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Economic Commission for EuropeMeeting of the Parties to the Convention on
the Protection and Use of Transboundary
Watercourses and International Lakes**Working Group on Integrated Water
Resources Management**

Nineteenth meeting*

Working Group on Monitoring and Assessment

Nineteenth meeting*

Geneva, 6-8 May 2024

Item 7 of the provisional agenda

Supporting monitoring, assessment and information-sharing in transboundary basins**Key messages of the draft publication on good practices and
lessons learned in transboundary data-sharing****Prepared by the secretariat***Summary*

At its ninth session (Geneva (hybrid), 29 September–1 October 2021), the Meeting of the Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) entrusted the Working Group on Monitoring and Assessment to collect good practices and lessons learned in transboundary data-sharing and synthesize them in a publication, as part of the activities foreseen in the programme of work for 2022–2024 for programme area 2: Supporting monitoring, assessment and information-sharing in transboundary basins (ECE/MP.WAT/63/Add.1).

The fourth joint meeting of the Working Groups on Integrated Water Resources Management and on Monitoring and Assessment (Tallinn, 28–30 June 2022) approved the outline of the new publication (ECE/MP.WAT/WG.1/2022/INF.3–ECE/MP.WAT/WG.2/2022/INF.3), including the template for case studies.

An open call for case studies for the new publication was issued by the secretariat in July 2022. In addition, several case studies were developed following the Regional workshop on monitoring, assessment and information-sharing in transboundary basins in Central Asia (Astana, 1–2 February 2023) and the Workshop on strengthening legal and institutional arrangements for transboundary water cooperation and data exchange (Beirut, 30–31 May

* Fifth joint meeting of the two Working Groups.



2023). Based on the case studies received, the secretariat, with the support of the lead expert and in consultation with lead Parties (Finland and Senegal), has developed the draft.

During the Expert Meeting on Good Practices and Lessons Learned in Transboundary Data- Exchange (Geneva, 18–19 April 2023) and the eighteenth meeting of the Working Group on Monitoring and Assessment (Geneva, 17–18 October 2023), participants provided feedback on the structure and text of the draft, and subsequently provided additional lessons learned and case studies to the secretariat for integration into the next version of the publication. In July 2023, the text was submitted for review to participants of the Expert Meeting and case study authors, and, in December 2023, the revised text was submitted for review to case study authors.

The final draft of the publication, which includes 43 lessons learned, supported by 78 case studies, is submitted for review to the fifth joint meeting of the Working Group on Integrated Water Resources Management and the Working Group on Monitoring and Assessment (Geneva, 6–8 May 2024) as the informal document *Good Practices and Lessons Learned in Transboundary Data-sharing (Final draft)* (ECE.MP.WAT/WG.1/2024/INF.3-ECE/MP.WAT/WG.2/2024/INF.3).

The present document includes key messages of the publication. The references to lessons in the present document refer to lessons learned as included in the informal document *Good Practices and Lessons Learned in Transboundary Data-sharing (Final draft)* (ECE.MP.WAT/WG.1/2024/INF.3-ECE/MP.WAT/WG.2/2024/INF.3).

The Working Groups are invited to:

- (a) Review and comment on the key messages contained in the present document with a view to approving them;
- (b) Undertake a final review of the draft of the publication (ECE.MP.WAT/WG.1/2024/INF.3-ECE/MP.WAT/WG.2/2024/INF.3);
- (c) Entrust the secretariat, in consultation with the lead Parties (Finland and Senegal), with the task of finalizing the text, taking into account the comments made, and preparing and printing the final publication for the tenth session of the Meeting of the Parties to the Water Convention (Ljubljana, 23–25 October 2024).

I. Introduction

1. As humanity faces a triple planetary crisis of climate change, pollution and biodiversity loss, the availability of data and information is the foundation for sustainable water management. Data and information are even more important when it comes to reducing the impact of extreme events, such as floods and droughts, which are more likely to occur under climate change. Because water does not stop at administrative boundaries and because the constituent elements of the triple planetary crisis cannot be solved in isolation, the sharing of data and information across political, sectoral, environmental and institutional boundaries is essential.

2. Countries worldwide have developed, or are developing, agreements and arrangements for cooperation on water management regarding many transboundary rivers, lakes and aquifers. Institutions, including joint bodies for transboundary water cooperation, are working to implement these agreements. Under such agreements, countries and institutions are working to develop and maintain data-sharing systems for their transboundary basins. At the same time, in many cases, the first steps to sharing data and information are taken in the absence of agreements and lead to the strengthening of cooperation and, with time, the development of legal frameworks and joint institutions. The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) provides the legal framework for monitoring, assessment and exchange of information and data in transboundary basins, and assists countries and joint bodies in implementing these obligations through its institutional platform.

3. This publication aims to identify, capture and learn from these practices and experiences in transboundary basins. The examples included in this publication cover many different regions of the world, where the issues to be addressed when working on data-sharing vary, including specific sensitivities regarding sharing data and information. The examples in this publication can inspire other countries and basins dealing with similar issues by showing that many of these difficulties can be overcome. The key messages emerging from the good practices and experiences are listed below. For each key message, references to the relevant lessons learned are provided to facilitate the identification of more detailed information in the respective lessons learned and supporting case studies.

II. Key messages

A. Water management needs timely, targeted, relevant, sufficient, valid and reliable data

(Lessons 1 and 38–40)

4. Good and informed water governance¹ and water management at all levels need timely, targeted, relevant, sufficient, valid and reliable data. The triple planetary crisis of climate change, pollution and biodiversity loss enhances the need for data and information. Data- and information-sharing provides a necessary common basis and is therefore a key instrument for effective transboundary water resource management and aquatic ecosystem management. It enables an assessment of the current state of a given basin in its entirety and trends over time, including the effects of climate change, allowing the development of a management strategy that considers the specifics of the basin.

¹ Water governance is the set of rules, practices and processes (formal and informal) through which decisions on the management of water resources and services are taken and implemented, stakeholders articulate their interest and decision-makers are held accountable (www.oecd.org/governance/oecd-principles-on-water-governance.htm).

B. Data-sharing needs an enabling environment

(Lessons 2–9 and 41)

5. An enabling environment for data-sharing, including policy, legal, institutional, informational and financial arrangements, is necessary for the effectiveness and sustainability of data-sharing and can subsequently significantly enhance transboundary water cooperation. This also includes the existence of adequate and continuous communication and cooperation channels. Furthermore, an open data approach is important in this regard. In particular, lack of funding often limits collection and sharing of data. New technologies, such as improved remote sensing, drones and sensors, can nevertheless help riparian countries collect and share data and information at reduced cost.

C. Groundwater data and information are essential for proper water management

(Lesson 19)

6. Available data and information on groundwater, as well as the sharing of available data, are generally more limited than in the case of surface water, due to a lack of access to technologies for measuring and mathematically modelling groundwater. This can undermine the potential role that groundwater can play in enhancing water security and resilience, especially in a transboundary context. Information is needed on the exchange of flows between surface water and groundwater. Information is also needed on the influence of saline intrusion from oceans on surface water and groundwater, especially in drought situations. Such information is also essential for the conjunctive management of surface water and groundwater, including in a transboundary context.

D. Build a common understanding of the functioning of the basin, including human activities

(Lessons 10, 14, 17–18 and 22–23)

7. To ensure good cooperation and joint management of a given basin, a common conceptual understanding of the functioning of the basin (location and volume of water, origin of water, direction and rate of flow, water quality, aquatic biodiversity, influences on water quantity and quality, different uses of water, etc.) is needed. This will support the development of a common understanding for the management and protection of transboundary water resources. Information on planned measures and on pressures and sources of pollution (e.g., from industrial, municipal, agricultural or other sectors) is also needed to provide an overview of potential anthropogenic impacts in transboundary waters. The involvement of experts such as hydrologists and hydrogeologists is needed to interpret the data.

E. Take a pragmatic and focused approach to monitoring

(Lessons 13, 15 and 25)

8. When developing or expanding a monitoring network, it is important to: be pragmatic, focused and start with the most important issues and most relevant indicators in a given basin; and establish a routine and gain experience with monitoring, and then expand the scope, according to staff and budget capacity.

F. Political will is essential

(Lessons 16 and 33–34)

9. A technical approach to collection and sharing of data and information in transboundary basins that only addresses the technicalities of data-sharing is necessary but

not sufficient. Strong political will at all levels (local, regional, national and transnational) is required for policy decisions, such as the conclusion of agreements and other arrangements for transboundary water cooperation and protocols for data- and information-sharing, as well as for open access to data, stability and solidarity among riparian countries. Leadership is needed to initiate and sustain cooperation, including data- and information-sharing. Basin organizations can support such leadership. Identification of common interests is helpful. Political commitment is needed for government support for data and information collection and use in decision- making, including in joint (transboundary) and national strategies and plans. The inclusion of target 6.5, supported by indicator 6.5.2, in the Sustainable Development Goals and the results of reporting on indicator 6.5.2 can help to consolidate political will.

G. Involve stakeholders

(Lessons 11–12, 35–36 and 42)

10. Water management requires cooperation between different sectors at different levels, from the national (e.g., ministries and research institutes) to the local (e.g., municipalities, farmers, local communities) and civil society. Stakeholders' interests, values, biases, preferences, backgrounds and cultural perspectives can vary significantly, especially in a transboundary cooperation situation. Therefore, the whole range of sectors and groups need to be represented in the decision-making process, including when deciding what data and information are relevant. Stakeholders should organize themselves around the issues and be involved in the process of identifying relevant data and information for sustainable integrated water management. Capacity-building around this process is important to bring all stakeholders to the same level of understanding. In addition, presenting and communicating data and information in an understandable way supports stakeholder involvement in water management and transboundary water cooperation.

H. Collaborate across different levels and disciplines

(Lessons 20–21, 26–32, 37 and 43)

11. There are different approaches and techniques for collecting, analysing and disseminating data, as well as a range of definitions and standards that need to be harmonized in the context of data- and information-sharing in a transboundary basin. Models can assist in the analysis and evaluation of data and thus in harmonization. International standards can also assist in harmonization, such as the World Meteorological Organization standards for hydrological and meteorological data. Collaboration at different levels and with different disciplines can help in understanding the context of the results and thus increase the value of the data collected. However, this requires accessibility and comparability of data, as well as regular evaluation of the monitoring system.

I. Developing transboundary early warning mechanisms

(Lesson 24)

12. In order to take timely action, it is important that data and information on potential floods and droughts, as well as accidental pollution be shared among neighbouring countries as soon as possible. This will help reduce the risks associated with floods, droughts, water-related diseases, fish kills, etc. Developing transboundary early warning mechanisms requires the timely sharing of data on the above-mentioned events, as well as appropriate procedures to ensure that the right information reaches the right institutions and people at the right time.

III. Benefits of regular and planned monitoring and data-sharing in transboundary basins

13. Although developing and maintaining monitoring systems and sharing data requires significant effort, regular and planned monitoring and data-sharing in transboundary basins has many benefits. Key benefits as identified by many countries include the fact that such monitoring and data-sharing:

(a) Enables an assessment of the current state of a given basin in its entirety and trends over time that allows the development of a management strategy that accounts for the particularities of the basin;

(b) Enables assessment of the impacts of climate change on the water resources and the anthropogenic impacts on biodiversity and ecosystems, both locally and at the basin level;

(c) Enables identification of current and emerging problems and impacts of human pressures in the basin;

(d) Enables an estimation of the flux of substances from transboundary rivers or groundwater to oceans;

(e) Enables a common understanding among the riparian countries of the water management issues at hand and allows development of water management and other measures that can strengthen efforts to address the various needs of water users, including ecosystems, in the basin;

(f) Supports increased transparency and mutual understanding and, with that, the building of trust between various actors in a transboundary context;

(g) Enables a rapid assessment and early warning of the impacts of an incident (e.g., flood, drought, chemical spill) on a transboundary water body and its surroundings;

(h) Enables informed decision-making for the development and implementation of water management strategies and plans, joint sustainable projects and evaluation of the effectiveness and efficiency of management and remediation activities.

14. These key benefits demonstrate that data- and information-sharing is essential for the development of more efficient and effective policies and measures in transboundary basins.
