



UNITED NATIONS

ECONOMIC COMMISSION FOR EUROPE

CONVENTION ON THE PROTECTION AND USE OF TRANSBOUNDARY WATERCOURSES AND INTERNATIONAL LAKES

Assessment of transboundary waters in the UNECE region

Shining a light on WATER

Effective management of shared water resources depends on reliable information: For example, what is the real status of our aquatic resources? What problems do UNECE countries face with regard to transboundary waters and how are these likely to evolve? What actions should be taken under the Water Convention to improve the state of water for the benefit of the region's people and natural ecosystems?

At their third meeting in 2003, the Parties to the Water Convention assigned the task of answering these questions to its Working Group on Monitoring and Assessment. The result, four years later, was the publication of *Our waters: joining hands across borders* – a new assessment of transboundary rivers, lakes and groundwaters.

This was the first in-depth analysis of transboundary waters in the UNECE region. A joint undertaking of Governments and international and national organizations, it was carried out under the overall leadership of Finland and involved more than 150 water experts. The study covers 140 transboundary rivers and 30 transboundary lakes in the European and Asian parts of the region, as well as 70 transboundary aquifers located in Central Asia, the Caucasus and South-Eastern Europe..

This work fulfils an essential obligation under the Water Convention, which requires Parties to carry out joint or coordinated assessments of the state of transboundary waters, determine the effectiveness of measures taken to address transboundary impacts, and make the results public.

The assessment identifies the major sources of pressure on water quantity and quality in the UNECE region from human activities, including crop and animal production, mining and quarrying, manufacturing, hydropower generation, sewerage and waste management, transportation and storage, and tourism.

The assessment gives special attention to Central Asia, the Caucasus, Eastern Europe and South-Eastern Europe – where countries face the biggest challenges to reducing transboundary impact.



A complex picture

The report paints a complex picture: while transboundary waters are still healthy in many parts of the region, in others both the quantity and quality of water resources are threatened by over-use, increased urbanization and poor water management.

More than 80 per cent of the rivers and 75 per cent of the lakes assessed are polluted, some heavily, by organic chemicals and nutrients from sewage and agriculture as well as hazardous substances from mining and industry. Cadmium, lead, mercury, phenols and oil products, and pesticides are among the most dangerous chemicals found.

Most of the assessed lakes are affected by eutrophication (an overabundance of nutrients resulting in oxygen depletion), which is increasing throughout the region except where efficient wastewater treatment or sustainable agriculture practices have been introduced.

Drinking water contamination is a significant problem in many parts of the UNECE region and water-related diseases such as cholera, dysentery, coliform infections, viral hepatitis A and typhoid are regularly reported.

Some lakes are shrinking because of excessive water use, while the accelerated melting of glaciers (owing to rising temperatures and contamination of rainwater) is changing the hydrological and ecological systems of rivers.

Construction projects, particularly for dams, are proceeding, sometimes with little regard for how these will alter water flow and affect aquatic ecosystems.

Next steps

The first assessment is a pioneering work, initiating a long-term process. Work has already started on the second assessment, which will both complete and update the first and build upon the lessons learned. It will monitor progress in integrated water resource management, the development of transboundary agreements, joint institutions and policies. The second assessment will adopt a more subregional and thematic approach, with a particular focus on Central Asia and on climate change impacts on shared resources. It will identify emerging issues, risks and challenges, thus ensuring that the Water Convention addresses these needs in its future work.

IWAC

The International Water Assessment Centre (IWAC) was established in 2000 as the operational arm of the Water Convention. It works with Europe's leading water management agencies to support monitoring and assessment of international rivers and lakes and to promote best management practices to protect them.

The main tasks of IWAC are to assist in the development and implementation of pilot projects on the different aspects of the Convention and to organize training courses and workshops. It will also play an important role in the preparations of the second assessment.

IWAC is hosted by the Slovak Hydrometeorological Institute in Bratislava.



Preparation of the first assessment was supported by the Finnish Environment Institute, the Slovak Hydrometeorological Institute, the British Geological Survey, the German Federal Ministry for the Environment, UNEP/GRID-Europe, UNESCO and OSCE. The first assessment is available at:

<http://www.unece.org/env/water/publications/pub76.htm>