



Transboundary water cooperation as a means to address climate change

A policy brief of the Transboundary Water Cooperation Coalition to inform climate discussions and negotiations at COP28 and beyond

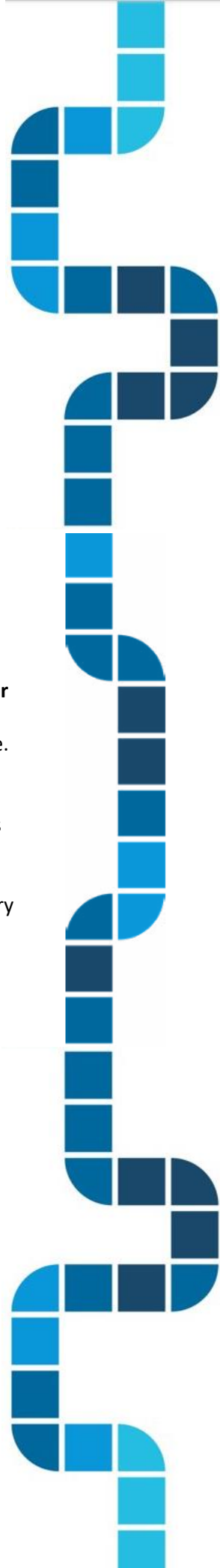
Water resources globally are suffering from climate change impacts. At the same time, water resources and associated ecosystems provide a significant potential for climate change adaptation and mitigation. Freshwater was thus for the first time included in the COP27 cover decision which *“emphasizes the importance of protecting, conserving and restoring water and water-related ecosystems, including river basins, aquifers and lakes, and urges Parties to further integrate water into adaptation efforts.”*¹

An additional challenge, but also an opportunity, is that **transboundary waters account for 60 per cent of the world’s freshwater flows** and more than **3 billion people depend on them**. The resources and people in many transboundary basins are particularly vulnerable to climate change. The 6th IPCC assessment (2022)² and the IPCC synthesis (2023)³ reports recognize transboundary risks as an important challenge resulting in the rise of new and unexpected types of risks. They state that increasing transboundary risks are projected across the food, energy and water sectors requiring climate-informed transboundary management. Effective and sustainable cooperation over the world’s transboundary lakes, rivers and aquifers is a critical yet often underexploited facet of climate change adaptation strategies. Below are some ways that advancing transboundary cooperation can support climate change adaptation and mitigation.



Global Stocktake

Effective and sustainable transboundary water cooperation helps to address climate change more effectively by analyzing transboundary risks, reducing uncertainties through exchange of data, enlarging the planning space, developing joint strategies and plans which results in better coherence of adaptation and mitigation actions at the basin scale and more efficient and fair use of resources as well as avoidance of unilateral measures. For instance, cooperation on conjunctive use of surface water and groundwater in transboundary basins can reduce vulnerabilities of water supply systems and mitigate water supply stress. Furthermore, transboundary cooperation provides many opportunities for learning and knowledge transfer,⁴ which is especially valuable in the on-going Global Stocktake process. The Synthesis report on the technical dialogue of the first Global Stocktake states: *“For example, early warning systems can integrate data collection into developed risk profiles and help decision makers understand transboundary risks more clearly.”*⁵



 **Global Goal on Adaptation (GGA)**

Transboundary cooperation was mentioned by different countries in the discussions on the Global Goal on Adaptation (GGA) as it can enable more efficient adaptation and avoid maladaptation together with other enablers such as coordination, inter-sectoral cooperation and improving synergies between various national and global policies. Water was addressed prominently in the GGA discussions as one of the overarching themes together with food, health, ecosystems and infrastructure which *“are universally applicable and can thus accommodate the priorities of all Parties.”*⁶

The transboundary dimension in GGA can be realized by contribution of transboundary basin organizations, development of transboundary risk assessments, transboundary adaptation plans and transboundary early warning systems,⁷ facilitating funding incl. from climate donors for transboundary adaptation as well as integration of transboundary aspects into National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs). Examples of country adaptation policies which integrate transboundary and/or regional approaches include NAPs of Albania, Bangladesh, Mozambique, Pakistan, Sierra Leone, State of Palestine, South Sudan, Sudan and Timor-Leste.⁸

 **Energy transition**

Water is a prerequisite for mitigation efforts linked to the transition towards clean energy, especially for hydroelectric power generation, cooling in nuclear power plants, the use of geothermal resources, and for the extraction and processing of certain minerals. It also plays a key role in the industrial production of renewable energy technologies and batteries on large scales, which requires large amounts of metals, minerals and other natural resources. However, the drive to clean energy can lead to heavy social and environmental impacts and even to conflicts in transboundary basins, linked to water allocation or water pollution. Transboundary cooperation is therefore key to prevent and reduce these risks and ensure that the energy transition is just. In this respect, the principles of international water law provide a solid framework that can guide towards sustainability and equity.

 **Financing and investment**

Climate change funding can be facilitated by transboundary cooperation. Strong basin organizations and transboundary climate strategies can bring additional financing for implementation of national adaptation measures such as those in NDCs and NAPs and, consequently to local climate actions. To illustrate, transboundary basin organizations supported national adaptation planning and implementation in the Amazon, the Danube, the Dniester, the Mekong, the Niger, Lake Victoria and the Volta basins.⁹ Also, as shown in a recent study of the Adaptation Fund,¹⁰ transboundary cooperation enhances the impacts of climate finance as it can generate benefits at the regional level, beyond those which could be achieved with only national interventions, allows cost savings as well as more efficient use of both financial and human resources. For example, countries can pool resources to fund large-scale adaptation and mitigation projects, reducing costs and increasing efficiency. Finally, transboundary basin organizations can bring various stakeholders for facilitating funding.



Disaster risk reduction

Transboundary cooperation enhances the capacity of countries to prepare for and respond to climate-induced disasters. By sharing hydrological and other data, countries can better understand and address transboundary risks, improve forecasting for extreme events and coordinate their disaster responses as recognized in the Sendai Framework. Cooperation on transboundary early warning systems is also a prerequisite to ensure that everyone on Earth is protected from hazardous weather, water, or climate events.



Nature

Ecosystems know no borders and cooperation in nature conservation and restoration is more effective the larger the areas are, thus also crossing national boundaries. In this respect, transboundary cooperation can support implementation of the Kunming-Montreal Global Biodiversity Framework by contributing to maintaining and enhancing resilience of all ecosystems by 2050 and specifically to the restoration and effective conservation and management of inland water ecosystems.¹¹

Application of the ecosystem-based approach is especially valuable for shared wetlands and deltas, which require coordinated management. In several transboundary basins, such as the Rhine, Dauria, Dniester or Okavango, cooperation on ecosystem preservation or restoration of wetlands has supported both climate change adaptation and mitigation with many co-benefits for other sectors such as tourism.



Putting people at the heart of effective cooperation

By anticipating and responding collectively to the challenges posed by climate change, riparian countries can ensure water security, protect livelihoods and maintain regional stability or increase regional integration in the face of uncertainty. Transboundary water cooperation in climate change adaptation is not just about managing water; it's about ensuring that countries are prepared to face the future in a unified and strategic manner.

Transboundary water cooperation should therefore be considered in climate discussions and negotiations at COP28 and beyond.



The Transboundary Water Cooperation Coalition is a diverse, multi-stakeholder coalition of actors made up of the following countries: Chile, Dominican Republic, Estonia, Finland, France, Germany, Hungary, Iraq, Kazakhstan, Morocco, Namibia, The Netherlands, Panama, Senegal, Slovenia, Switzerland, Uganda; the European Union as a regional integration organization; as well as and the following organizations: ESCWA, Global Environment Facility (GEF), Inter-American Development Bank (IaDB), Organization of American States (OAS), UNCDF, UNDP, UNECE, UNEP, UNESCO, Centro Regional para la Gestión de Aguas Subterráneas en América Latina y el Caribe (CeReGAS), EcoPeace Middle East, Geneva Water Hub, Global Water Partnership (GWP), International Groundwater Resources Assessment Centre (IGRAC), IHE Delft Institute for Water Education, International Network of Basin Organizations (INBO), IUCN, Stockholm International Water Institute (SIWI), University of Kinshasa, Water Diplomacy Center/Jordan University of Science and Technology.

¹ Decision -/CP.27 on Sharm el-Sheikh Implementation Plan, https://unfccc.int/sites/default/files/resource/cp2022_10a01_E.pdf

² Climate change 2022: Impacts, Adaptation and Vulnerability, Technical summary, IPCC, 2022, https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_TechnicalSummary.pdf

³ IPCC Synthesis Report: Climate Change, 2023, https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf

⁴ Transboundary Approaches to Climate Adaptation: Lessons Learned from the Adaptation Fund's Regional Projects and Programmes, <https://www.adaptation-fund.org/wp-content/uploads/2022/04/Transboundary-Adaptation-final-April-2022.pdf>

⁵ Technical dialogue of the first global stocktake. Synthesis report by the co-facilitators on the technical dialogue, <https://unfccc.int/documents/631600>

⁶ Workshops under the Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation. Report by the secretariat: <https://unfccc.int/documents/631979>

⁷ Summary of the fifth workshop under the Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation: Changing mindsets and worldviews towards transformation in adaptation, with the inclusion of indigenous peoples' wisdom, values and knowledge and consideration of crosscutting issues <https://unfccc.int/event/4th-workshop-Glasgow-Sharm-el-Sheik-wp-gga>

⁸ Submitted NAPs, 2023, <https://napcentral.org/submitted-naps>

⁹ Progress on climate change adaptation in the Global network of basins working on climate change adaptation, https://unece.org/sites/default/files/2023-07/Global_network_overview_pilot%20projects_progress_May2023_ENGL_Final_0.pdf

¹⁰ Transboundary Approaches to Climate Adaptation: Lessons Learned from the Adaptation Fund's Regional Projects and Programmes, <https://www.adaptation-fund.org/wp-content/uploads/2022/04/Transboundary-Adaptation-final-April-2022.pdf>

¹¹ Kunming-Montreal Global Biodiversity Framework, <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>