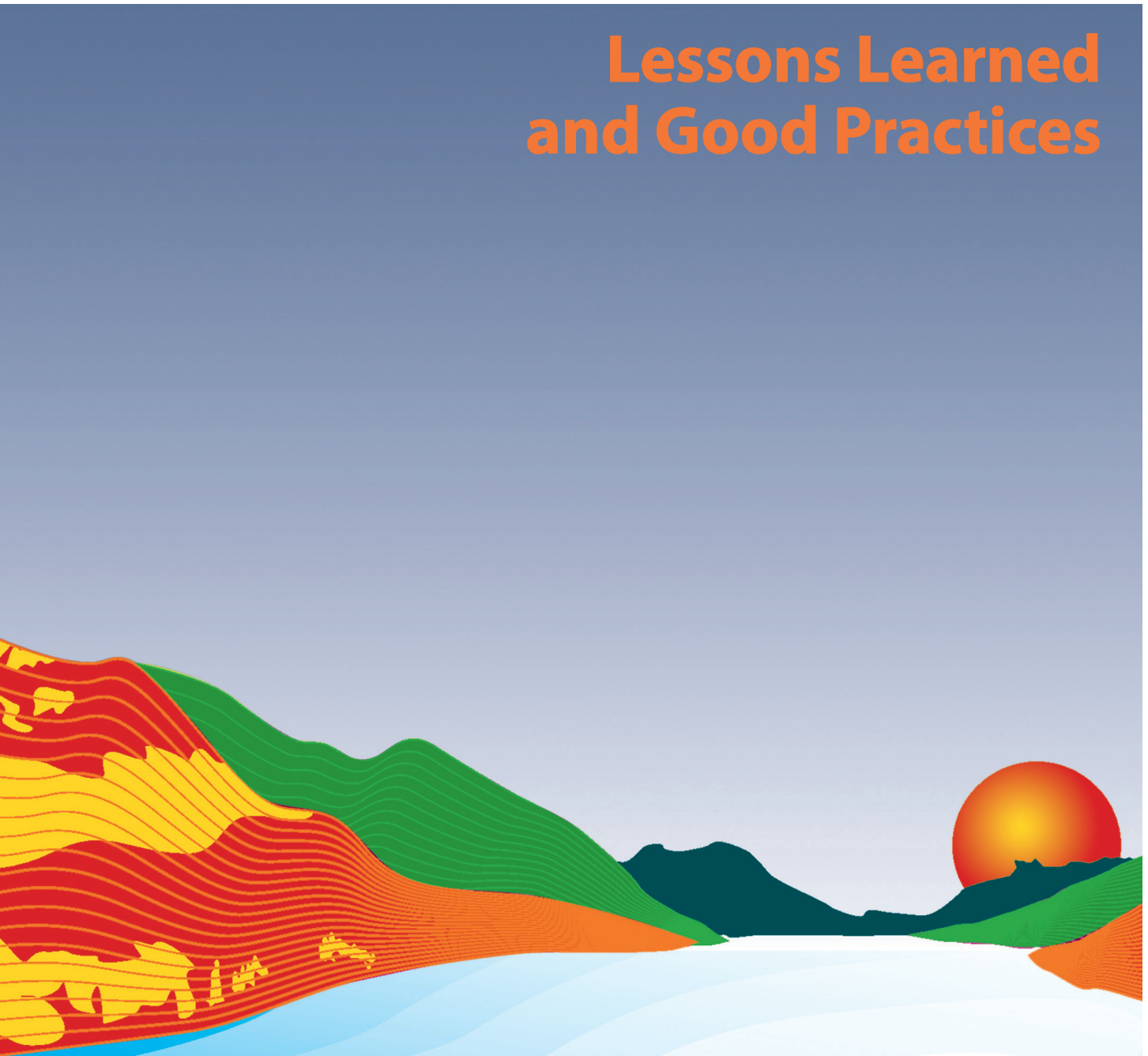


UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE
INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS

Water and Climate Change Adaptation in Transboundary Basins:

Lessons Learned and Good Practices



UNITED NATIONS



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FOREWORD

In many water basins around the world, the impacts of climate change on ecosystems and on society are becoming more and more visible. Building resilience becomes a major issue as climate change affects water quantity and quality, water temperature, water-related ecosystems and the magnitude and occurrence of extreme weather events such as floods and droughts. Through its impacts on water resources, climate change is affecting many sectors, including agriculture, energy, fisheries, tourism, health and biodiversity.

Both water and climate change know no borders. Transboundary cooperation in adaptation to climate change is therefore necessary to enable the sharing of the costs and benefits of adaptation measures, ensure their optimal location in a river basin and prevent the possible negative effects of unilateral adaptation measures. Transboundary cooperation on adaptation can also bring additional benefits in terms of conflict prevention, socioeconomic development and human well-being, and can even motivate transboundary cooperation in other areas. But how can this be done?

The United Nations Economic Commission for Europe (ECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) provides an important legal and institutional framework for transboundary water management and climate change adaptation. Following the entry into force of an amendment to the Convention on 6 February 2013, the treaty is open to all Member States of the United Nations. Indeed, since 2011, the climate change activities under the Convention have been one of the drivers of the global interest in the Convention, attracting participants from all over the world.

When the Task Force on Water and Climate under the Water Convention was created in 2006, the level of awareness of climate change impacts on water resources was much lower than today. When the ECE Guidance on Water and Adaptation to Climate Change was adopted in 2009, adaptation efforts were mainly being undertaken at the national level. Since then, member States engaged in a platform for the exchange of experience and a programme of pilot projects, resulting in the creation of a global network of basins working on climate change adaptation in 2013. The network is managed by ECE together with the International Network of Basin Organizations (INBO), which has 188 members from all over the world.

The Guidance, the network and the pilot projects have together given a significant boost to adaptation efforts and have contributed to much recent progress. Many countries have developed national adaptation strategies and plans and some transboundary basins, especially some with basin organizations, have started addressing climate change adaptation from the transboundary perspective. Several major river basins, such as the Danube, Dniester, Mekong, Neman, and, most recently, the Rhine, have developed adaptation strategies or are in the process of doing so. In addition, the importance of water and transboundary cooperation has been recognized in several international policy frameworks such as the Nairobi work programme on impacts, vulnerability and adaptation to climate change under the United Nations Framework Convention on Climate Change and the European Union's Strategy on Adaptation to Climate Change.

However, numerous challenges regarding climate change adaptation in transboundary basins still persist. Many basin organizations have not yet begun or are only just starting to address the issue, there remain many uncertainties about how best to adapt water management to climate change and those basins that do have adaptation strategies need now to move towards implementing them. In addition, transboundary aspects are rarely considered in national adaptation strategies.

The present publication therefore collects a vast range of experiences to date, in order to illustrate the different steps in developing a basin-wide adaptation strategy with concrete examples and thereby to distil some recommendations to take into account in similar efforts in the future. It complements the Guidance by describing experiences in following many of the steps of the adaptation process.

The importance of water and transboundary cooperation in climate change adaptation needs to be recognized in global and regional legal and policy frameworks on climate change. We hope that this publication will encourage and facilitate this process as well as motivate and support additional cooperation on climate change adaptation in transboundary and national basins.



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KEY MESSAGES

Climate change impacts are both episodic, such as extreme weather events, and long-term and permanent, for example, due to changes in flow regimes and absolute water balances. To address uncertainties that exist about the direction, speed and intensity of climate change, water resources policy and management should include practices that ensure that water usage is ecologically sensitive, are consistent with sustainable development and are robust across a wide range of climate futures.

Because of the complexity of climate change impacts on the water cycle and how these impacts can be expressed in one part of a basin but felt in other, far distant parts of the same basin, effective adaptation to climate change requires coordination, integration and coherence across political, sectoral, ecological and institutional boundaries.

Authorities in some water basins — particularly the 14 members of the ECE/INBO global network of basins working on climate change adaptation — have already started the planning and development of activities related to adaptation to climate change. It is crucial to benefit from their experiences by identifying and collecting the good practices from around the world and by sharing those good practices and lessons learned — the aim of this publication. The key messages that emerge from those experiences include:

- On the one hand, adaptation within a transboundary basin is a particular challenge, as it requires strong cooperation between the riparian countries on a cross-cutting issue (i.e., climate change) that demands attention at all levels and across all sectors and institutions and necessitates the involvement of many stakeholders with conflicting and competing needs across multiple physical, political and jurisdictional boundaries. On the other hand, transboundary cooperation can enable more efficient and effective adaptation, by pooling available data, models, scenarios and resources and enlarging the planning space for locating adaptation measures.
- Proper institutional arrangements and the application of the principles of integrated water resources management are essential elements for transboundary cooperation in climate change adaptation. A basin organization can play a crucial role in climate change adaptation and should be given a mandate to address it.
- A flexible legal framework, such as a transboundary agreement, can support the development and implementation of adaptation strategies and measures.
- Proper communication is important to allow transboundary cooperation, among others, as a critical channel for fostering a common understanding of vulnerability, adaptation policy and action in a transboundary setting.

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