



Transboundary waters: cooperation from source to sea

Integrating a source-to-sea approach into transboundary water cooperation is needed to meet the goals of the Water Convention. Marine and coastal resources are jeopardized by upstream activities on land and along rivers. Harnessing stronger integration and coordination from source to sea will strengthen the Water Convention and its contribution to sustainable management and peaceful sharing of transboundary waters.

A tool for transboundary river cooperation

Parties to the transboundary water conventions – UNECE Water Convention and UN Watercourses Convention – have recognized the important connection between transboundary rivers and the coastal and marine environment. As the 8th Session of the Meeting of Parties to the Water Convention convenes, evidence of the linkages between terrestrial, freshwater and marine environments suggests it is time to strengthen source-to-sea connections in transboundary water cooperation.

Marine and coastal resources represent enormous assets for local and global economies, but they may be jeopardized by upstream activities on land and along rivers. Approximately 8 million tons of plastic enter the ocean from land-based sources every year. Six of the 10 rivers contributing 90 per cent of the plastic waste to oceans are transboundary rivers. Nutrient loads from unmanaged agricultural runoff and inadequate wastewater treatment continue to cause eutrophication and spread of dead zones in our coastal and marine waters. Flows of some rivers are so highly diverted that little water reaches the sea, robbing coastal ecosystems of the water, sediment and nutrients they need. Fragmentation of rivers – from dams, weirs and other infrastructure – has radically reduced anadromous and migrating fish populations worldwide. All this leads to a water-food-energy-ecosystem nexus crisis.

To tackle these challenges, a source-to-sea perspective is needed. This holistic approach considers the linkages across the full con-

tinuum from source to sea, i.e. from land to freshwater, delta, estuary, coastline, nearshore and ocean, and addresses six key flows that are defining attributes of transboundary rivers: water, sediment, biota, pollutants, materials and ecosystem services. The source-to-sea approach builds on the four areas of focus of the Water Convention – prevent, control and reduce pollution; promote ecologically sound and rational water management; share water in a reasonable and equitable way and conserve and/or restore ecosystems.

Source-to-sea in the UNECE Water Convention

The seeds for integrating the source-to-sea approach in transboundary water cooperation already exist in the Water Convention but the convention is not comprehensive in its acknowledgement of source-to-sea linkages. Transboundary cooperation too often ends at the mouth of the river. As seen in the case of the Black Sea, early recognition of source-to-sea priorities, i.e. the links between Danube River inflow and Black Sea environmental status, factors into the success of efforts to reduce nutrient pollution flowing to the Black Sea.

Integrating the source-to-sea approach into transboundary cooperation has many benefits. It draws in new stakeholders that bring innovative solutions and incentives for taking action. It can reduce risk by taking into account a larger universe of costs and benefits and can avoid unintended consequences by highlighting impacts that can affect downstream, as well as upstream, ecosystems and communities. By crossing the boundary

of the mouth of the river, the source-to-sea approach addresses a critical challenge facing sustainable development – the interconnectedness of ecosystems and development goals.

Implementation of the 2030 Agenda for Sustainable Development, in particular SDG 6 and 14, requires harnessing stronger integration and coordination from source-to-sea. Governance

and management arrangements to deal with upstream/downstream linkages are often fragmented, struggling to balance diverse and potentially conflicting management objectives, stakeholder priorities, and institutional arrangements. Explicitly incorporating the source-to-sea approach will strengthen the Water Convention and its contribution to sustainable management and peaceful sharing of transboundary waters.

Recommendations

- **Address source-to-sea priorities as part of the transboundary river basin cooperation:** More firmly integrating source-to-sea priorities as part of transboundary river basin cooperation will accrue greater benefits, reduce risks and avoid unintended consequences for the signatories of the Water Convention and coastal and marine environments.
- **Incentivize source-to-sea priorities in transboundary cooperation:** Directing funds toward source-to-sea priorities in transboundary river basin countries and their water cooperation activities will contribute to the international community's commitment to achieving the 2030 Agenda for Sustainable Development.
- **Develop shared definitions and approaches to source-to-sea implementation:** Investing in methods, tools, capacity building and technical assistance in applying the source-to-sea approach to transboundary river basin cooperation will strengthen source-to-sea implementation through shared definitions.
- **Consider the UNECE Water Convention as a mechanism to enhance marine protection:** Incorporating the source-to-sea approach into transboundary water cooperation will lead to marine protection through reducing unsustainable human activities on land, along rivers and the coast and at sea that are imposing a heavy burden on water-related ecosystems.
- **Address source-to-sea priorities in relevant working groups and task forces of the UNECE Water Convention:** Building on the existing source-to-sea commitments, the United Nations Economic Commission for Europe (UNECE) should include the source-to-sea approach in Water Convention meetings, working groups and task forces.

About the S2S Platform and SIWI

The **Action Platform for Source-to-Sea Management (S2S Platform)** is a multi-stakeholder initiative to exchange and generate knowledge, and support joint action for improved management of land, freshwater, coastal and marine linkages.

- The mission of the S2S Platform is to support coordinated and innovative approaches to governance and management through generating and sharing knowledge, as well as networking and influencing policy making.
- The S2S Platform is open to all stakeholders that are committed to improving coherence and coordination in land, freshwater, coastal and ocean management and includes more than 20 UN organizations, research institutes, international environmental NGOs, conventions, intergovernmental sea and river basin commissions.
- The S2S Platform is coordinated by SIWI. For more information, visit our website: www.siwi.org/what-we-do/source-to-sea

Stockholm International Water Institute (SIWI) is an international water institute working to solve global water challenges by improving how water is used and managed. SIWI uses its convening power to influence decision-makers, facilitate dialogue and build knowledge on water issues.

SIWI organizes World Water Week – the leading annual event on global water issues – and the Stockholm Water Prize and Stockholm Junior Water Prize.

