The Sava river water resources model

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To follow holistic doctrine for a protection of water environment and human health we need to develop river basin management plans. To support their development, harmonized data on catchments characteristics and integrative information of today's management of water environment are needed. Therefore, we are developing an information system, in which data and information from different sources are collected, harmonized and evaluated. The system will also support water quality and water flow model.

The system consists of thematically independent data bases or thematic maps; each data base consists of GIS thematic map and corresponding relational data base or descriptive information (documents, tables, pictures, moving slides.). It is also harmonized with the others and integrated into one, consolidated system. Objects in each database are spatially represented and geo oriented in 2D surface. The basic geographical database is hydro-geographical surface delineation. The system is based on PC platforms, prepared for web communication and user control system. Databases are prepared in PC commercial software forms with html protocols and xml data descriptions.

In the first step, information on the existing national data fond is aggregated. In the module 'driving forces and pressures' data on settlements with population, land use, captured springs, areas of water supply and sewerage systems is collected and analyzed. In the module 'state and impact' data on water quantity, water chemical quality on selected surface water stations and groundwater bodies, vulnerable areas to nutrients and organic emissions is collected and harmonized. In the 'response module' data on nature-protected areas, drinking water protection regimes, waste water treatment plants and solid waste dumping sites is prepared and analyzed.