# **PREFACE**



#### Antecedents

On April 19, 1995 the Government of the Republic of Hungary and the Government of the Slovak Republic signed the Agreement on certain temporary measures and discharges into the Danube and Mosoni Branch of the Danube<sup>1</sup> (Appendix 1). The activity of the Nominated Monitoring Agents connected with the realisation of the environmental monitoring in the influenced area is described in the Statute<sup>2</sup>, signed on May 29, 1995 in Gabčíkovo.

According to the Agreement the Slovak Party has undertaken to discharge a yearly average of 400 m³/s of water to the Danube downstream the Čunovo weir, depending on hydrological and technical conditions described in the Appendices No 1 and 2 of the Agreement. In June 1995 the Hungarian Party constructed an underwater weir in the common section of the Danube at rkm 1843, by which it is possible to ensure the water supply of 150 m³/s to the river branch system in the Hungarian inundation årea.

According to the Article 4 of the Agreement the Parties are obliged to mutually exchange data obtained from the environmental monitoring systems operating on both sides, which are necessary to assess the impacts of the water supply. The technical details of the environmental monitoring systems on both sides - the determination of impact area, the sampling and measuring points, the frequency of measurements, the list of exchanged parameters and the frequency of data exchange - are described in the Statute (Appendix 2) and relevant documents.

The results of measurements in tabular and graphical forms with short descriptions create the National Annual Reports prepared by the Parties according to the Article 3 of the Agreement. This Joint Annual Report was jointly elaborated, based on the approved and mutually exchanged national reports.

The monitoring on the Slovak side is organised by the Water Construction Enterprise Bratislava and the Slovak Hydrometeorological Institute. The evaluation of the national monitoring is done by the Faculty of Natural Sciences of the Comenius University, Slovak Academy of Sciences, Slovak Hydrometeorological Institute, Forest Research Institute, Soil Fertility Research Institute, Danube Catchment Enterprise and GROUND WATER Consulting Ltd. The data exchange and the evaluation of the monitoring under the frame of the joint monitoring are co-ordinated by the Plenipotentiary of the Slovak Government for the construction and operation of the Gabčíkovo-Nagymaros Project.

Ministry for Environment and Regional Policy heads the monitoring on the Hungarian side. The national monitoring is carried out and the evaluation is done by

<sup>&</sup>lt;sup>1</sup> Agreement between the Government of the Slovak Republic and Government of the Republic of Hungary concerning Certain Temporary Technical Measures and Discharges in the Danube and Mosoni Branch of the Danube, signed on April 19, 1995.

<sup>&</sup>lt;sup>2</sup> Statute on the Activities of the Nominated Monitoring Agents envisaged in the "Agreement between the Government of the Slovak Republic and Government of the Republic of Hungary concerning Certain Temporary Technical Measures and Discharges in the Danube and Mosoni Branch of the Danube", signed on May 29, 1995.

the North-Trans-Danubian Water Authority, North-Trans-Danubian Inspectorate for Environment Protection, The Forest Research Institute, the Pannon Agricultural University, Museum of Natural Sciences, Hungarian Academy of Sciences and Eötvös Lóránd Science University.

## The goals of the joint monitoring

The main goal of the joint Slovak-Hungarian monitoring is to mutually record and evaluate the impacts of the water supply assured by the underwater weir. The evaluation includes the changes in the hydrological regimes of the surface and ground water, the changes in the surface and ground water quality, the changes in soil moisture and changes in forestry and biota.

The goal of the mutual data exchange is to provide information on monitoring results characterising the environmental changes on the influenced area of the respective Parties. The basic condition of data exchange is use of equal or compatible methods of measurements and analysis and the application of agreed interpretation methods.

The final goal of the Joint Annual Report is to submit the joint evaluation of the monitoring results and the joint recommendations for monitoring improvement and environment protection activities to the respective governments.

# Joint monitoring activities in 1996

In the hydrological year 1996 the joint monitoring activities carried out in 1995 continued without changes. The surface and ground water regime, the surface and ground water quality monitoring, as well as the monitoring of soil moisture, forestry and biota were carried out according to the Agreement and according to the Statute, incorporating the recommendations mutually agreed in the 1995's Joint Annual Report.

The monitoring network, the data exchange time interval and the number of mutually exchanged parameters have been extended according to the recommendations, agreed on meetings on October 10, 1996 (Appendix 3) and January 16, 1997.

During the year 1996 field visits in the influenced area, on both Hungarian and Slovak sides, were organised on several occasions.

On July 10, 1996 the delegates of the Slovak Party visited the ground water level and ground water quality observation wells on the Hungarian territory. Subsequently, delegates of the Hungarian Party visited the ground water level observation wells in the inundation area on the Slovak side. On September 12, 1996 the Hungarian delegates visited some of the drinking water supply wells and surface water quality monitoring sites in the reservoir and along the Power and Tailrace canals.

The forest monitoring site visit was carried out on August 13, 1996 in the Hungarian floodplain and on August 14, 1996 in the Slovak inundation area.

## Fulfilment of the 1995's Joint Annual Report recommendations

### General recommendations

The impact area of the temporary measures according to the Agreement was jointly determined and agreed on October 10, 1996. The data exchange time period was extended backwards to October 1, 1992 in hydrological and water quality monitoring and to January 1, 1992 in soil moisture, forest and biological monitoring.

#### Other recommendations

The recommendations concerning the respective parts of the joint monitoring have been fully realised. The most important ones among them, besides the long term data exchange, are the mutually exchanged information on sampling frequency, date of sampling and list of analysed parameters in surface and ground water quality. Very important was the substantial extension of the ground water level observation well network included in the mutual data exchange on both sides. The most important recommendations in the biota related fields are the exchange of meteorological data, extension of the soil moisture monitoring network on both sides, and extension of exchanged biological parameters by some of the terrestrial observation.