Geophysical Research Abstracts, Vol. 7, 08697, 2005

SRef-ID: 1607-7962/gra/EGU05-A-08697 © European Geosciences Union 2005



EU – LIFE Environment Project, assisting in RBMP for Timis

Mary-Jeanne Adler

National Institute of Hydrology and Water Management, 97 Sos. Bucuresti-Ploiesti, 71552 Bucharest, Romania, Tel: +40-21-2333573, Fax: +40-21-2333596

The long-term development objective of the EC LIFE-Riverlife Project is to contribute to sustainable human end economic development in the Timis-Bega river basin area as part of the Danube River Basin (DRB), through reinforcing the capacities of central and local authorities to develop effective mechanisms and tools for integrated river basin management.

The overall objective of the project is to assist the country in the EU enlargement and accession process to meet the EU requirements of water related Directives with emphasis on the EU Water Framework Directive (WFD). As a candidate country, Romania is actively participating in the common strategic implementation process. The WFD overall environmental objective is the achievement of "good status" for all of Europe's surface and ground waters within a 15-year period mainly through the development and implementation of River Basin Management Plans.

The specific objective of the project is to support the WFD implementation process at the level of a sub-unit within the limits of the DRB, through the development of a RBMP. The project will also facilitate the implementation of the Danube River Protection Convention (DRPC) as an essential element in the implementation of the Directive in the transboundary river basins. Supplementary, as between Romania and Yugoslavia, several bilateral treaties were signed as neighboring states concerning shared water resources: 1955, 1964, 1967, 1976,1987, the solution will also try to respond to these requirements.

Expected outcomes in the recipient country consist of (i) responding to a real hazard problem, which affects the quality of life of many citizens, and (ii) improvement in the environmental conditions in the targeted areas.

Flooding is one of the major natural hazards to human society and an important influence on social and economic development for Romania causing financially greater losses per annum on average than any other natural hazard.

One key concept of the WFD is the coordination, organization and regulation of water management at the level of river basins. Therefore, river basin districts are shaped in such a way as to include not only the surface run-off through streams and rivers to the sea, but the total area of land and sea together with the associated groundwater and coastal waters. The concept allows even for the small river basins directly discharging into the sea to be combined into one river basin district.

As a principle, the complex decisions on the use or interventions in the aquatic systems within the river basin district limits should take place in an integrated and co-coordinated approach as part of the RBMP. The process includes all RBMP plan development phases from planning and analysis phases to the assessment and the identification of respective programs of measures intended to achieve the defined environmental objectives for the Timis-Bega integrated basin.

Different proposal and variants were provided for water management plan for Timis-Bega Basin. Generating these scenarios, first were taking into account the water balance indicators for long term planning and second, the recommendations referred to risk areas. For flood management the dams brake simulation was provided for the old infrastructure, dangerous for the downstream localities. These scenarios help in up-grating the exploitation rules during floods.

The elaborated scenarios for water management plan were analyzed for determining the optimum from economical point of view.

Estimating the economical aspects, calculus of the cost-benefits was elaborated for the non-structural measures we proposed and (the hydrological informational system and the forecasting procedures). Taking into account the implementation of the structural measures some variants were modeled, to take into account different polders, flooded area, reservoirs and dams behavior. Special brochures presenting different measures regarding the hot spots identified in the basin were elaborated for data dissemination, to get reaction of the local administration and the specialist of the local water authority.