Expert meeting on good practices and lessons learned in transboundary data sharing
Geneva/hybrid, 18-19 April 2023

# Programme of work 2022-2024
Programme Area 2
Supporting monitoring, assessment and information sharing in transboundary basins

Lead Parties: Finland and Senegal

- **Update *Strategies for Monitoring and Assessment of Transboundary Rivers, Lakes and Groundwaters*** (global edition, in AR, EN, FR, RU, SP)

- **Develop a publication on good practices and lessons learnt in transboundary data exchange**

- **Up to 3 training or regional workshops/sessions** on monitoring, information and data

- **Tailored assistance** for developing joint or coordinated monitoring or information and data exchange - upon country request, pending availability of resources (e.g. Senegalo-Mauritanian Aquifer Basin Project)
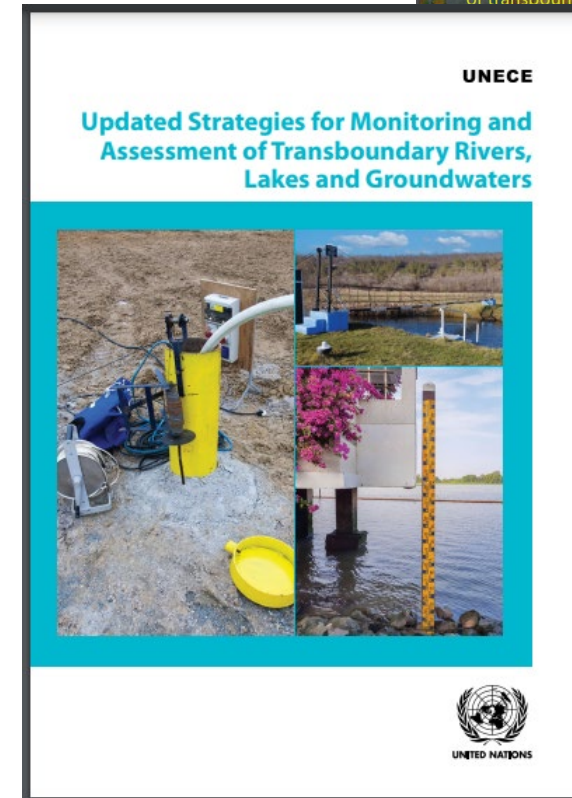
Objectives of Expert meeting

- Provide feedback on the structure and text of the 1st draft of the publication *Good practices and lessons learned in transboundary data sharing*

- Comment on the proposed lessons learned and identify additional ones

- Comment on the proposed case studies and provide additional ones

- Commit to develop additional lessons learned and case studies

- Discuss next steps to develop the publication

Purpose of the publication "Good practices and lessons learned in transboundary data sharing"

- Collection of good practices and case studies on data and information sharing

- Range of sources:
  - Reporting under the Water Convention and on SDG indicator 6.5.2
  - Projects and other work under the Water Convention
  - Workshops and other meetings organized under the Convention's programme of work
  - Case studies collected

- Learn from real life examples, including difficulties and challenges, and good solutions

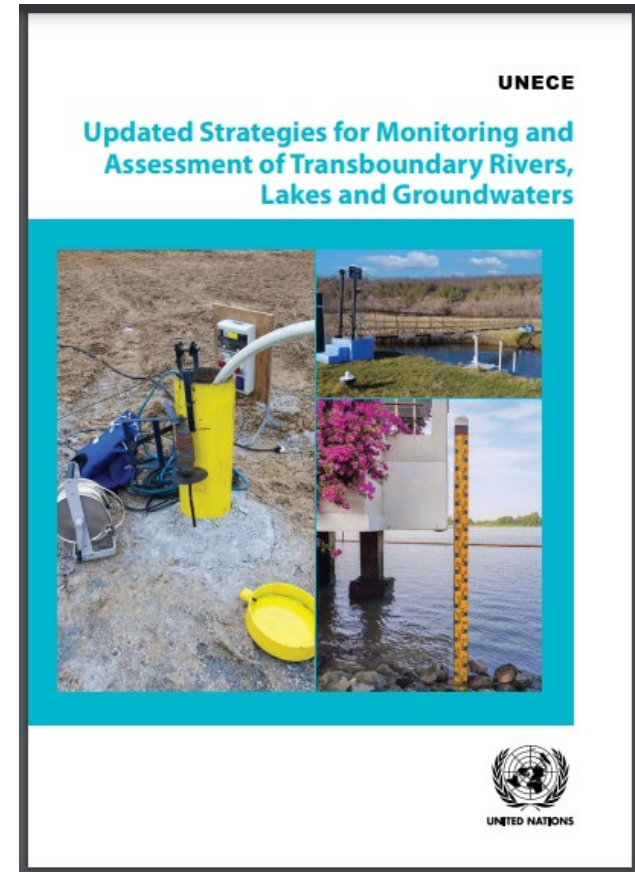- Collection of good practices
- Lessons learned

What's the difference from "Updated Strategies" and the added value of "Good practices"?

- Focus on data sharing (less on monitoring and assessment)
- Focus on real examples (rather than strategic advice)

but… coherency among the two publications needed ☺

both publications: global perspective

Background of the publication

- 9th Meeting of the Parties (Geneva, 29 September – 1 October 2021) -> Working Group on Monitoring and Assessment to collect good practices and lessons learned in transboundary data sharing

- Draft Outline prepared by the secretariat with input from lead Parties

- Draft Outline discussed at the Expert Meeting on Monitoring, Assessment and Data Exchange (13 and 14 April 2022)

- Draft Outline approved at the Joint Working Group on IWRM and Monitoring and Assessment (28-30 June 2022).

Proposed structure of the new publication

Key messages
1. Introduction
2. The monitoring and assessment context
3. Set-up of the data exchange
4. Types of data and information shared
5. Harmonization and quality assurance
6. Data management, processing, and sharing
7. Reporting and use of data
8. Impacts and benefits
9. Main difficulties and challenges

Case studies

- 48 Case Studies received
- 12 from RBOs
- 25 from the Ministries of Environment, Planning or Water Resources;
- 2 from civil society
- 8 from international organizations
- 1 expert

=> Case studies used to develop 1st Draft for consideration by Expert meeting

Tentative timeline

Activity	Responsible	Timeframe
Regional workshops to collect good practices & enhance participation/ownership: - Central Asia workshop (1-2 February 2023, Astana) - Arab region (tbc, May 2023, Beirut) - Latin America	Secretariat and lead Parties	February-October 2023
Expert meeting: feedback to the 1st draft and written inputs	Experts from RBOs, countries and lead Parties	18-19 April 2023 (followed by written inputs by 15 May 2023)
Development of the 2nd draft (based on comments from Expert meeting and written inputs received)	Secretariat, lead Parties, Expert Group	April-July 2023
2nd draft reviewed by the Working Group on Monitoring and Assessment (WGMA)	WGMA	17-18 October 2023
Comments and additional inputs	Countries and partners	
Integration of comments and development of publication	Secretariat and lead Parties	Meeting of the Parties in October 2024

This meeting

- First draft is a draft

- Your inputs:
  - Chapters
  - Lessons learned
  - Case studies

Chapter 1: Introduction

- Background of the publication
- Target audience
- How the publication was developed
- Brief overview of the principles of transboundary monitoring and assessment
- Key benefits of regular and planned monitoring
- Structure of the publication
- Title: data sharing / data exchange?

Chapter 2: Monitoring and assessment context

- Data and information sharing is key for effective transboundary water resource management

- Find common ground between institutions and countries

- Joint study trips, samplings, workshops, and discussions bring people closer together within the countries as well as internationally

Chapter 2: Monitoring and assessment context

- Lesson XX. Ensure clear mandates for data sharing at bilateral/basin level
  - Case study XX. Legal frameworks for data and information exchange in the Aral Sea basin
- Lesson XX. Involve decision-makers in identifying the information needs from the beginning to ensure that the process is integrated with policymaking processes
  - Case study XX. River Plata Basin – DSS to support decision-making
- Lesson XX. Financial arrangements can be a mixture of different sources
  - Case study XX. The Sava River Basin – investments from donors, maintenance from domestic sources
- Lesson XX. Create a specific working group responsible for monitoring as part of a joint commission's institutional framework
  - Case study XX. Senegalo-Mauritanian Aquifer Basin (SMAB) - Regional Working Group for Transboundary Cooperation
  - Case study XX. The Mozambique Zimbabwe Joint Water Commission

Chapter 2: Monitoring and assessment context

- Lesson XX. Use existing RBO and non-RBO institutions and mechanisms for transboundary cooperation to the extent possible
  - Case study XX. The Organization for the Development of the Gambia River (OMVG) - competences of the OMVG were extended to other watersheds
- Lesson XX. Need for a phased, step-by-step approach
  - Case study XX. Activities of the Kazakhstan-Uzbekistan Working Group on Environmental Protection and Water Quality in the Syr Darya River Basin

Chapter 2: Monitoring and assessment context

- Lesson XX. Ensure political support for the monitoring system
- Lesson XX. Demonstrate the benefits of basin-wide cooperation in monitoring
- Lesson XX. Give a mandate to river basin organizations to overlook transboundary monitoring
- Lesson XX. Ensure an integrated approach for the monitoring system
- Lesson XX. Facilitate trust building and collaborative learning
- Lesson XX. Apply transparency and openness throughout the process
- Lesson XX. Identify the needs for capacity development
- Lesson XX. Develop a capacity-development plan
- Lesson XX. Joint meetings
- Lesson XX. Formal and informal cooperation supported by institutions
- Lesson XX. Engage key parties including private party (hydropower operators)
- Lesson XX. More focus on groundwater
- Lesson XX. Pilot projects as useful instruments for a step-by-step-approach

Questions

- Are these lessons learned and case studies useful?
- Are there lessons that should be
  - Added?
  - Moved to another chapter?
  - Deleted?
- Are the case studies relevant for the respective lessons?
- Do you know of other case studies to support lessons learned?
- Who would be ready to prepare additional lessons and case studies?

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Chapter 3: Set-up of the data sharing

- The institution(s) responsible for data and information sharing need a clear mandate

- Adopt a step by step approach

- Financing mechanism – domestic and external budget

- Early warning

Chapter 3: Set-up of the data sharing

- Lesson XX. Ensure adequate financing for sharing data
  - Case study XX. OKACOM - Each Member State finances all data collections
- Lesson XX. In the absence of a formal agreement, informal cooperation can still take place
  - Case study XX. Transboundary aquifers along the Mexico-U.S. border – informal Binational Groundwater Task Force (BGTF)
- Lesson XX. Develop a transboundary early warning system
  - Case study XX. Georgia - exchange of critical situations no official agreement
- Lesson XX. Adopt a step-by-step approach to monitoring in the transboundary basin
  - Case study XX. The BIO-PLATEAUX project - phased approach towards cross-border Observatory by 2025

Chapter 3: Set-up of the data sharing

- Lesson XX. Ensure collection and sharing of the appropriate and necessary data, information and models for the entire basin and across the water cycle
  - Case study XX. Upper Indus Basin Network (UIBN) - six thematic working groups:
    - Group 1: Framework of data collection, quality, and standardization
    - Group 2: Climate change, air pollution variability and black carbon
    - Group 3: Cryosphere monitoring and modelling
    - Group 4: Surface and groundwater hydrology, water availability and demand
    - Group 5: Understanding and managing hazards and risks
    - Group 6: Managing gendered socioeconomic impacts through adaptation measures
- Lesson XX. Raise awareness of the importance of acting at a basin-wide scale
- Lesson XX. Agreement should not be limiting
- Lesson XX. Inter-agency cooperation programs can support cooperation in a more flexible way
  - Case study XX. Cooperation through inter-agency programs between hydromets in Central Asia - bilateral cooperation programs between hydrometeorological services

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Chapter 4: Types of data and information shared

- What data to be shared?
- International standards in data-sharing
- What types of data may be more difficult to exchange

Chapter 4: Types of data and information shared

- Lesson XX. Exchange data and information in critical situations, e.g. floods, droughts, or industrial and other accidents
  - Case study XX. Emergency pollution of transboundary waters shared by Moldova and Ukraine
- Lesson XX. Establish a joint working group to discuss about the data to collect and share
  - Case study XX. International Meuse Commission - Working Group Hydrology
- Lesson XX. Share data and information beyond hydrological and water quality data
  - Case study XX. Sharing of information between Chile and Argentina - Exchange of legal, institutional, technical-scientific information, documentation and research
  - Case study XX. Buzi, Pungwe and Save Basins: The Bupusa Data Sharing Protocol - Data sharing includes 1. Hydrology; 2) Hydrogeology; 3) Climatology; 4) Meteorology; 5) Water quality; 6) Socio-economy; 7) Environment; and 8) Planning Instruments.
  - Case study XX. Transboundary Groundwater Body Karavanke - information sharing includes: a) quantity and quality, monitoring locations, results of relevant research and development, measures taken and planned, national regulations and permits

Chapter 4: Types of data and information shared

- Lesson XX. Basin commissions are useful vehicles to progressively enlarge the types of data and information exchanged
  - Case study XX. Working Group on Environmental Protection on the Chu and Talas River Basins - cooperation has gradually progressed over the years
- Lesson XX. Develop procedures how to exchange data on planned measures
- Lesson XX. Use satellite data
- Lesson XX. Agree on monitoring network that provides information for all riparians
- Lesson XX. Develop data production in reinforcing the traditional monitoring at transboundary level and in promoting the use of innovative monitoring technologies (Earth Observation systems, Crowd sourcing, etc.)

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Chapter 5: Harmonization and quality assurance

- How to ensure that data and information is usable for all riparians?

- Comparability of the data

- Quality assurance

- Quality control (e.g., data validation)

Chapter 5: Harmonization and quality assurance

- Lesson XX. Harmonize and integrate the use of models with measurements. A combination of measurement data and models can help to provide relevant information
  - Case study XX. Okavango River Basin - The OKACOM Decision Support System ensures that data are stored in a consistent format from all Member States
  - Case study XX. Water balance data reconciliation on Lake Fertő - The Hungarian and Austrian water management institutes jointly process and exchange the time series of annual hydrological data to calculate the water balance
- Lesson XX. Establish a joint working group to discuss about the harmonization of the data.
- Lesson XX. Joint sampling for harmonization
- Lesson XX. Need to have common procedure and have comparable data and information at different levels
- Lesson XX. Regional coordination and technical cooperation is needed to ensure that data and information be generated and available in compatible and harmonized format in accordance with agreed parameters and methodologies.

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Chapter 6: Data management, processing, and exchange

- Data storage – e.g. joint database
- Data analysis and interpretation – classification, comparability of results
- Use of models

Chapter 6: Data management, processing, and exchange

- Lesson XX. Technical cooperation can be a springboard for multi-disciplinary cooperation
  - Case study XX. Exchange of Data and Information in the Study of the Pretashkent Transboundary Aquifer - The Governance of Groundwater Resources in Transboundary Aquifers (GGRETA) project has initiated stronger cooperation
- Lesson XX. Build a common repository of the information to be communicated
  - Case study XX. Amazon River Basin - data is stored in the joint database of the Amazon Regional Observatory of the SP-OTCA
  - Case study XX. The Drin River Basin - Drin Information Management System
- Lesson XX. Use models for forecasting
- Lesson XX. Develop the capacities to share comparable data and to interconnect the partner information systems, using common language and common procedures.

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Chapter 7: Reporting and use of data

- Purpose of reporting

- Joint reporting – pros and cons

- (International) Reporting obligations

- Is the data publicly available?

- How do the data reach decision-makers?

Chapter 7: Reporting and use of data

- Lesson XX. Disseminate information to all relevant sectors and ministries
  - Case study XX. Cooperation on the Jordan River basin - Reports are submitted directly to the minister and the secretary general.

- Lesson XX. Ensure the exchange of knowledge between technical specialists and decision-makers
  - Case study XX. Aral Sea Basin – The publications of the Scientific-Information Center of the Interstate Commission for Water Coordination in Central Asia (SIC-ICWC) are regularly shared with the ICWC members, ministries and agencies.

- Lesson XX. The information as collected should serve the purpose of better management through cooperation
  - Case study XX. Transboundary deep groundwater body in the Lower-Bavarian-/Upper-Austrian Molasse-Basin- A bilateral Expert Group "Thermal Water" supports the transboundary management of the groundwater body

Chapter 7: Reporting and use of data

- Lesson XX. Facilitate the sharing of information between stakeholders.

- Lesson XX. Clearly define the audiences for dissemination of the information.

- Lesson XX. Launch an initial communication plan at the beginning of the project, and update, adjust and revise it progressively.

- Lesson XX. Tailor messages to your audience, based on its characteristics and needs.

- Lesson XX. Select appropriate instruments to communicate the information.

- Lesson XX. Establish mechanisms for regularly reviewing the monitoring system in order to ensure relevant information.

- Lesson XX. Let the information tell a story.

- Lesson XX. Basis for resolution of disputes.

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Chapter 8: Impacts and benefits

- Impacts or benefits from data and information sharing:
  - Early warning
  - Water quality
  - Awareness
  - Policy and management
  - Coordination

Chapter 8: Impacts and benefits

- Lesson XX. Added value from developing transboundary water cooperation
  - Case study XX. Developing Transboundary Water Quality Monitoring of the Teno River between Finland and Norway – joint program to preserve the unique natural conditions of the transboundary water bodies and their surroundings

Questions

- What should be the character of this chapter?

- Do you know of other case studies to support lessons learned?

- Who would be ready to prepare additional lessons and case studies?

Chapter 9: Main difficulties and challenges

- Challenges (see document)

- Opportunities (see document)

- Lesson XX:
  - Case study XX. Main challenges for strengthening data exchange at regional level in Central Asia

- Conclusions that can be drawn

Questions

- What should be the character of this chapter?

- Do you know of other case studies to support lessons learned?

- Who would be ready to prepare additional lessons and case studies?

Key messages

- What should be the key messages?

- Summary of lessons learned

or

- Selection of lessons learned

WATER CONVENTION

Thank you

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For more information: https://unece.org/environment-policy/water/monitoring-assessment-and-information-sharing-transboundary-basins

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