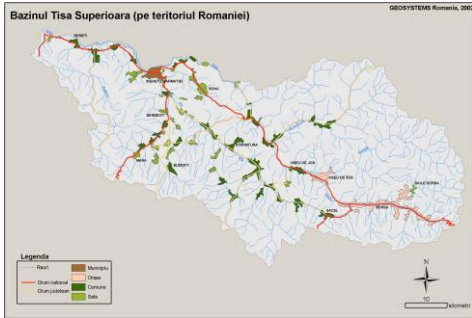
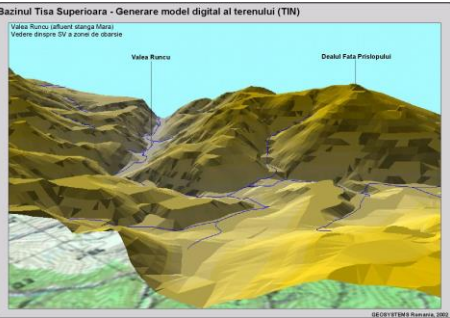


Ref no:	Project title		Integrated TISA River Basin Management, Romania					
	Country	Overall project value (EUR)	Proportion carried out by candidate (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of partner(s) [if any]
	Romania	800,000	80%	12	Ministry of Finance Romania	PHARE	Sep 2001 – Aug 2004	Danish Hydraulics Institute (DK) GeoSystems (RO)
Detailed description of project						Type of services provided		
The TISA project improves the existing flood forecasting using meteorological, hydrological and water quality data as well as broadcast of warnings. End-user of this information system is the “Romanian Waters” National Company (RWNC). The system is installed at the Somes-Tisa Water Division (STWD), which is one of the branches of the RWNC that covers Somes-Tisa basin including the Tisa, Tur and Crasna hydrographic sub-basins.  Bazinul Tisa Superioara (pe teritoriul Romaniei)  Bazinul Tisa Superioara - Generare model digital al terenului (DTM) The project consists of three major components: (a) The GIS-based mathematical models, (b) Monitoring and modeling system, and (c) Automatic monitoring and warning stations. More specifically, the study includes: 1. studies of hydrology and river hydraulics 2. flood control analysis for streams and rivers 3. Simulation of the water balance on a river basin scale; 4. MIKE11 pilot study for the simulation of hydrology, hydraulics, water quality and sediment transport in rivers and other inland waters. To-date the existing systems include a Hydro-meteorological network, a network of cross-sections for control of the water quality, and a system of rapid and slow flow transmissions. The main objective of the STWD activity in Somes - Tisa basin is to provide extensive knowledge, overall administration, and improve control over quantity and quality. This effort will lead to: an economic re-evaluation of the surface and ground water resources; the protection against exhaustion and degradation of the surface and ground waters; the prevention and flood control measures against water destructive actions; and the prevention of accidental pollution in order to meet its individual, social, public and different nature requirements. It is estimated that the improved flood control carried out through the integrated system proposed by this project will reduce experienced damages by 10-15%.						<u>Services-Deliverables</u> ▪ GIS based information System of the upstream Tisa river basin – formulation of a simulation model for the river basin system ▪ GIS based information System of the upstream Tisa river basin – Monitoring and Modeling System ▪ Integrated package of hydraulic models, set-up on PC, for predicting flood propagation, flood impacts and preparing rescue actions in the RRD ▪ Automatic monitoring and warning stations ▪ Developing a logical basis for water resource management ▪ Assessing and implementing proposals for the planning, design and implementation of modern water resources management with the implementation of MIKE11 hydrology module <u>Key Words</u> River basin, Tisa, Somes, scenarios, flood routing, modelling, MIKE 11, environment, integrated management, mapping, hydrological data, hydraulic simulation, meteorological data, GIS, automatic monitoring and warning stations <u>Reference</u> D. Kallidromitou & M. Bonazountas		