

Monitoring water to control pollution

The former Yugoslav Republic of Macedonia

PHARE-CBC

Country

The former Yugoslav Republic of Macedonia

Implementation period

1998-ongoing

Funding

EU €1.6 million

The former Yugoslav Republic of Macedonia €100,000

Results

Installation and servicing of automatic water monitoring devices. Regular monitoring of water quality. Training of experts on emergency alert systems.

Coordinators

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Partners

European Agency for Reconstruction

Pollution in rivers is too high

Supplying around 75% of the country's total water resources, Vardar River bisects the country from north to south, before flowing into Greece and entering the Aegean Sea near Thessaloniki. After several years of urbanisation and unregulated industrial processes in the River's surrounding areas, it has become heavily contaminated by untreated urban and industrial pollution, including heavy metals and chemicals. Similar environmental pollution has been identified in many of the country's other rivers.

In recent years several activities have been launched in the country to improve water quality, including an EU project to assist the Office for Hydro-Meteorological Affairs in setting up an efficient water monitoring system on the Vardar River. Launched in 1998, it is helping experts of the country to gain a better understanding of the nature and extent of the River's water pollution, so that its quality can be improved and alert systems to notify authorities on pollution problems devised.

Equipping automatic stations with monitoring devices

Specifically, the project has contributed to the equipping of two automatic water monitoring points: the first lies next to an existing hydrological station at Taor bridge near the capital Skopje, and the second is at Demir-Kapija, 55 km from the border with Greece. Owing to problems encountered in connecting the latter site to the electricity network – for the operation of a water pump – and in installing a fixed phone line in the station, the Demir-Kapija site still needs further development.

Nonetheless, the Office is checking the equipment and systems installed at the points twice a week. Based on research already made, the installed monitoring devices check daily for certain pre-defined criteria, including the water's PH value, and heavy metals and nitrate levels. These results are fed into monthly monitoring reports for the Ministry for Environment and Physical Planning to help them establish an accurate picture of the qualitative and quantitative characteristics of the water flowing down the Vardar river bed.

Training in emergency alert system development

Besides providing technical and financial assistance to the monitoring points, the European Agency for Reconstruction has also arranged for further training of hydrological experts in Greece and Slovakia. In particular, these study visits have raised

experts' awareness of how they should carry out quick and efficient action in case of heavy concentration of contaminated materials, and how to develop an alert system to warn relevant bodies of a potential risk or emergency concerning water quality.

Support from international partners

The EU Vardar River project is not operating in isolation; a similar monitoring exercise is also being carried out across the border on the Greek side of the River. The project's implementation is helping to ensure that the former Yugoslav Republic of Macedonia meets its international obligations related to the effective maintenance of water systems. In the long term, the results will also provide a baseline for the country in making future improvements to the quality of the nation's water. As yet, no deadline for the project's end has been determined.