

FOREWORD

Transboundary waters play a key role in the United Nations Economic Commission for Europe (UNECE) region. Their basins cover more than 40% of the European and Asian surface of the UNECE region and are home to more than 50% of the European and Asian population of UNECE.

The Second Assessment of Transboundary Rivers, Lakes and Groundwaters is the most comprehensive, up-to-date overview of the status of transboundary waters in the European and Asian parts of the UNECE region. It has been prepared upon request by the Sixth “Environment for Europe” Ministerial Conference as an input for the Seventh Ministerial Conference in Astana in September 2011. It has been carried out under the auspices of the Meeting of the Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), and under the overall leadership of Finland.

The Second Assessment presents a broad analysis of pressures, quantity and quality status, transboundary impacts, as well as responses and future trends of our transboundary water resources. It highlights regional differences, specificities and vulnerabilities.

The overall picture that emerges from the Second Assessment is two-fold.

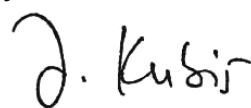
On the one hand, many efforts have been made to reduce transboundary impacts. The Second Assessment provides evidence that such efforts are bearing fruit and that in many parts of our region the status of transboundary waters is improving.

On the other hand, transboundary water resources are still under great stress as a result of poor management practices, pollution, overexploitation, unsustainable production and consumption patterns, hydromorphological pressures, inadequate investment in infrastructure and low efficiency in water use. The degradation and loss of ecosystems, and in particular wetlands, is a threat. Competition — and in some cases even conflicts — between different water uses, often in different riparian countries, is also a challenge. Climate change impacts are expected to further aggravate these problems. The need for stronger water and environmental governance, sound land management policies and, above all, integration of sectoral policies so that improvements in water management are not compromised by policies in other sectors, is as pressing as ever.

With regard to transboundary water cooperation, the message is also mixed. Globally, the UNECE region is the most advanced in terms of cooperation on transboundary waters. Almost all concerned UNECE countries have taken measures to establish transboundary water cooperation on their shared waters. Much of this progress has been facilitated by the Water Convention. However, the level and effectiveness of cooperation varies greatly: in some major transboundary rivers, a basin-wide framework for cooperation is still missing, in other cases, the level of cooperation is weak and not suited to respond to the complex challenge of balancing competing interests. These gaps and weaknesses underscore the importance of the Water Convention in supporting UNECE countries to improve transboundary cooperation.

The Second Assessment gives prominence to the challenges we face today and which we have to address together. It also describes some of the ways in which countries and joint bodies have dealt with these challenges, providing options for consideration in other parts of the region. I hope that the Second Assessment will stimulate Governments, river basin organizations and international and non governmental organizations to improve the status of transboundary waters and related ecosystems.

Ján Kubiš



Executive Secretary
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PREFACE

In 2003, the Parties to the Water Convention decided to regularly carry out regional assessments in order to keep the status of transboundary waters in the UNECE region under scrutiny, to benchmark progress and to provide the basis for continuous bilateral and multilateral work under the Water Convention. The Parties to the Convention mandated its Working Group on Monitoring and Assessment to prepare these assessments.

The First Assessment of Transboundary Rivers, Lakes and Groundwaters in the UNECE region was released at the Sixth “Environment for Europe” Ministerial Conference (Belgrade, October 2007), which requested the Meeting of the Parties to the Water Convention to prepare a second edition for the Seventh Ministerial Conference in Astana in September 2011.

While building on the results and lessons learned from the first edition, the Second Assessment is broader in scope and presents a number of novel features.

First of all, it has a strong focus on integrated water resources management (IWRM) and highlights achievements and challenges in managing waters in an integrated manner on the basis of the river basin, both at the national and transboundary levels. Consequently, transboundary surface waters and groundwaters are assessed together, at the level of the transboundary basins. The importance of water resources in supporting different economic sectors is also highlighted.

Moreover, the geographical scope regarding groundwaters has expanded. While the First Assessment only covered transboundary aquifers in South-Eastern Europe, the Caucasus and Central Asia, in the second edition transboundary groundwaters in Western, Central, Eastern and Northern Europe are also assessed. This has unveiled information gaps and the need for stronger legal and institutional bases for groundwater management and for better integration with surface waters.

Legal, institutional and socio-economic issues have a prominent place in the Second Assessment, given their crucial importance for transboundary water cooperation. As national frameworks strongly influence water management and cooperation at the transboundary level, the Second Assessment also provides information on national institutional settings for water management. The legal basis for transboundary cooperation is also examined: bilateral and river basin agreements on transboundary waters, as well as relevant multilateral environmental agreements entered into by UNECE countries and their neighbours, are inventoried.

IWRM entails an ecosystem approach to water management. Therefore, specific attention is devoted to ecological issues, notably through the assessment of selected Ramsar Sites and other wetlands of transboundary importance, prepared by the secretariat of the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) in close cooperation with experts on those sites. Such assessments underline the importance of water-dependent ecosystems in transboundary basins, not least through the various services that they provide. These case studies also show the interlinkages between transboundary wetland management and management of transboundary waters.

The Second Assessment recognizes the threats from climate change and seeks to provide a picture of the predicted impacts on transboundary water resources, as well as the measures planned or in place to adapt to climate change. The challenges deriving from climate change clearly demonstrate the value of long-term monitoring: only when reliable, consistent time series exist can the slowly evolving changes be detected, their causes analysed and the effectiveness of management interventions verified to guide further policy. Still, in many countries of the region the commitment to monitoring is not firm.

The UNECE region is highly diverse in terms of availability of water resources, pressures, status and responses, as well as with regard to the economic and social conditions that strongly influence both the pressures on and the status of water resources, as well as the capacity of countries to implement management responses. Therefore, the Second Assessment has a strong sub-regional focus and highlights characteristics and specificities of five, partly overlapping, UNECE subregions which were defined for the purposes of the Assessment. The criteria for their delineation are not based on political boundaries, but rather with a view to taking into account similarities of water management issues in the transboundary basins. Yet, even within these subregions big differences are observed.

The Second Assessment is an example of international cooperation at its best. More than 250 experts from some 50 countries were involved in its preparation, providing data and information, and engaging in the exchanges at the workshops. Most remarkably, not only the Parties to the Water Convention, but also UNECE members not Parties have contributed to the Second Assessment. Moreover, experts from countries outside the UNECE region and sharing waters with UNECE countries — namely Afghanistan, China, the Islamic Republic of Iran and Mongolia — also participated in the process. I would like to thank all the experts for their invaluable contribution. I would also like to thank the many international and national partners that joined forces in the preparation of the Assessment: the Global Water Partnership Mediterranean; the International Water Assessment Centre (the Water Convention collaborative centre hosted by the Slovak Hydrometeorological Institute); the secretariat of the Ramsar Convention; the secretariats of the international commissions for the Danube, Elbe, Meuse, Moselle and Saar, Oder, Rhine, Sava and Scheldt; the Global Resource Information Database Europe of the United Nations Environment Programme (UNEP/GRID-Geneva); and the International Groundwater Resources Assessment Centre. Finally, I would like to thank the Governments of Finland, Switzerland, Sweden, Germany, Hungary, the Netherlands and Georgia for their financial support to the Second Assessment. And last, but not least, my sincere thanks go to the UNECE secretariat of the Water Convention, in particular to Annukka Lipponen, coordinator and main author of the Second Assessment, and to Francesca Bernardini, Secretary to the Convention. Without their expertise, commitment and dedication the Second Assessment could not have been realized.

The future economic and social development of the UNECE region will very much depend on how we manage our waters. All living organisms are dependent on water. Water is a cornerstone

for societies: water-related ecosystem services are necessary for agriculture and forestry, but also a precondition for industry and service activities, as raw material and as a source of renewable energy. Under growing pressures and demands from all sectors of society — in particular agriculture, energy, transport, urban development and tourism — water has become a critical and, in some cases limiting, factor for sustainable development. Green economy, today high on the agenda of most countries, can only be realized when water is recognized as an integral part of all sectoral policies, and sound policies and measures for the protection and sustainable use of this precious resource are in place.

The Second Assessment abounds with information that can serve as a firm foundation for future efforts towards sustainable growth in our region. It reviews persistent environmental problems and emerging issues and it lays out challenges and opportunities to support informed decision-making on the management of shared water resources. Its aim is to spur further action by Governments, river basin organizations and international and non-governmental organizations to improve the status of transboundary waters and related ecosystems.

Lea Kauppi



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