



### **3 PROJECT MANAGEMENT ISSUES**

#### **3.1 Project Organizational Framework**

The PHARE project was during the first project year, 1992, executed by the Federal Committee for Environment, Government of the Czech and Slovak Federal Republic. From the beginning of 1993 the project was transferred to the Programme Implementation Unit (PIU) at the Ministry of the Environment, Slovak Republic.

The Project Manager is appointed by the Faculty of Natural Science, Comenius University (PRIF UK). From the beginning of the project until the end of 1994 Professor Igor Mucha was the Project Manager. Originally, Professor Igor Mucha and his team of ground water specialists belonged to PRIF UK, but in 1994 they established a private company, Ground Water Consultants Ltd (GWC). Hence, in the beginning of 1995 PRIF UK nominated Mr. Andrej Cibulka in Project Manager.

Important Slovakian contributions to the project are provided by specialist staff from GWC, Water Research Institute (VUVH) and Irrigation Research Institute (VUZH).

A Danish-Dutch consortium of six organizations was selected as Consultant for the project. The Consultant is headed by Danish Hydraulic Institute (DHI) and comprises the following associated partners: DHV Consultants BV, The Netherlands; TNO-Applied Institute of Geoscience, The Netherlands; Water Quality Institute (VKI), Denmark; I Krüger Consult AS, Denmark; and the Royal Veterinary and Agricultural University, Denmark.

#### **3.2 Steering Committee**

In order to facilitate coordination between the project and important cooperation partners as well as key end users of project results a Steering Committee has been established. The committee comprises representatives of the following organizations:

- Programme Implementation Unit (PIU), Slovak Ministry of the Environment
- Slovak Ministry of the Environment
- The Project Manager
- Water Research Institute (VUVH)

- Research Institute of Irrigation (VUZH)
- Centre of Monitoring, Slovak Hydrometeorological Institute (SHMU)
- Faculty of Natural Sciences, Comenius University (PRIF UK)
- Ministry of Soil Management
- Water Economy Construction (Vodohospodarska Vystavba)
- The Danube Catchment Authority (Povodie Dunaja)
- Danish Hydraulic Institute on behalf of the Consultant group.

The Steering Committee has held seven meetings during the course of the project, namely on

- 9 April 1992
- 27 May 1992
- 10 March 1993
- 7 September 1993
- 26 January 1994
- 29 November 1994
- 29 June 1995

The Progress Reports prepared by the Consultant in January 1993, July 1993, January 1994, July 1994 and July 1995 were submitted to the Steering Committee and formed the basis for information and discussions of general project status and work plans. Furthermore, the technical progress and preliminary results were presented and discussed at several of the meetings. The last two meetings were mainly dedicated to discussions regarding the application scenarios presented in Volume 3 of the Final Report.

### **3.3 Project Manager and End User Organisation**

According to the Terms of References the core Slovakian group in the project is the Ground Water Division of the Faculty of Natural Sciences (PRIF UK). This group should provide 6 persons full-time for the project and the group had 3 key functions, namely providing the Project Manager, providing technical input for the project and becoming the future user of the established model, hardware and software. As Project Manager was appointed Professor Igor Mucha. During 1992 and 1993 Professor Mucha and his group received funding for their project activities from the Slovak government. However, from the beginning of 1994 no salaries were paid to the group and the group established a private firm, Ground Water Consulting, Ltd. (GWC) in April, 1994. Throughout 1994 no salaries were made available to GWC

for providing the project work specified in the Terms of References. During this period GWC provided some work for the project to ensure that the computer system was maintained and running, enabling the project activities to continue. Thus, during 1994 GWC has provided staff input to the project corresponding to on average about 3 persons full-time. This situation with too little input from the core Slovakian group during 1994 has been a major concern and has therefore been subject to many discussions involving the Consultant as well. In November 1994 the following decisions were made in agreement between the involved parties:

- PRIF UK nominates a new Project Manager.
- GWC continue to provide technical input for the project under direct subcontract with DHI.
- Formally, all equipment continues to be the property of the Ministry of Environment but in practice PRIF UK becomes the future users.
- A new group of Slovak specialists will be established at PRIF UK which after proper training must be able to utilize and further develop the established integrated modelling system.

These conclusions were executed in the beginning of 1995. As new Project Manager PRIF UK appointed Mr. Andrej Cibulka. Training of a new Slovak group is expected to start in January 1996.

### 3.4 Project Extension by Six Months

The tendering process and delivery of the major computer equipment was after consultation with PIU (Prague) during the Inception Phase estimated to take about seven months. Instead, it turned out to take 15 - 20 months for the two major computer workstations including the ARC/INFO and INFORMIX data base software systems. This delay has created subsequent delays in many project activities, which were dependent on this equipment.

On this basis the Project Manager and the Consultant had requested that the project period was extended by six months. PIU has approved this request, so that the key timings have been modified as follows:

- *Phase I:* 16 July 1992 - 15 January 1995
- *Phase II:* 16 January 1995 - 15 September 1995
- *Final Report:* 1 December 1995
- *Project Termination:* 31 December 1995.

### 3.5 Access to Existing Data

A very large amount of relevant data from the project area exist. The major part of this data is collected by and available through the Centre of Monitoring, which is a separate organization under SHMU specifically responsible for the collection of data for the Danubian Lowland area.

The question of the availability of this data for the project and the associated conditions has been subject to comprehensive discussions at several separate meetings as well as at Steering Committee meetings. Due to considerable efforts by the Project Manager and the Ministry of Environment the project got access to all relevant existing data without costs charged to the project in this regard.

### 3.6 Support Projects Financed by Slovakian Funds

The PHARE project has been supported in kind by Slovakian financing of associated projects. The key elements in this regard are:

- Project input from GWC:
  - staff input for data collection, data processing, field work, modelling and management, 1992 - 1995; and
  - field work and laboratory analyses for the Kalinkovo geochemical field site, 1994.

The activities in 1992 and 1993 were provided in accordance with the Terms of Reference and funded by the Slovak government. The 1994 staff input amounted to about half the input specified in the Terms of Reference. Since the beginning of 1995 GWC's input for the project has been financed under DHI's PHARE budget. GWC input in 1995 has been about four persons employed full-time.

- Project input from VUVH
  - staff input for modelling work, 1992 - 1994;
  - a sediment transport field programme, 1992 - 1993; and
  - a water quality field programme, 1992 - 1993.

The activities in 1992 were funded by Water Economy Construction, while the 1993 and 1994 activities were funded by the Ministry of the Environment.

- Project input from VUZH
  - staff input for data collection, processing and modelling work, 1992 - 1995.

The 1992 activities were funded by VUZH, while the activities in 1993, 1994 and 1995 were funded by the Ministry of the Environment.

In addition, the PHARE project has through cooperation with other projects obtained access to field data obtained under other projects. An example in this regard is a major project on reservoir eutrophication conducted by VUVH and financed by the Ministry of the Environment during the second half of 1994. The PHARE project has given recommendations for the field programme, and the measurements have been used in connection with calibration of the reservoir eutrophication model.

These support projects and cooperation with other projects have been very valuable for the PHARE project. Without this support and cooperation it would still have been possible to develop and apply the integrated modelling system as described in the Terms of References. However, with this support it has been possible to establish, calibrate and validate the models to a much higher level of refinement and accuracy than it would otherwise have been possible. Consequently, the direct practical applicability of the project outputs by the end of the project period have improved significantly.