countries in line with Water Framework Directive requirements, a particular effort was made to organise seminars and training sessions for harmonising practices. A common technical platform to facilitate the production and the dissemination of harmonised information was swiftly set up. Thanks to the cooperation between Hungarian and Romanian groundwater experts, the common characterisation of the aquifers within the study area was initiated. This characterisation process led to several products:

- 6 geological cross-sections
- A piezometric map for the Holocene aquifer
- Common guidelines for the implementation of WFD monitoring networks (quantitative and qualitative aspects)
- A preliminary assessment of groundwater bodies’ chemical and quantitative status.

## **Outcomes**

The project provided support to structure stakeholder involvement in the river management planning process which is expected to enhance active public participation in the Körös

/Crisuri basin. In particular the project laid a firm foundation for local and national data base and information management procedures in addition to those promoted by the ICPDR portal and through the Danube River Basin GIS project.

A key tool in the form of a catalogue of metadata and data sources available on internet was set up to enable easy sharing of metadata between international partners involved in the basin management. This has acted as a powerful incitement for data structure harmonization between different administrative bodies in both countries.

The project greatly contributed to the development of a harmonized River Basin Management Plan and Watershed Contingency Plan. The project activities were designed according to the steps necessary for preparing an RBMP which led to the elaboration of one of the very first RBMPs of the Danube basin.

In addition, training on public debate techniques was provided to prepare a public consultation pilot test on the main water issues in several municipalities in both countries water sectors.

### **Lessons Learned**

Access to and management of data is at the core of decision making in the case of transboundary water management which is necessary for planning, modeling, map production and public information.

Such information is needed for the development of baseline scenario relating to the evolution of the impact of diffuse pollution from agriculture, to drinking water and wastewater treatment needs, to mining industry discharge, and to anticipating changes in the basin.

Such projects facilitate team work between the practitioners working on water issues in transboundary river basins. It also enhances easy transfer of new methodologies and practices to the regional and national teams in their respective countries.

The dissemination of the project results from Tisza/Tisa has acted as an example in the whole of Danube basin not only in Hungary and Romania but other countries.

The integration of economical factors is also realized to be key for sound and efficient progress decision making in water management.

### **Organisation**

Global Water Partnership Central and Eastern Europe - GWP CEE, The French Facility for Global Environment - FFEM

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**Supporting Materials**

GWP Central and Eastern Europe

International Network of Basin Organisations

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**Related IWRM Tools**

Transboundary Organisations

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