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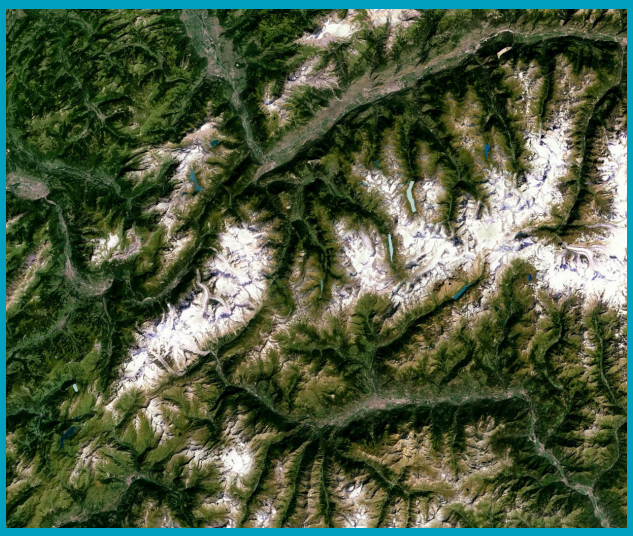
PROGRESS ON TRANSBOUNDARY WATER COOPERATION UNDER THE WATER CONVENTION

Report on implementation of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes



UNITED NATIONS

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PROGRESS ON TRANSBOUNDARY WATER COOPERATION UNDER THE WATER CONVENTION

REPORT ON IMPLEMENTATION OF THE CONVENTION ON THE PROTECTION AND USE OF TRANSBOUNDARY WATERCOURSES AND INTERNATIONAL LAKES

United Nations
New York and Geneva, 2018

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Top left: Municipality of Maasgouw on the Meuse River, Netherlands
Top right: Rhone Valley and Alps mountain range, France, Italy, Switzerland
Bottom: Syr Darya District, Kazakhstan

Mooserboden Dam, Kaprun, Austria

Pivska lake within the Drina River Basin shared by Albania, Bosnia and Herzegovina, former Yugoslav Republic of Macedonia and Serbia

FOREWORD

With 38 out of 40 Parties submitting national reports, the pilot reporting exercise represents a major milestone for the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention). This excellent response is a clear indication that the Parties are committed to implementing the Water Convention and realize the economic, social, environmental and political benefits of transboundary water cooperation.

An additional feature of reporting under the Water Convention is that it takes place alongside reporting on the Sustainable Development Goals, in particular indicator 6.5.2 on transboundary water cooperation for which the United Nations Economic Commission for Europe (ECE) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) act as co-custodians. By reporting under the Convention, Parties get a detailed insight on the status of their cooperation and what needs to be done to achieve target 6.5.

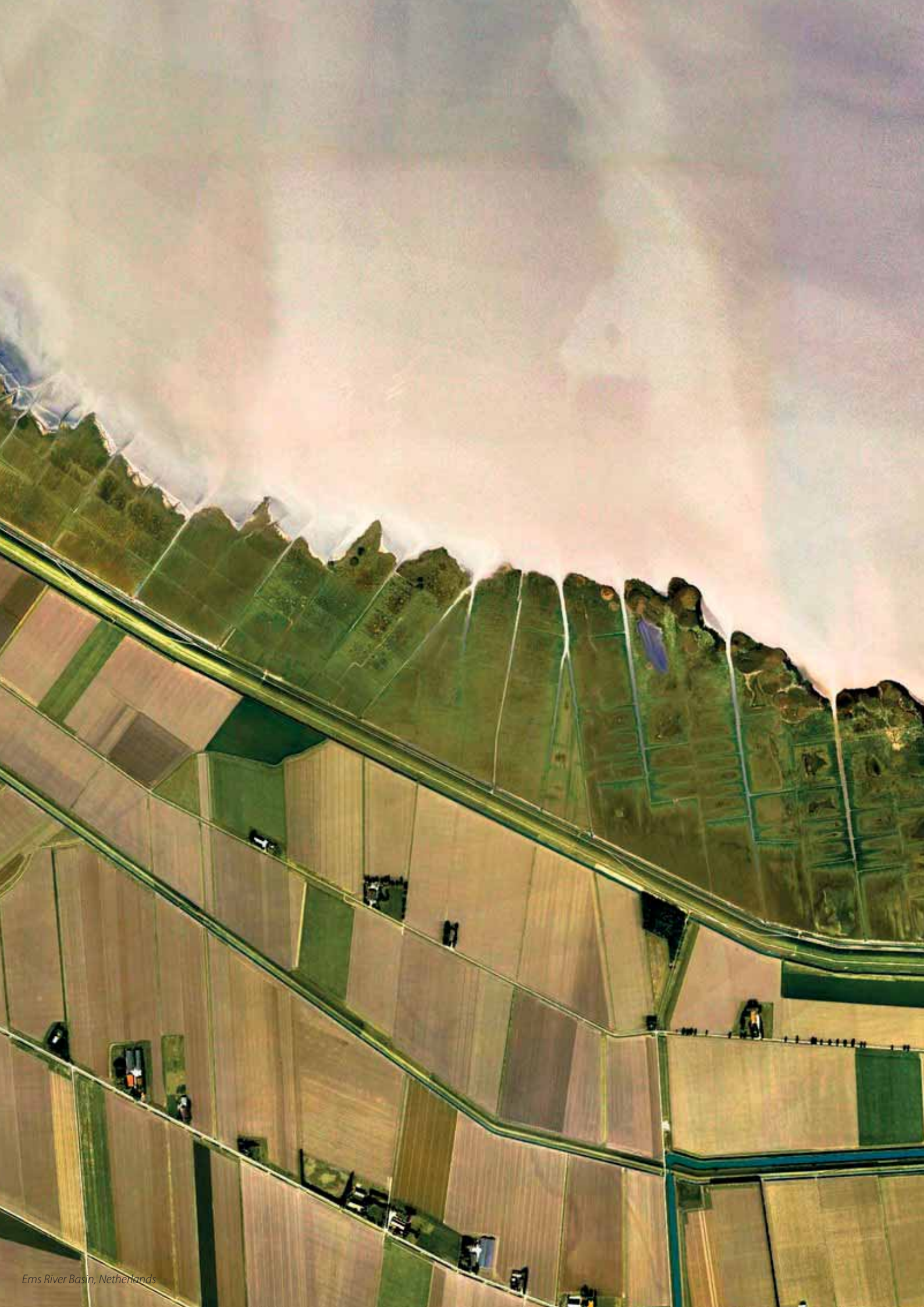
The results of the pilot reporting exercise, as outlined in this publication, show that the Parties have made significant progress in the implementation of the Water Convention: most basins are covered by agreements for transboundary water cooperation, and almost all these agreements have joint bodies in place to support their implementation. This has brought many concrete results, including enhanced human and ecosystem health, improved water quality, mitigation of the impacts of floods and droughts, as well as better joint planning in many areas - from hydropower operation to river basin management. These results further underline the potential benefits of the implementation of the Water Convention at the global level.

Through the reporting exercise, Parties have also demonstrated a willingness to highlight the difficulties they face in implementing certain provisions of the Convention, such as activities related to joint monitoring and assessment, joint water quality standards, extreme events and public participation. Reporting offers Parties the means to address these difficulties in a more focused and systematic way.

The tremendous effort made by the Parties to complete their national reports provides a solid foundation for future reporting exercises. Such an effort can best be rewarded by making the most of the results of this first exercise. I therefore encourage all Parties to use these national reports, as well as this synthesis publication, to support the implementation of the Water Convention, strengthen transboundary water cooperation and contribute to the Sustainable Development Goals.

Olga Algayerova

Executive Secretary of the United Nations
Economic Commission for Europe
Under-Secretary-General of the United Nations



Ems River Basin, Netherlands

PREFACE

Decision VII/2 on Reporting under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) requested the Secretariat to prepare a synthesis report for the Meeting of the Parties summarizing the progress made in the implementation of the Convention, and identifying significant trends, challenges and solutions.

This synthesis report analyses the responses provided by 38 of the 40 riparian Parties to the Water Convention that completed the reporting template.[1] In so doing, the report closely mirrors the structure of the reporting template. The introduction of the report provides the context to the reporting process and its results, after which the report reviews the responses to the main parts of the reporting template, namely: on transboundary water management at the national level; transboundary agreements and arrangements for transboundary waters; joint bodies for transboundary waters; and activities related to the implementation of transboundary water cooperation. In addition, a summary of responses to the questions related to the general challenges and achievements in implementing the Water Convention and transboundary water cooperation is provided. The analysis presented in this synthesis report is therefore primarily based on the answers provided by the Parties in the reporting template, and the use of other sources is both limited and secondary to those responses.

This synthesis report was produced by the Secretariat following the deadline for the submission of national reports in May 2017. Many of the reports were submitted after the deadline and a full analysis could not therefore be conducted until early 2018. The final text was completed in August 2018.

The following Secretariat staff, consultants and interns contributed to the synthesis report and the analysis of the data: Alistair Rieu-Clarke (lead author), Shira Babow, Eva Barrenberg, Francesca Bernardini, Chantal Demilecamps, Yelysaveta Demydenko, Tatiana Guimaraes Ferreira, Sonja Koeppel, Annukka Lipponen, and Sarah Tiefenauer-Linardon. The Secretariat is also grateful to Melissa McCracken (Oregon State University) and Susanne Schmeier (IHE-Delft) for their support in the design of the database that was used to analyse the reports, and to Cathy Lee for her editorial assistance.

The Water Convention Secretariat is grateful to the riparian Parties for their considerable efforts in the completion of their national reports for this pilot reporting exercise. The Secretariat also expresses its utmost gratitude to Austria, Germany, Hungary, Norway and Switzerland for the financial support to the pilot reporting exercise.

[1] With Chad's accession on 22 February 2018, there are now 41 riparian Parties to the Water Convention. However, when Parties to the Water Convention were invited to report under the Water Convention (January 2017), Chad was not yet a Party.

HIGHLIGHTS

What does the pilot reporting exercise tell us about the implementation of the Water Convention?

The pilot reporting exercise shows that **there is a high level of implementation of the Water Convention**, which reflects a concerted effort by the Parties to protect and jointly manage shared resources over the course of more than 20 years.

More specific insights from the pilot reporting exercise reveal that:

- **Transboundary water management is well reflected at the national level** through the adoption of laws and policies related to the prevention, control and reduction of transboundary impacts, the regulation and monitoring of both point and diffuse pollution, and the adoption of environmental impact assessment laws and procedures.
- **Agreements and arrangements are in force in most transboundary waters shared between riparian Parties.** However, for some transboundary waters there is a need to strengthen cooperative arrangements, or to adopt new ones where they are lacking, to ensure stronger alignment with the Water Convention.
    - **At least 15 transboundary river and lake basins do not have an agreement or arrangement in place covering the entire basin, and at least 29 do not have agreements or arrangements in place covering transboundary aquifers.**
    - **The main topics of cooperation provided for in the Water Convention are well covered by agreements and arrangements,** although some aspects of the Convention, such as the elaboration of joint water quality objectives, mutual assistance and the maintenance of joint pollution inventories, are less well represented.
- **Where agreements and arrangements are in place nearly all of them provide for the establishment of a joint body, with the most common type consisting of a basin commission or similar.** These joint bodies tend to cover the majority of the key tasks and activities mentioned in

Douro River shared by Portugal and Spain

the Water Convention, although tasks and activities related to maintaining joint pollution inventories, setting emission limits, climate change adaptation and public participation are less well represented in these bodies.

- **There is a widespread and concerted effort to implement agreements and arrangements for transboundary waters.**
  - **Most transboundary waters covered by agreements and arrangements have adopted joint or coordinated water management plans, objectives, strategies or similar instruments** with a view to advancing transboundary water cooperation.
  - **Measures to protect the ecosystems of transboundary waters are commonly incorporated** into national laws and policies and are often found in agreements and arrangements for transboundary waters.
  - **Data and information exchange takes place in nearly all the reported transboundary waters,** although there are at least seven river and lake basins where it does not appear to take place at the basin level.
  - **There has been a concerted effort to adopt joint monitoring and assessment of transboundary waters, although** joint monitoring and assessment is reported to not take place in at least 32 river and lake basins.
  - **Several provisions of the Water Convention, including the adoption of joint water quality standards, provisions related to the prevention of accidental pollution and extreme events, and public participation in transboundary waters management do not appear to be widely implemented at the basin level.**
- **The pilot reporting exercise process, template and methodology have proven to be effective in capturing data and information on the implementation of the Water Convention across a diverse range of settings, illustrating how reporting can help strengthen cooperation and guide the work under the Convention.** However, the pilot exercise also highlighted areas where reporting could be enhanced, such as clarifying certain questions, offering additional guidance on the completion of the reporting template, and improving the consistency of responses among riparian Parties sharing the same transboundary waters.

EXPLANATORY NOTE ON THE PRESENTATION OF DATA FROM THE NATIONAL REPORTS

The pilot reporting exercise asked countries to complete national reports on the status of transboundary cooperation in relation to shared rivers, lakes and aquifers. While providing a national perspective is critical to the effectiveness of the reporting mechanism under the Water Convention, it poses certain challenges in the presentation of data.

A major challenge in the presentation of data, particularly in chapters 3 to 5, which focus on transboundary basins, concerns instances where two or more Parties provide different answers to the same question. To avoid privileging one answer over another, this synthesis report presents all responses that relate to a particular transboundary basin, river, lake or aquifer. This analysis is provided in the sections entitled 'What have the countries reported?'.

However, a drawback of this approach is that there may be multiple answers concerning the same transboundary waters. For example, 14 countries responded to the same questions concerning the status of transboundary water cooperation in the Danube River Basin. This duplication means that the presentation of data is artificially weighted in favour of the transboundary waters that are shared by the greatest number of countries. In addition, presenting the data in such a way means that any discrepancies in answers to the same question are not addressed. As discussed in chapter 1, future reporting exercises can be enhanced if Parties sharing the same transboundary waters harmonize their responses.

To address the challenge of duplication and the different responses, chapters 3 to 5 provide additional analysis that takes the transboundary basin as the primary unit of analysis. This analysis is based on 72 transboundary basins that were explicitly reported by at least one Party, and a further seven sub-basins where only a sub-basin was reported rather than the entire basin.

However, it is only possible to provide such an analysis when reporting Parties have given consistent responses (yes or no) to a particular question at the basin level. If Parties provide inconsistent responses, the basin is omitted from the analysis. For chapter 3, this approach concentrates on an analysis of consistent answers concerning agreements and arrangements that are in force at the basin level. Where consistent answers are given for a sub-basin, that level of analysis can also be considered. A similar approach is adopted in chapter 4 in relation to the joint bodies that are reported to be in place at the basin level. Finally, chapter 5 considers the consistent responses given by riparian Parties related to the activities in support of implementation of the Convention at the basin level.

CONTENTS

LIST OF FIGURES

LIST OF BOXES

Tara river shared by Montenegro and Bosnia and Herzegovina

INTRODUCTION

The inclusion of a regular reporting mechanism under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) marks an important milestone in the Convention's evolution.[2] For the first time, Parties have a transparent mechanism to systematically review implementation of the Convention on a regular basis. Such a review constitutes an invaluable means by which Parties can assess the implementation of their national and international laws and policies related to transboundary water management, and reflect upon any gaps, or highlight good practices and lessons learned. In so doing, reporting can inform the development of future programmes of work under the Convention, assist in the better mobilization of resources, keep the public informed of measures taken to protect and manage shared resources, and assist the work of the various bodies established in support of the Convention, including the Implementation Committee. In addition, riparian Parties can––possibly through a joint body or bilaterally––utilize reporting as a means to review and strengthen the implementation of existing arrangements, improve the harmonization of national laws and policies, or identify areas where new arrangements might be needed.

Countries that are either in the process of accession or are considering accession to the Water Convention might also benefit from the reporting exercise as it provides an insight into what implementation of the Water Convention entails. By completing the reporting template, these countries can assess the current level of their transboundary water cooperation and its alignment with the Water Convention.[3] Additionally, by reviewing the reports submitted by others, as well as this synthesis report, countries can gain a useful insight into how the provisions of the Convention are applied by the Parties. A further benefit of the reporting under the Water Convention is that it serves the purpose of reporting under Sustainable Development Goal (SDG) indicator 6.5.2[4]. Thus, by submitting one report, Parties can contribute to both exercises.

By offering a synthesis of all the national reports submitted during the pilot reporting exercise, this report can assist Parties in realizing some of the benefits of reporting. The report closely follows the structure of the reporting template in considering transboundary water management at the national level (chapter 2), transboundary agreements and arrangements (chapter 3), joint bodies for transboundary waters (chapter 4), activities related to the implementation of agreements and arrangements (chapter 5), and the main achievements and challenges faced by countries in implementing the Water Convention and transboundary water cooperation (chapter 6). Prior to presenting the summary analysis of the national reports, it is important to consider the process of reporting, as well as its limitations. Chapter 1 is dedicated to this endeavour.

Chapters 3, 4 and 5 adopt a similar structure. Firstly, a section outlines the relevant provisions of the Water Convention. Secondly, a section highlights the relevant questions of the template and the responses provided by the Parties. This section includes the total number of responses for the particular questions, meaning that there might be an overlap in responses where two or more Parties have reported on the same agreement or arrangement. The final section seeks to address this overlap by analysing the reported responses at a basin level and ascertaining any gaps in implementation.[5] For ease of reference, the figures in chapters three to five are colour coded as follows: data based on all responses to a particular question (grey background); data based on responses for all agreements or arrangement in force (green background); data based on responses for all joint bodies in place (blue); and data based on consolidated analysis at the basin level (purple)[6]. These chapters also include text boxes entitled 'insights from practice'. These boxes highlight some of the examples of practices mentioned by the Parties when completing their national reports. More detailed information is provided in the completed templates themselves. The intention of the boxes is therefore simply to highlight some of these examples rather than to comprehensively describe the relevant practice.

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2 See Decision VII/2 Reporting under the Convention, in ECE, Report of the Meeting of the Parties on its seventh session, 7 July 2016 (UN Doc. ECE/MP.WAT/49.Add.2).

3 Over 60 countries completed a similar reporting template when reporting under SDG indicator 6.5.2 - more information available from https://www.unece.org/environmental-policy/conventions/water/areas-of-work-of-the-convention/reporting-under-the-water-convention-and-sustainable-development-goal-652.html (accessed 29 August 2018).

4 Indicator 6.5.2 tracks the proportion of transboundary basin area within a country covered by an operational arrangement for water cooperation, see *ibid*.

5 For further information, see explanatory note in this report on the presentation of data from the national reports (p. x).

6 *Ibid.*

Chapter 1

Photo credit Réka Gaul
Technical meeting on the template for reporting on SDG indicator 6.5.2 and under the Water Convention, Budapest, 16–17 January 2018

Overview of the pilot reporting process

In accordance with Decision VII/2 adopted in 2015 at the 7th session of the Meeting of the Parties to the Water Convention, a pilot reporting exercise commenced in 2017. The introduction of reporting under the Water Convention coincided with the adoption of the Sustainable Development Goals (SDGs) and their targets in 2015, followed by the adoption of indicator 6.5.2 to measure progress on transboundary water cooperation as part of the global indicator framework for the SDGs and targets of the 2030 Agenda for Sustainable Development. The United Nations Economic Commission for Europe (ECE) and the United Nations Education, Scientific and Cultural Organizations (UNESCO) have been designated as 'custodian agencies' for the indicator. In order to maximize synergies, the pilot reporting under the Convention and the first reporting on indicator 6.5.2 were combined. Parties were initially invited to report, both under the Water Convention and SDG indicator 6.5.2, in January 2017 and given a deadline of 15 May 2017 by which to submit their reports. Reminders were sent before and after the deadline.

As of 15 May 2017, 15 reports had been submitted by Parties, and by 28 February 2018 a further 23 reports had been submitted[7]. The response rate of 95 per cent for the pilot exercise was therefore very high, with 38 out of 40 Parties submitting reports, thereby demonstrating a strong support for the reporting mechanism among Parties. However, the fact that a significant number of reports were submitted after the prescribed deadline posed a challenge as a complete analysis of the reports could not commence until the final reports had been submitted, delaying data entry and analysis.

Figure 1: Map of the Parties reporting under the Water Convention

[7] *The complete list of Parties that submitted reports and the date of their submission is provided in Annex I.*

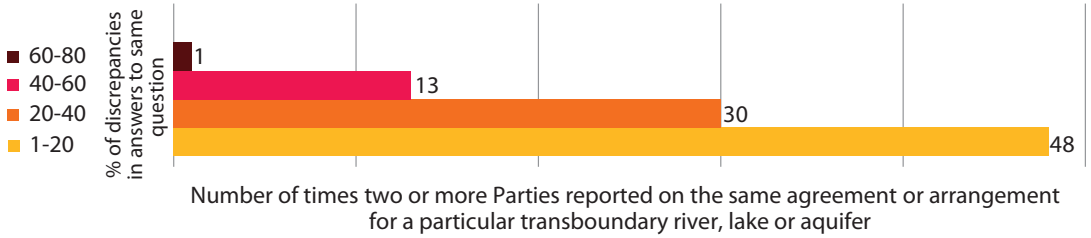
Overall, Parties made considerable efforts in completing their reports, which were generally extensive and provided a sufficient level of detail to monitor the implementation of the Water Convention.[8] The analysis in the subsequent chapters also shows how many reports were transparent in highlighting the difficulties and gaps faced by countries in the implementation of the Water Convention.

In order to analyse the responses in a systematic manner the Secretariat developed a database containing all the responses submitted by the reporting Parties. However, the development of the database proved challenging given the complexity of the reporting exercise, both in terms of the amount of data and information requested through the reporting template, and the need to analyse the data across multiple scales (national, sub-basin, basin and multiple basins). As the reporting exercise evolves, the complexity of the task will increase, particularly given the need to compare data across reporting cycles. Technical support will therefore be required to ensure that the database in place is both accessible and fit for purpose.

Annex II of this report compares the basins identified through the *Second Assessment of Transboundary Rivers, Lakes and Groundwaters* and those listed in the national reports.[9] A total of 73 basins are listed in the national reports, as well as 79 sub-basins. In seven instances, only a sub-basin was reported rather than the basin as a whole. For example, Russia reported the Kigach channel of the Volga Basin, shared with Kazakhstan, rather than reporting the Volga Basin as a whole. An additional seven basins were not reported explicitly but they fall within the scope of agreements or arrangements that cover all transboundary waters between two or more Parties.

Twenty-nine of the transboundary river and lake basins and sub-basins included in the *Second Assessment* are not reported in the pilot reporting exercise. Ten of these basins were not included as they are not shared by Parties to the Water Convention even though they are located in the ECE region, e.g. the transboundary waters between Ireland and the United Kingdom of Great Britain and Northern Ireland. Nineteen transboundary river and lake basins and sub-basins shared by at least one Party to the Water Convention were therefore not reported.[10] Of these 19, while countries were encouraged to report on *all* their transboundary waters, five transboundary waters may not have been reported because less than 10 per cent of the basin or sub-basin is located in the territory of one of the Parties to the Water Convention. For example, 0.01 per cent of the Tumen/Tumannaya River is in the Russian Federation, while the rest of the basin is in China and the Democratic People's Republic of Korea [11] Similarly, 99 per cent of the Ebro is in Spain, with only 1 per cent in France, and a negligible share in Andorra[12]. In the other 14 instances, which relate to ten basins and four of their sub-basins, no reasons were provided for why they were not reported.

Figure 2: Percentage of differing answers to the same question for the same agreement or arrangement



8 See further general observations in ECE, Reporting under the Convention and on Sustainable Development Goal indicator 6.5.2, 28 June 2017 (UN Doc. ECE/MP.WAT/WG.1/2017/3).

9 ECE, Second Assessment of Transboundary Rivers, Lakes and Groundwaters, New York and Geneva, 2011 (UN Doc. ECE/MP.WAT/33).

10 For further details see Annex II.

11 ECE, Second Assessment of Transboundary Rivers, Lakes and Groundwaters, New York and Geneva, 2011 (UN Doc. ECE/MP.WAT/33), p. 106.

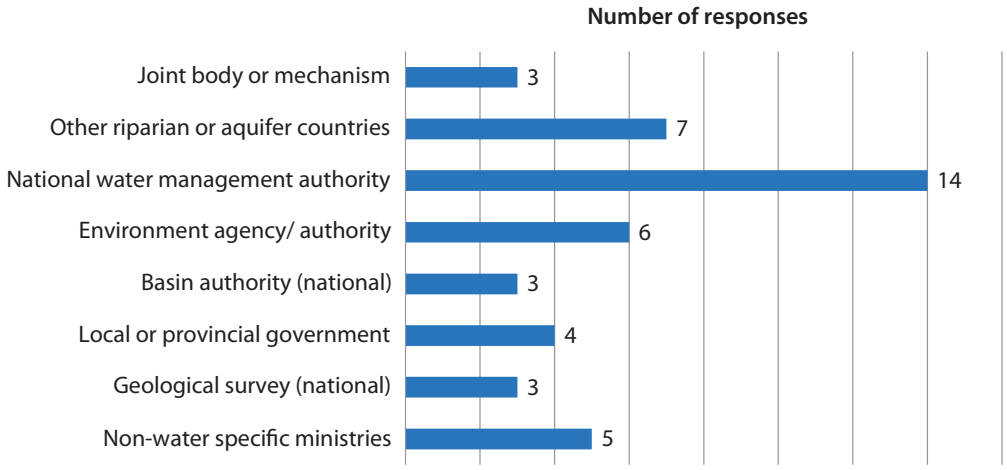
12 *Ibid*, p. 254.

A major challenge of the pilot reporting exercise relates to the situation where two or more riparian Parties report on the same agreement or arrangement for the same transboundary river, lake or aquifer but provide different answers. There were a total of 92 instances where two or more Parties reported on the same agreement or arrangement for the same transboundary river, lake or aquifer, and not on a single occasion did the answers match perfectly. As illustrated in figure 2, in 48 out of these 92 instances, the percentage of different responses to the yes/no questions between two or more Parties was between one and 20 per cent.

In addition to the 92 instances where two or more Parties reported on the same agreement or arrangement for the same transboundary waters, there were also 37 transboundary waters that were only reported by one Party, even though they are shared by two or more of the reporting Parties.[13]

In some instances, and particularly in transboundary basins where an existing joint body is well established, Parties sought to coordinate their responses. Parties also commented that the process of reporting offered the opportunity to consult a wide range of stakeholders on transboundary water issues, and to take stock of the current status of transboundary water cooperation within the country. An overview of responses related to the types of institutions consulted during the pilot reporting exercise is provided in figure 3.

Figure 3: Type of institutions consulted to prepare the report (section IV, question 4)



Given the high level of discrepancies between responses during the pilot exercise, it would be beneficial for Parties to enter into a dialogue with their riparian neighbours with a view to developing a shared understanding concerning both the content and the implementation of existing cooperative arrangements, and where possible, to reflect that shared understanding in a coordinated response to the reporting template. In addition, a shared understanding on the interpretation and implementation of the Water Convention within a particular transboundary context can offer the means by which riparian Parties develop a joint approach to the future implementation of the Convention.

An important limitation in the reporting process was the inability to verify the data provided by the Parties in their reports. While Parties were encouraged to submit maps of the reported basins, together with copies of any agreements or arrangements currently in place, this was not universally practised. However, where Parties did submit maps and copies of agreements, they proved to be extremely useful in supplementing the information already provided in the reports. Reporting might therefore be enhanced if the list of maps and agreements was comprehensive and provisions were made to ensure coherence between the information provided in the maps and agreements, and the information contained in the templates.

A further challenge that was highlighted in the pilot reporting exercise relates to the reporting template itself. In July and October 2017, countries that had reported under the Convention and/or SDG indicator 6.5.2 were asked to provide feedback on the template and the reporting process. Comments were also

[13] See Annex II.

received from countries during the 12th meeting of the Water Convention Working Group on Integrated Water Resources Management (Geneva, 5–6 July 2017), from the Implementation Committee under the Water Convention and during the Technical meeting on the template for reporting on SDG indicator 6.5.2 and under the Water Convention, which was held in Budapest on 16–17 January 2018. Areas where the reporting template could be improved were highlighted through this review process, which included ensuring greater consistency with terminology and providing fewer open questions while allowing for more 'tick box' responses. It was also generally recognized that a guide to completing the reporting template would be useful, especially in clarifying key terminology and illustrating good practices in the completion of the template. These proposals for improving the reporting template and process have been brought forward in the 'Draft decision on reporting and revised template for reporting under the Convention', which will be presented at the 8th session of the Meeting of the Parties to the Water Convention in Astana on 10–12 October 2018.[14]

Figure 4: Transboundary surface waters reported in Western and Central Europe

[14] More information available from https://www.unece.org/index.php?id=48127 (accessed 29 August 2018).

The insights and lessons learned from the first reporting exercise, as well as the proposed revisions to the template, suggest that both the quality and consistency of reports could be improved upon in subsequent reporting cycles. Most countries will be able to use their initial reports as a basis on which to develop subsequent reports. In future reporting cycles, the time and resources required to submit reports should therefore be less than for the pilot exercise. More effort could therefore be dedicated to enhancing and updating existing data and information, and coordinating responses with other riparian Parties, if required.

Figure 5: Transboundary surface waters reported in Southeastern Europe

* UN administered territory under UNSC 1244

0 100 200 300 400 km

Modified version of map produced by ZOÏ Environment Network, July 2011

Legend

Not reported transboundary waters/basins

Reported transboundary waters/basins

Transboundary waters/basins or parts thereof within the territory of non-parties

Figure 6: Transboundary surface waters reported in Eastern and Northern Europe

Figure 7: Transboundary surface waters reported in the Caucasus

Figure 8: Transboundary surface waters reported in Central Asia

Modified version of map produced by ZOÏ Environment Network, July 2011

Isonzo/Soča River shared by Italy and Slovenia

Chapter 2

Lake Balkhash recipient of Ili River Basin shared by China and Kazakhstan

Transboundary water management at the national level

Key messages

- **Laws and policies related to the prevention, control and reduction of transboundary impact can be found in the domestic systems of most of the reporting Parties.**
- **There is a widespread practice of adopting systems at that national level for the licensing, control and monitoring of both point and diffuse pollution.**
- **Most Parties to the Water Convention are also Party to the Convention on Environmental Impact Assessment in a Transboundary Context, and nearly all reporting Parties confirm that national environmental impact assessment laws and procedures are in place.**

The importance of national level water governance is well recognized in the Water Convention, and in particular through the 'appropriate measures' to prevent, control and reduce any transboundary impact as envisaged in Articles 2 and 3 of the Convention. These measures are legal, administrative, economic, financial and technical in nature and cover a range of topics (Art. 3).

Section I of the reporting template focuses on transboundary water management at the national level. Firstly, Parties are asked to provide an overview of key laws and policies related to transboundary water management. Secondly, they are asked for information concerning national systems for the licensing, control and monitoring of pollution (point and non-point source). Thirdly, they are asked about the laws and procedures in place related to Environmental Impact Assessment (EIA). A final question asked countries whether they have adopted transboundary water agreements or arrangements at the bilateral, multilateral and/or basin level, and to list them if applicable. The summary of the responses to section I of the template are provided in the following sections. The responses related to agreements and arrangements will be considered in chapter three.

2.1 Key laws and policies related to transboundary water management

What does the Convention say?

Article 3(1) of the Water Convention provides that measures of a legal nature should be in place to prevent, control and reduce transboundary impact. Additionally, Article 2(5) of the Water Convention provides that the Parties shall be guided by the precautionary principle, the polluter-pays principle and the principle of inter-generational equity.

What have countries reported?

In terms of laws and policies, all reporting Parties stated that their country's national legislation refers to measures to prevent, control and reduce transboundary impact (section I, question 1(a) of the template). It was noted that 36 out of 38 Parties reported that their national policies, action plans and strategies

referred to measures to prevent, control and reduce any transboundary impact (section I, question 1(b)). Most countries reported that their national water law or environmental law is the primary body of legislation referring to the prevention, control and reduction of transboundary impact. Similarly, all Parties confirmed that their country's legislation provided for the polluter-pays principle and the sustainable development principle (section I, question 1(c)), and nearly all Parties confirmed that their country's legislation provided for the precautionary principle.

What can we learn from the responses?

The responses to section I, questions 1(a), (b) and (c) suggest an alignment with the requirements of the Convention that relate to the prevention, control and reduction of transboundary impact, and national laws and policies.

However, the responses simply provide a broad overview of the relevant legislation. The quality and extent to which the prevention, control and reduction of any transboundary impact is covered by national law and policy, and the effectiveness of their implementation is not captured in the responses.

2.2 National systems for licensing, controlling and monitoring pollution

What does the Convention say?

Article 3(1) of the Water Convention sets out a series of measures that Parties shall put in place to prevent, control and reduce transboundary impact, including:

- The prevention, control and reduction of pollution at source through the application, *inter alia*, of low and non-waste technology.
- The licensing, monitoring and control of wastewater discharges by competent national authorities.
- The inclusion of wastewater discharge limits in permits based on the best available technology for discharges of hazardous substances.
- When the quality of the receiving water or the ecosystem requires, the adoption of stricter requirements, even leading to prohibition in individual cases.
- The adoption of at least biological treatment or equivalent processes to municipal wastewater, where necessary in a step-by-step approach.
- The reduction of nutrient inputs from industrial and municipal sources through measures such as the application of the best availability technology.
- The reduction of nutrients and hazardous substances from diffuse sources, especially from agricultural practices, through use of best environmental practices and other appropriate measures.
- The adoption of a system of environmental impact assessment.
- The promotion of sustainable water resources management, including an ecosystem approach.
- The development of contingency planning.
- The adoption of additional specific measures to prevent the pollution of groundwaters.
- Minimizing the risk of accidental pollution.

What have countries reported?

All 38 reporting Parties confirmed that they have licensing or permitting systems in place for wastewater discharge (section I, question 1(d)), and it was evident from the responses that there is a trend to ensure that *all* sectors are regulated by such systems. It was also evident that most countries (37 out of 38) set emission limits for their licensing systems based on best available technology (section I, question 1(d)), and all reporting Parties confirmed that any authorized discharges are monitored and controlled (section I, question 1(e)).

Figure 9 provides an overview of how authorized discharges are licensed, monitored and controlled. The figure suggests that all reporting countries use permits. The majority of countries monitor discharges, as well as their physical, chemical and ecological impacts on water, and controlling discharges by way of an inspectorate is also commonplace. Another means of monitoring and control that was highlighted in some of the responses was the self-monitoring of wastewater discharges by companies.

Figure 9: Overview of how authorized discharges are monitored and controlled (Art. 3), section I, question 1(e)

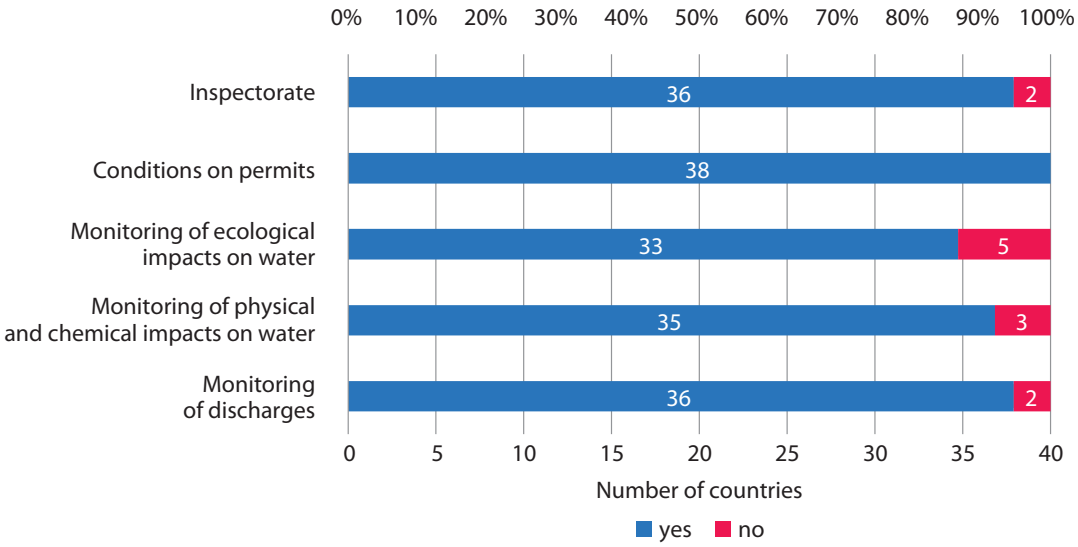
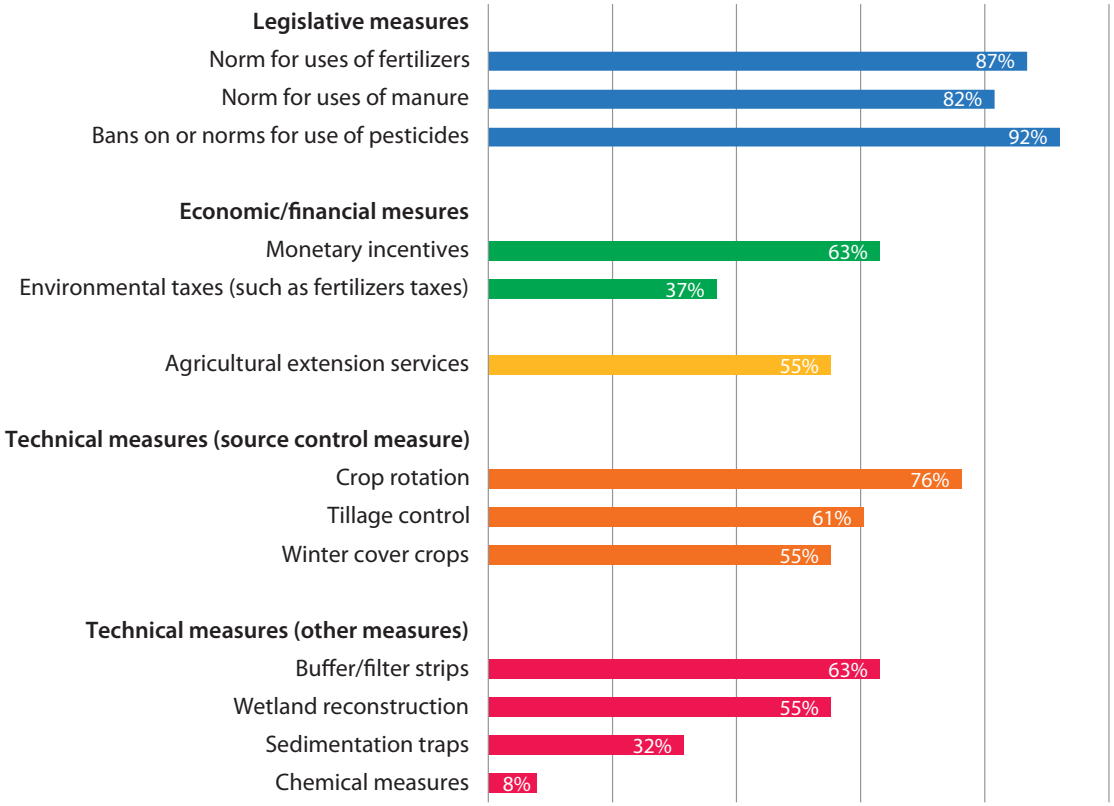


Figure 10: Main measures to reduce diffuse sources of water pollution (Art. 3), section I, question 1(f)



All reporting Parties confirmed that they have measures in place to reduce diffuse sources of pollution on transboundary waters. However, as illustrated in figure 10, the types of measures in place differ. Legislative measures appear to be the most common option, while economic and financial measures, and in particular the use of environmental taxes, appear not to be widely used.

In relation to groundwaters, only one reporting Party suggested that it did not have any specific measures in place to prevent the pollution of groundwaters (question 1(i)).

What can we learn from the responses?

Responses to section I, question 1(d), (e), (f) and (i) suggest a strong convergence between the relevant requirements of the Water Convention on the licensing, control and monitoring of pollution (point and non-point source) and the responses submitted by the Parties. Parties have adopted licensing and permitting systems to prevent, control and reduce pollution at source (Art. 3(1)(a)), and there is a tendency to ensure that all sectors are covered by such systems.

The setting of emission limits based on the best available technology (Art. 3(1)(c) and (f)), and the monitoring of discharges and their impact also appear to be commonplace at the national level.

While there appears to be a concerted practice of adopting systems at that national level for the licensing, control and reduction of pollution, it should be noted that the quality and extent of any national systems for regulating and monitoring pollution, as well as their effectiveness, was not captured through the reporting exercise.

2.3 Laws and procedures for environmental impact assessment

What does the Convention say?

Article 3(1)(h) of the Water Convention requires Parties to have in place measures of assessment, and most notably environmental impact assessment (EIA) procedures. This requirement is also supplemented by Article 9(2)(j), whereby any established joint body shall, in accordance with international regulations, be assigned the task of participation in the implementation of EIAs relating to transboundary waters, and in accordance with international regulations.

The most pertinent international regulation in this regard is the Convention on the Environmental Impact Assessment in a Transboundary Context (Espoo Convention),[15] which was adopted on 25 February 1991 and entered into force on 10 September 1997. The Espoo Convention requires that each Party adopt legislative and administrative transboundary EIA procedures. Only two of the reporting Parties are not party to the Espoo Convention (the Russian Federation and Uzbekistan).

What have countries reported?

The influence of the Espoo Convention is evident in the responses from the Parties, with 37 out of the 38 reporting Parties confirming that transboundary EIA was a requirement at the national level. The majority of reporting Parties (34 out of 38) also confirmed that procedures for transboundary EIA were in place.

What can we learn from the responses?

The responses from the Parties suggest that EIA laws and procedures are by and large in place, although it is noteworthy that there are four instances where procedures appear not to be in place.

Ambiguity in the way certain questions were framed may explain some of these instances. For example, section I, question 2 asks if a country requires a transboundary EIA, and then separately whether procedures

[15] EU Member States are also obliged to follow relevant directives, such as Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment, amended on several occasions (Directive 97/11/EC of 3 March 1997; Directive 2003/35/EC of 26 May 2003; and Directive 2014/52/EU of 16 April 2014).

are in place for transboundary EIA. This question could have been clearer by explicitly asking whether the *national laws* of a country require for transboundary EIA, and then whether procedures for transboundary EIA are in place – *either within those national laws or elsewhere*. The fifth review of the implementation of the Espoo Convention provides further insights for those countries that are Party to it.[16] The Review observed that the "majority of Parties implement the [Espoo] Convention by acts adopted by their legislature", and that "generally those acts provide for both domestic and transboundary EIA procedures".[17]

[16] ECE, Fifth Review of Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context (2013–2015), 4 April 2017 (UN Doc. ECE/MP.EIA/2017/9).

[17] Ibid, p. 10.

Chapter 3

Lake Aydar shared by Kazakhstan and Uzbekistan

Transboundary agreements and arrangements

Key messages

- **Almost all reported transboundary basins have agreements or arrangements in force at the basin level.**
- **While the Water Convention requires riparian Parties to stipulate in their agreements or arrangements "the catchment area, or part(s) thereof" subject of cooperation, there are at least 15 river and lake basins that do not have such agreements or arrangements in place.**
- **At least 15 transboundary river and lake basins do not have an agreement or arrangement in place covering the entire basin, and at least 29 transboundary river and lake basins do not have agreements or arrangements in place covering transboundary aquifers.**
- **Topics of cooperation included within agreements or arrangements align to key topic areas contained in the Water Convention, although some areas such as the elaboration of joint water quality objectives (Art. 9(2)(e)), mutual assistance (Art. 15), the maintenance of joint pollution inventories (Art. 9(2)(c)), and climate adaptation are less represented.**

3.1 The obligation to enter into agreements or arrangements

What does the Convention say?

The preamble to the Water Convention emphasizes that, "cooperation between member countries in regard to the protection and use of transboundary waters shall be implemented primarily through the elaboration of agreements between countries bordering the same waters, especially where no such agreements have yet been reached". The role that agreements play in implementing the Water Convention is further provided for in Article 9(1), which obliges riparian Parties to "enter into bilateral or multilateral agreements or other arrangements" in order to support the implementation of the Convention.

This obligation to enter into agreements or arrangements is only directed at riparian Parties. While entering into agreements or arrangements with non-Parties sharing a particular river, lake or aquifer might support the implementation of the Water Convention and is therefore encouraged, there is no explicit obligation in the Convention to enter into such agreements with non-Parties.[18]

What have countries reported?

The reporting template requires countries to list all agreements and arrangements that are in place for a particular transboundary river, lake or aquifer (section II, question 1). Countries were also asked whether an agreement or arrangement was in existence and in force, developed but not in force, developed but not in force for all riparians, under development, or absent.

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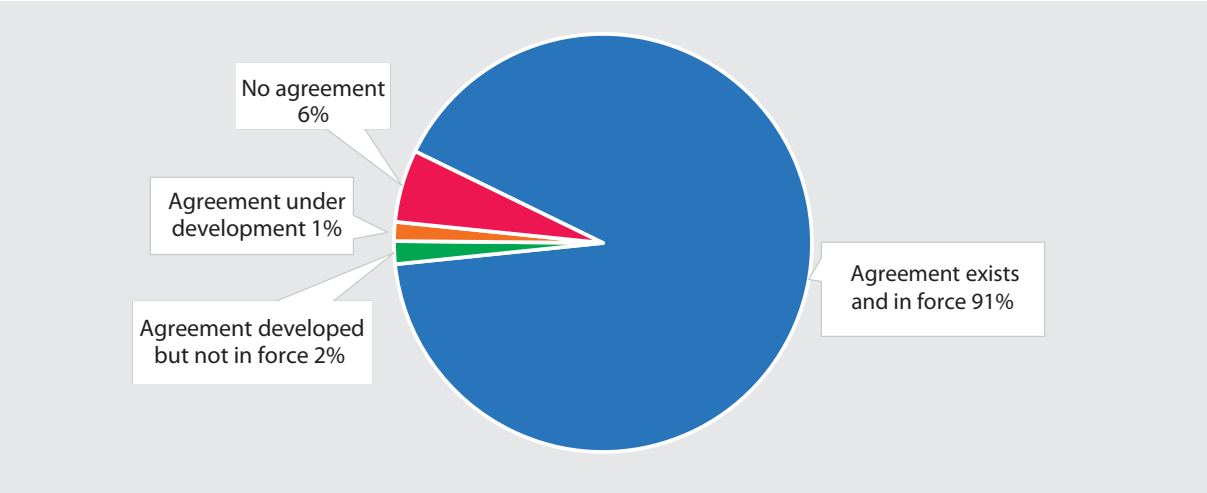
[18] ECE, Guide to Implementing the Water Convention, New York and Geneva, 2013 (UN Doc. ECE/MP.WAT/39) para. 239.

Out of a total of 339 responses to this question, the majority of responses (309 or 91 per cent) confirmed that an agreement exists and is in force (Figure 11).

Figure 11: Does an agreement exist? (Art. 9(1)) – based on all responses to section II, question 1



A list of all agreements and arrangements, as well as the transboundary waters to which they apply, is provided for in Annex III. This list shows that agreements and arrangements take diverse forms. The list also shows that the same transboundary waters might be subject to multiple agreements and arrangements depending on the particular context and the interests of the Parties concerned. One example is the Danube River Basin, which is the subject of the basin-wide Convention on Co-operation for the Protection and Sustainable Use of the Danube River of 1994 (Danube River Protection Convention), a sub-basin arrangement for the Sava River Basin of 2002 (The Framework Agreement on the Sava River Basin), and numerous bilateral arrangements among the neighbouring riparian States of the Danube.

What can we learn from the responses?

An important insight from responses to section II, question 1 is that there were 30 instances where reporting Parties stated that an agreement was not in force. These instances relate to 13 transboundary basins and sub-basins. In four instances (Aral Sea Basin,[19] Danube River Basin,[20] Drin River Basin[21] and Struma River Basin[22]), while an agreement or arrangement was not yet in force within a particular sub-basin or part of the basin, for example a bilateral agreement between Serbia and Croatia, one was in force at the basin level, namely the Danube River Protection Convention. In three other instances (the Kura,[23] Neman[24] and Vistula[25] river basins), Parties reported that an agreement or arrangement was in place at the sub-basin and/or bilateral level but not at the basin level. In four additional basins (Pregel,[26] Torne,[27] Vijosa[28] and Vardar/Axios[29] river basins), different responses from reporting Parties meant that it was not possible to confirm whether an agreement was in force. The remaining two cases where it was reported that no agreement or arrangement is in force are the Oiapoque/Oyupock[30] and Prohladnaja/

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19 The Aral Sea Basin is shared between Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

20 The Danube Basin is shared between Albania, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Italy, Montenegro, Poland, Romania, Republic of Moldova, Serbia, Slovakia, Slovenia, Switzerland, Ukraine and the former Yugoslav Republic of Macedonia.

21 The Drin Basin is shared between Albania, Greece, Kosovo (UN administered territory under UN Security Council Resolution 1244), Montenegro and the former Yugoslav Republic of Macedonia.

22 The Struma River Basin is shared between Bulgaria, Greece, Serbia and the former Yugoslav Republic of Macedonia.

23 The Kura River Basin is shared between Armenia, Azerbaijan, Georgia, Islamic Republic of Iran and Turkey.

24 The Neman River Basin is shared between Belarus, Latvia, Lithuania, Poland and the Russian Federation.

25 The Vistula River Basin is shared between Belarus, Poland, Slovakia and Ukraine.

26 The Pregel River Basin is shared between Lithuania, Poland and the Russian Federation.

27 Sweden and Finland confirmed that an agreement is in place, while Norway, which only shares 4% of the basin, stated they only have an informal agreement in place with Sweden.

28 The Vijosa River Basin is shared between Albania and Greece.

29 The Vardar/Axios River Basin is shared between Greece and the former Yugoslav Republic of Macedonia.

30 The Oyapock/Oiapoque River Basin is shared between French Guiana and Brazil.

Box 1: Insights from practice: the negotiation and adoption of the Dniester Treaty

Under the framework of the Water Convention, the Republic of Moldova and Ukraine embarked on a process of negotiating a basin-wide Treaty for the Dniester Basin in the late 1990s in order to build upon and revise existing bilateral arrangements in the Basin, and to bring about cooperative arrangements in line with the Water Convention. Through a series of projects supported by the Global Environment Facility (GEF), the Organization for Security and Co-operation in Europe (OSCE), ECE and the United Nations Environment Programme (UNEP), a Treaty on Cooperation in the Field of Protection and Sustainable Development of the Dniester River Basin was adopted on 29 November 2012 and entered into force in 2017.

Founded on the key principles of the Water Convention and Watercourses Convention, the Treaty significantly broadens the existing cooperative arrangements to cover the entire river basin and all sectors that are important for the protection and management of the shared waters.

For further information: Bo Libert, "The UNECE Water Convention and the development of transboundary cooperation in the Chu-Talas, Kura, Drin and Dniester River Basins", *Water International*, vol. 40, No. 1 (2015), pp. 168–182.

NGO support at Dniester Treaty signing ceremony, 29 November 2012, Rome, Italy

Swieza[31] River Basins. However, it should also be noted that the Kura and the Oiapoque/Oyupock river basins are shared with non-Parties to the Convention.

As noted in chapter 1, an additional 19 transboundary river and lake basins shared by at least one riparian Party were not reported. From the pilot reporting exercise, it is not possible to confirm whether or not agreements or arrangements are in force for these basins[32].

Where Parties did report that no agreements or arrangements were in place for a particular transboundary basin, sub-basin or part(s) thereof, they gave several reasons, including:

- Negotiations to develop an agreement or arrangement were ongoing.
- An informal strategy was deemed sufficient within the particular context.
- Negotiations to develop an agreement or arrangement had been suspended.
- An agreement or arrangement for a fixed term had expired, and a new one had to be negotiated.
- An agreement or arrangement was formally in force but cooperation had discontinued.
- An antiquated agreement or arrangement had to be updated.

A further point to note is that, in some instances, countries have chosen not to enter into formal agreements or arrangements because only a small proportion of the transboundary basin is shared. For instance, countries that share less than 2,000 km^2 of the Danube River Basin (Albania, Italy, Poland, Switzerland and the former Yugoslav Republic of Macedonia) are not contracting Parties to the Danube River Protection Convention even though cooperation between the contracting Parties and other Danube countries exists through, for example, the activities of the International Commission for the Protection of the Danube River (ICPDR). Along similar lines, the contracting Parties to the Convention on the Protection of the Rhine of 1999 include France, Germany, Netherlands, Luxembourg, Switzerland

[31] Prohladnaja/Swieza River Basin is shared between Poland and the Russian Federation.

[32] A list of these basins is provided in Annex II.

and the European Commission. Austria, Belgium and Lichtenstein, while not Party to the Convention, cooperate with the other Rhine basin states through the International Commission for the Protection of the Rhine (ICPR) and its coordination committee.

3.2 The geographic scope of agreements and arrangements

What does the Convention say?

In terms of geographic scope, the Water Convention stipulates that "riparian Parties shall specify the catchment area, or part(s) thereof, subject to cooperation" (Art. 9(1)). This requirement is supplemented by Article 2(6), which obliges Parties to "cooperate on the basis of equality and reciprocity, in particular through bilateral and multilateral agreements, in order to develop harmonized policies, programmes and strategies covering relevant *catchment areas*, or parts thereof..." [emphasis added].

Another important provision of the Water Convention relating to geographic scope is Article 1, which provides the definition of "transboundary waters" and "transboundary impact". Both definitions are holistic in terms of covering *all* transboundary waters, including rivers, lakes and aquifers. The holistic nature of the term "transboundary waters" is further explained in the *Guide to Implementing the Water Convention,* which comments that:

> … transboundary waters should not be limited to a water body (e.g. a river, a lake, an aquifer), but should cover the catchment area of the said water body (or in case of an aquifer, whether confined or unconfined, its entire recharge area). The entire catchment area of a surface water body or a recharge area of the aquifer should be understood as the area receiving the waters from rain or snow melt, which drain downhill (on the surface or below the surface of the ground in the unsaturated or saturated zones) into a surface water body or which infiltrate through the subsoil (i.e. the unsaturated zone) into the aquifer.[33]

Box 2: Definitions of transboundary waters and transboundary impact under the Water Convention

Article 1(1): **"Transboundary waters"** means any surface or ground waters which mark, cross or are located on boundaries between two or more States; wherever transboundary waters flow directly into the sea, these transboundary waters end at a straight line across their respective mouths between points on the low-water line of their banks.

Article 1(2): **"Transboundary impact"** means any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party, within an area under the jurisdiction of another Party. Such effects on the environment include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; they also include effects on the cultural heritage or socio-economic conditions resulting from alterations to those factors.

Confluence of the Rhone and Arve Rivers in Geneva, Switzerland

[33] See ECE, Guide to Implementing the Water Convention, New York and Geneva, 2013, para 74.

What have countries reported?

In terms of geographic scope, the reporting template requested countries to state whether an agreement or arrangement specifies the basin or sub-basin area that is subject to cooperation (section II, question 2(a)). Out of a total of 315 responses to this question, 235 (or 75 per cent) confirmed that the agreement or arrangement in question specified the area of the basin.

In order to better understand the geographic scope of agreements and arrangements, the reporting template also asked whether an agreement or arrangement covered an entire basin, a sub-basin, a group of basins and all the riparian States concerned (section II, question 2(a)). Out of a total of 302 responses to this question, only 161 (or 53 per cent) indicated that the agreement or arrangement in question covered the entire basin or sub-basin and all riparian States.

Another question in the template relating to geographic scope asked whether aquifers were covered by an agreement or arrangement (section II, question 2(b)). Out of a total of 314 responses to this question, 202 (or 64 per cent) indicated that aquifers were covered by the particular agreement or arrangement in question.

What can we learn from the responses?

While Article 9(1) of the Water Convention requires riparian Parties to stipulate in their agreements or arrangements "the catchment area, or part(s) thereof, subject to cooperation", the responses show that this is not always done. When analyzed at the basin level it appears that at least 15 river and lake basins do not have an agreement or arrangement in place that specifies the catchment area or part(s) thereof subject to cooperation. An analysis of the cases where the catchment area or part(s) thereof are not specified suggests that they relate to agreements and arrangements that use more general terms such as "transboundary waters" or "border waters". In five additional river and lake basins, different responses from riparian Parties meant that it was not possible to ascertain whether or not the agreements or arrangements specify the catchment area, or part(s) thereof.

In terms of the geographic scope of agreements and arrangements, at least 15 basins lack agreements or arrangements that cover the entire basin. Three of those cases have agreements or arrangements in place that cover sub-basins, namely the Vistula[34] and Ob[35] river basins, and the Aral Sea Basin.[36] In 13 additional river and lake basins, different responses from riparian Parties, or the absence of a response to the relevant question, meant that it was not possible to ascertain whether or not agreements or arrangements cover an entire basin or sub-basin.

Reporting Parties have provided several reasons why agreements or arrangements do not cover entire basins or sub-basins, including a lack of specificity or ambiguity concerning geographic scope within the agreement or arrangement itself, and a narrow geographic or sectoral focus of the agreement or arrangement. For example, riparian Parties might interpret an agreement or arrangement as only covering waters that cross, are located on, or demarcate sovereign borders between riparian Parties.

Ambiguity in the reporting template might also have resulted in different responses as it was unclear whether question 2(a) was asking if the agreement or arrangement should explicitly or implicitly cover the entire basin. This issue can be clarified in future reporting guidance.

The inclusion of transboundary aquifers within agreements or arrangements does not appear to be widespread. At least 29 river and lake basins do not have agreements or arrangements that cover transboundary aquifers. In 25 additional river and lake basins it was not possible to ascertain whether transboundary aquifers are included in the relevant agreements or arrangements due to different responses from riparian Parties.

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34 For a list of countries sharing the Vistula River Basin see supra note 25.

35 The Ob River Basin is shared between China, Kazakhstan, Mongolia and the Russian Federation.

36 For a list of countries sharing the Aral Sea Basin see supra note 19.

It is difficult to draw any firm conclusions from this finding because of the difficulty of ascertaining which transboundary aquifers are covered by existing agreements or arrangements. The reporting template can therefore be improved by asking countries to name the aquifers covered by an agreement or arrangement. Further investigation would then be needed to consider the extent to which the 290 transboundary aquifers listed in the *Second Assessment* are incorporated into existing agreements or arrangements.[37] It can however be noted that the need for stronger legal and institutional cooperation related to groundwaters has been recognized in both the *Second Assessment* and in the development of the *Model Provisions on Transboundary Groundwaters*.[38]

3.3 The functional scope of agreements and arrangements

What does the Convention say?

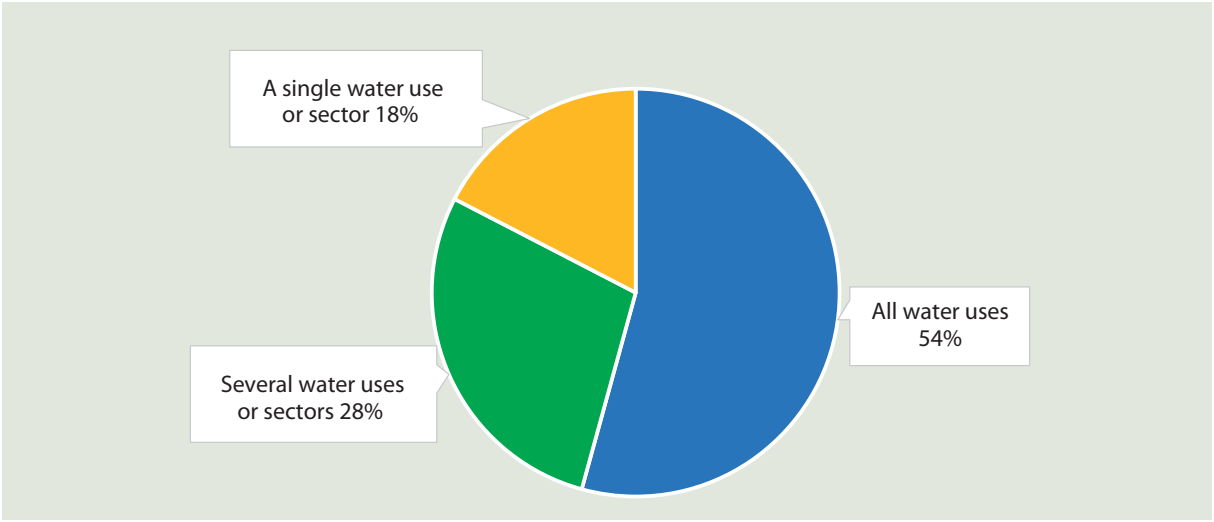
Article 9(1) provides that agreements or arrangements should be consistent with "the basic principles of the Convention", and they must include "relevant issues covered by this Convention, as well as any other issues on which the Riparian Parties may deem it necessary to cooperate."

What have countries reported?

The functional scope of agreements and arrangements was addressed through two questions in the template. First, relating to the sectoral scope of agreements and arrangements (section II, question 2(c)), and second, concerning the topics or subjects of cooperation included within agreements and arrangements (section II, question 2(d)).

Just over half of the responses concerning the sectoral scope of agreements and arrangements indicate that agreements and arrangements cover all water uses (Figure 12).

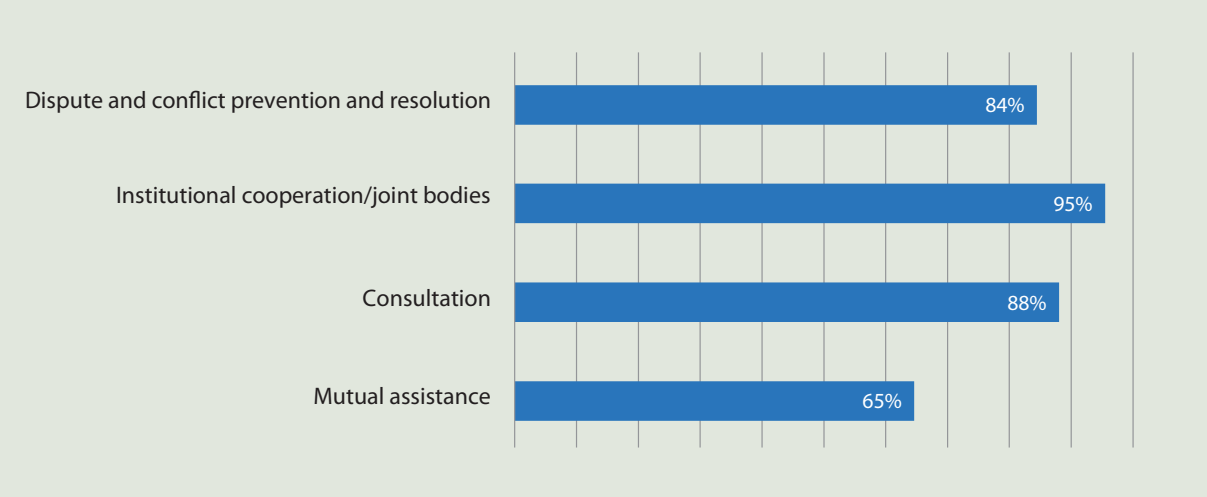
Figure 12: Sectoral scope of the agreement or arrangement – based on responses to section II, question 2(c) for all arrangements in force



The responses also show that a diverse range of topics or subjects of cooperation are reflected in agreements and arrangements. In relation to procedural and institutional mechanisms, nearly all the responses suggest that agreements or arrangements include provisions related to institutional cooperation (joint bodies). Provisions concerning the consultation of planned measures and dispute settlement are also reflected in most of the responses (Figure 13).

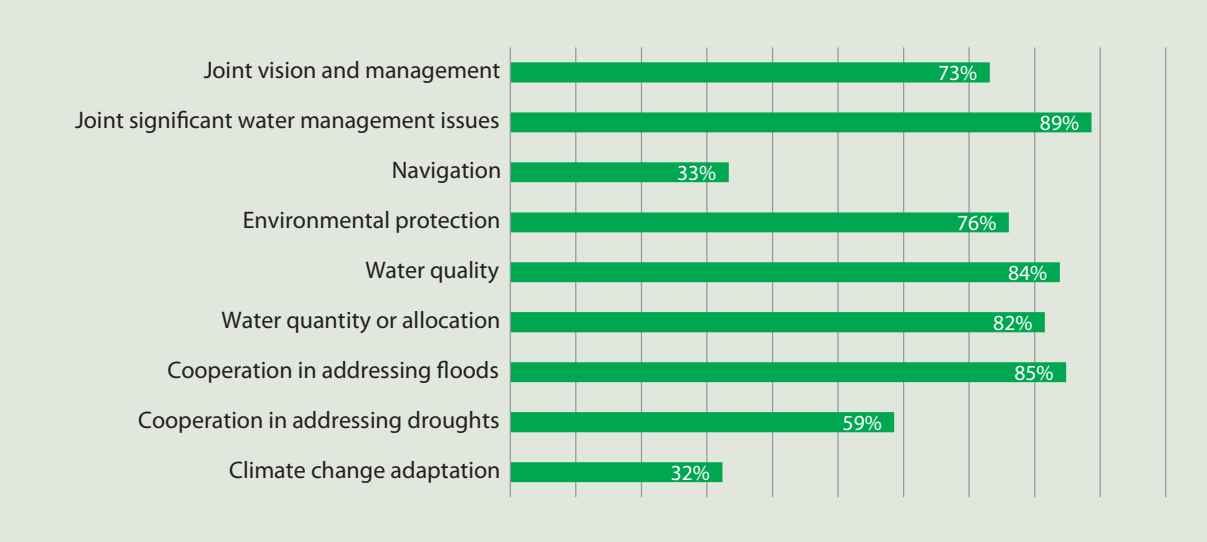
[37] ECE, Second Assessment of Transboundary Rivers, Lakes and Groundwaters, New York and Geneva, 2011, pp. 23–28.
[38] ECE, Model Provisions on Transboundary Groundwaters, New York and Geneva, 2014 (UN Doc. ECE/MP.WAT/40).

Figure 13: Topics or subjects of cooperation included in the agreement or arrangement: Procedural and institutional issues – based on responses to section II, question 2(d) for all arrangements in force



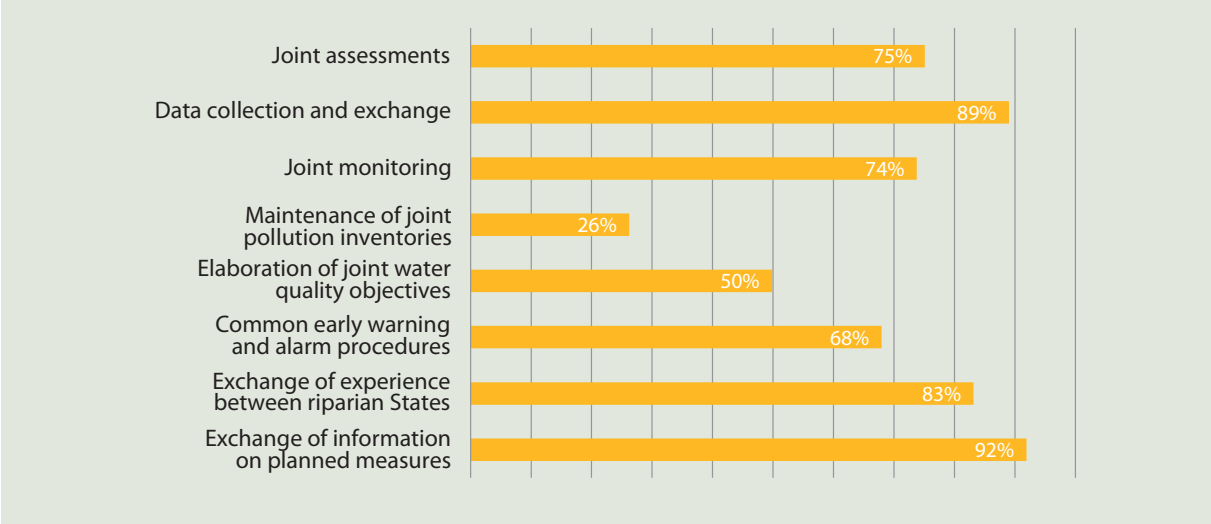
In terms of the specific areas of cooperation "joint significant water management issues", "environmental protection" (ecosystems), "water quality", "water quantity or allocation" and "cooperation in addressing floods" are the most commonly cited topics covered in agreements or arrangements, with "climate change adaptation" being the least cited topic of cooperation (Figure 14).

Figure 14: Topics or subjects of cooperation included in the agreement or arrangement: Topics of cooperation – based on responses to section II, question 2(d) for all arrangements in force



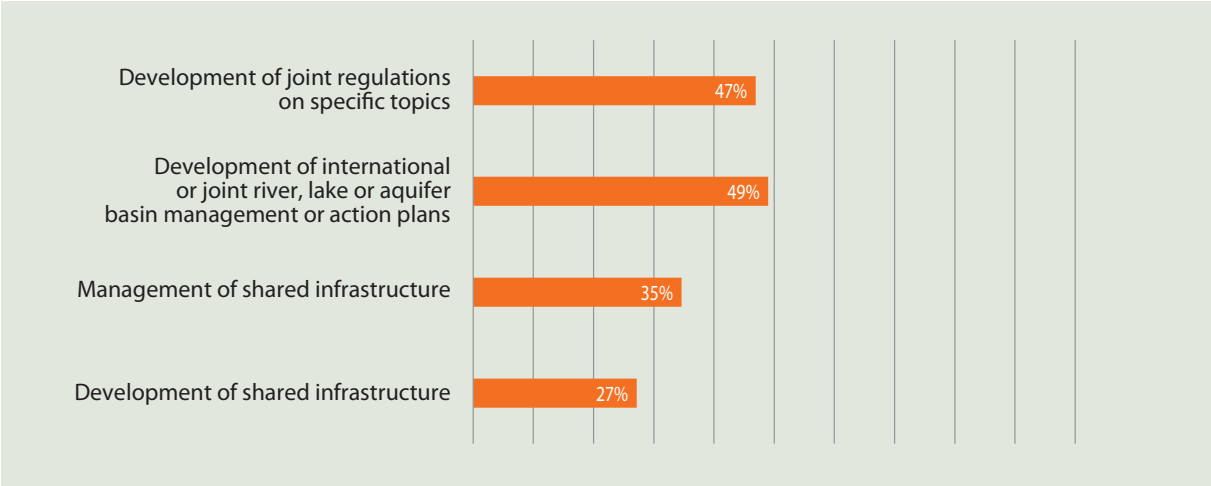
Common features of agreements or arrangements related to monitoring and exchange include joint assessments, data collection and exchange, joint monitoring, early warning and alarm procedures, the exchange of experiences between riparian States, and the exchange of information on planned measures (Figure 15). Less cited features of agreements or arrangements include the maintenance of joint pollution inventories and the elaboration of joint water quality objectives.

Figure 15: Topics or subjects of cooperation included in the agreement or arrangement: Monitoring and exchange – based on responses to section II, question 2(d) for all arrangements in force



A further area of cooperation represented in the template, but less evident in agreement and arrangements, concerns joint planning and management (Figure 16).

Figure 16: Topics or subjects of cooperation included in the agreement or arrangement: Joint planning and management – based on responses to section II, question 2(d) for all arrangements in force

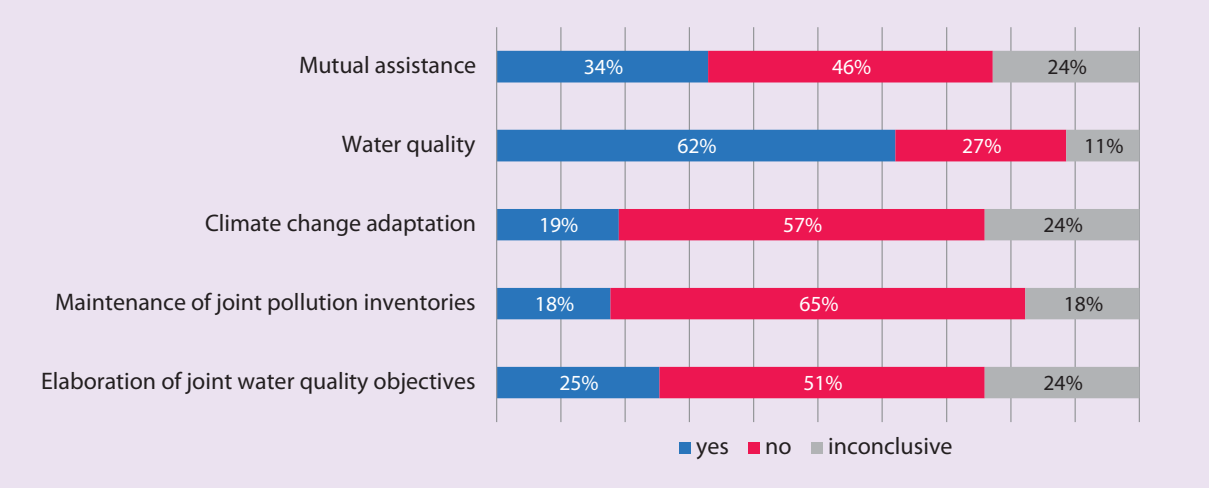


What can we learn from the responses?

The responses demonstrate that key procedural and institutional issues, and matters related to water quality and quantity, and monitoring and exchange are well reflected in existing agreements and arrangements. These responses map well to key requirements of the Water Convention, such as the establishment of joint bodies (Art. 9(2), joint monitoring and assessment (Art. 11), exchange of information (Art. 13), dispute settlement procedures (Art. 22), and consultations (Art. 10)).

However, the responses suggest that certain provisions of the Water Convention, such as the maintenance of joint pollution inventories (Art. 9(2)(c)), the elaboration of joint water quality objectives and criteria (Art. 9(2)(e)), and the provision of mutual assistance (Art. 15) are not widely provided for within the text of agreements or arrangements. Provisions on climate change adaptation would also appear to be limited. When considered at the basin level, a significant percentage of basins lack provisions related to these topics of cooperation (Figure 17).

Figure 17: Percentage of basins where certain topics or subjects of cooperation are included in the agreement or arrangement – based on consolidated basin level responses for section II, question 2(d)



It is difficult to draw any firm conclusions from these findings because the reporting template simply asked what was covered in the agreements and arrangements themselves. It may well be that through the activities in support of the implementation of these agreements and arrangements a broader set of topics of cooperation are supported. This will be considered further in chapters 4 and 5 of this report.

3.4 What are the main challenges in implementing agreements and arrangements?

Question 2(e) of the reporting template asked riparian Parties to report on the main difficulties and challenges they faced with agreements and arrangements and their implementation. While this was an open question, figure 18 provides an overview of these responses, which have been clustered in order to illustrate the frequency of responses across Parties.

Figure 18: Main difficulties and challenges faced with the agreement or arrangement and its implementation - based on responses to section II, question 2(e) for all arrangements in force

3.5 What are the main achievements in implementing agreements and arrangements?

Question 2(f) of the reporting template asked riparian Parties to report on the main achievements in implementing the agreements and arrangements, and the keys to achieving success. While this was an open question, figures 19 and 20 provide an overview of these responses, which have been clustered in order to illustrate the frequency of responses across Parties.

Figure 19: Main achievements in implementing the agreement or arrangement – based on responses to section II, question 2(f) for all arrangements in force

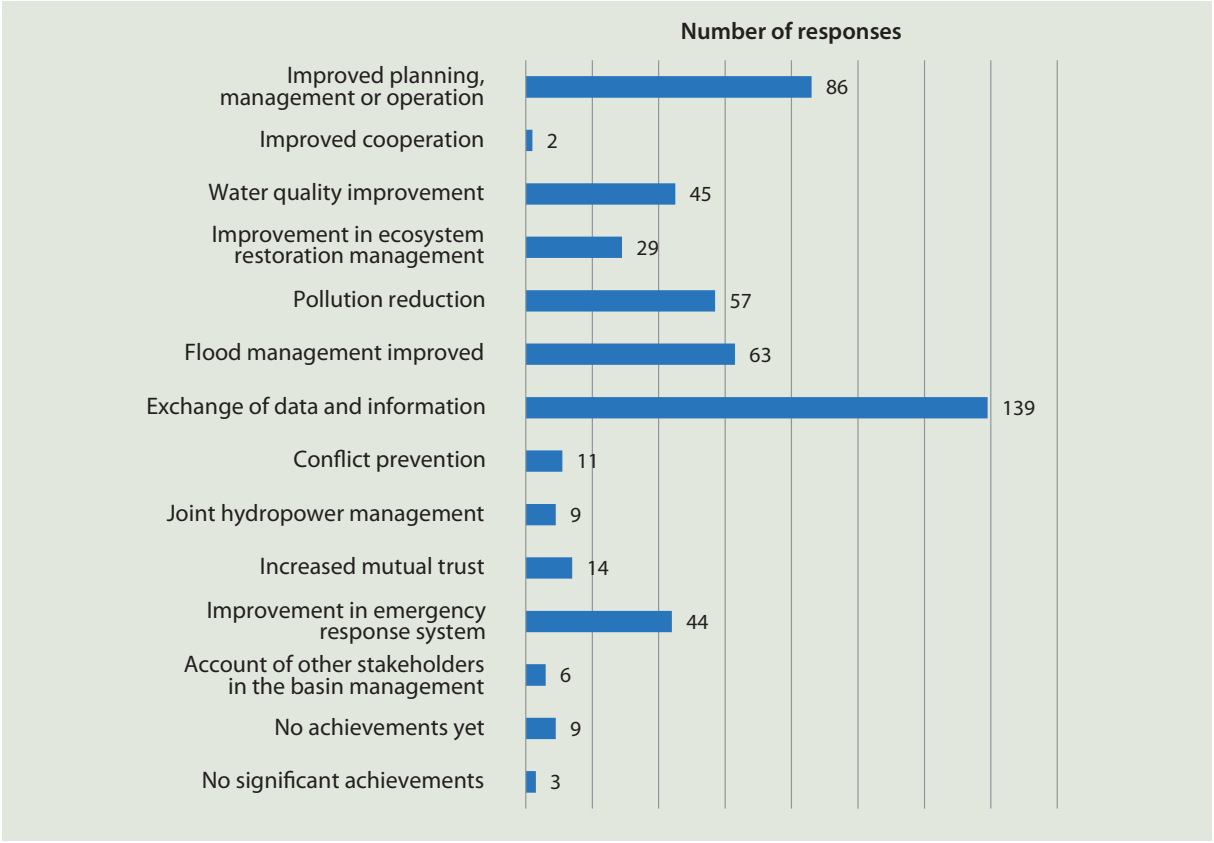
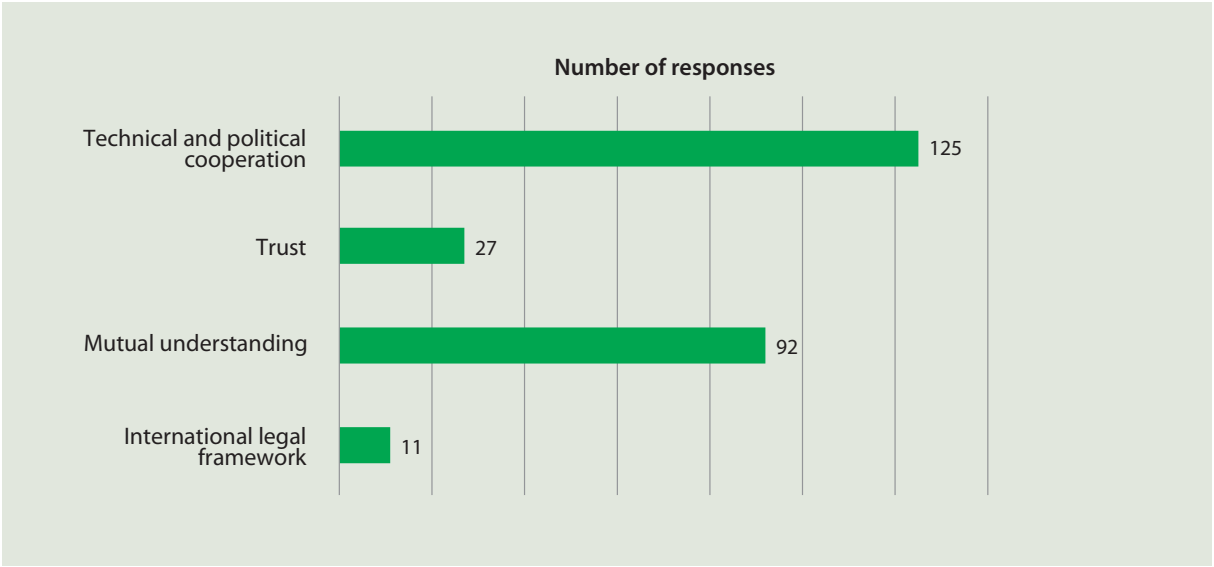


Figure 20: Keys to success in implementing agreements or arrangements – based on responses to section II, question 2(f) for all arrangements in force



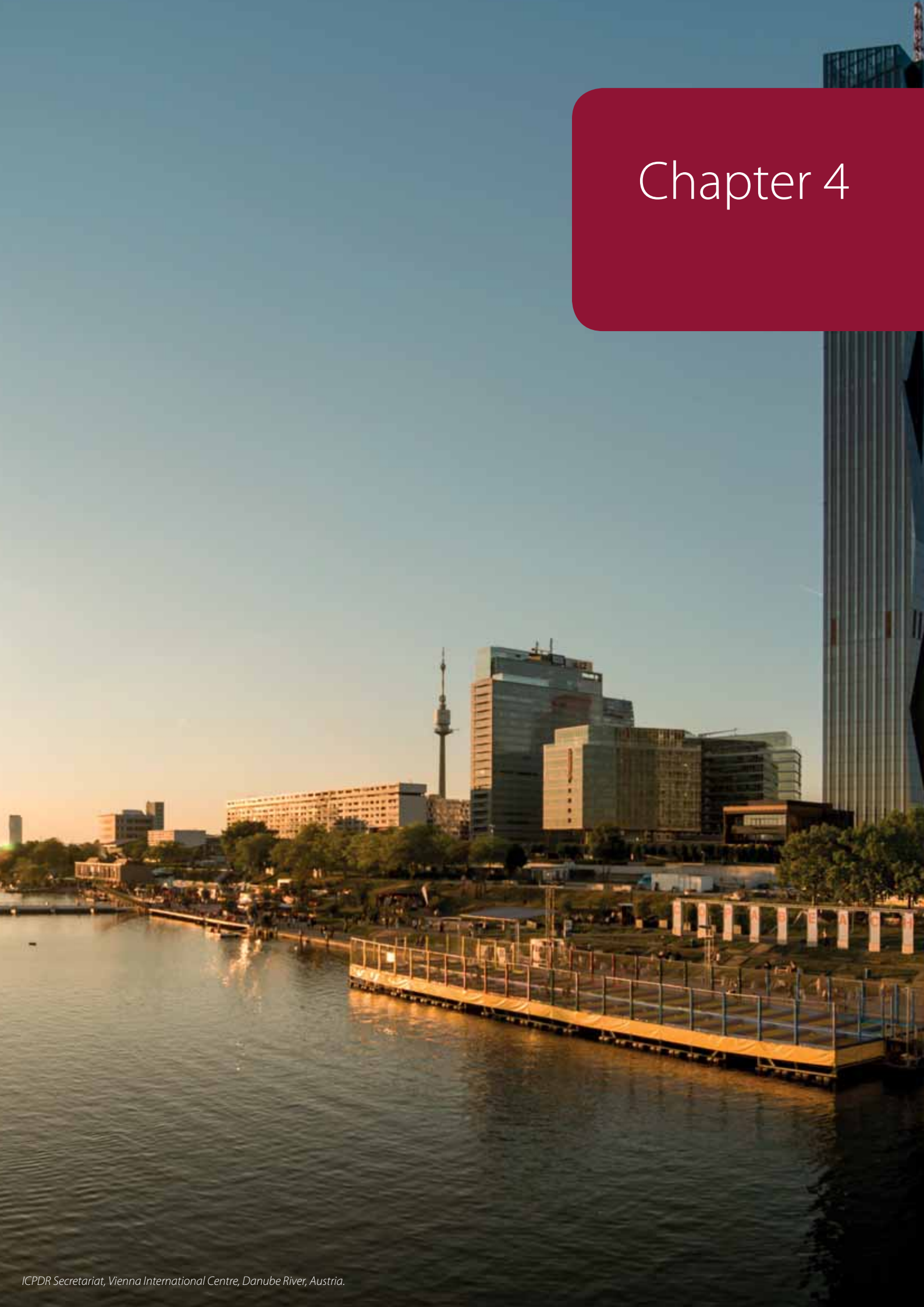
Box 3: Insights from practice: the 1964 Agreement between Finland and the Russian Federation concerning Frontier Watercourses

The national report for Finland highlights how long-term cooperation under the auspices of a 1964 bilateral agreement with the Union of Soviet Socialist Republics has helped resolve all major issues in a cooperative manner. Key achievements of this cooperation, as highlighted in the Finnish report, include: optimizing flow regulation of the River Vuoksi/ Lake Saimaa system through discharge rules that minimise damages and other losses, such as energy production due to floods and droughts in both countries; the development of flow regulation and potential compensation mechanisms for the cascade of hydropower stations on both sides of the border; the generation of common data for hydrological observation, modelling and prediction; joint alarm systems for exceptional floods and accidental pollution; joint water quality monitoring; and improved water pollution control and a significant reduction of pollution.

For further information see: http://www.rajavesikomissio.fi/

Vuoksi River Basin shared by Finland and the Russian Federation

Chapter 4



ICPDR Secretariat, Vienna International Centre, Danube River, Austria.

Joint bodies for transboundary waters

Key messages

- **Where agreements and arrangements for transboundary waters are in place, nearly all provide for a joint body, with the most common type consisting of a basin or similar commission.**
- **Many of the tasks and activities set out in Article 9(2) of the Water Convention are reflected in the tasks and activities of joint bodies. However, some tasks and activities, such as the maintenance of pollution inventories, setting emission limits, climate change adaptation, and basin-wide or joint public participation and consultation, appear to be less well represented.**
- **Joint bodies offer an effective means by which to foster long-term cooperation and effectively implement agreements and arrangements, although governance issues and a lack of resources are key challenges faced in their operation.**

The template for reporting includes a series of questions related to joint bodies. These questions consider how many joint bodies exist, as well as their form, tasks and activities, and any challenges and achievements they may experience through their operation.

4.1 The establishment of joint bodies

What does the Convention say?

Article 9(2) of the Water Convention stipulates that transboundary water agreements and arrangements must "provide for the establishment of joint bodies" (Art. 9(2)).[39] As with the adoption of agreements and arrangements, riparian Parties are therefore obliged to establish joint bodies.

What have countries reported?

Section II, question 3 of the reporting template asks countries to report on whether they are a member of a joint body or bodies for the relevant agreement or arrangement. Out of a total of 310 responses, 291 (or 94 per cent) confirmed that a joint body was in place.

Where joint bodies exist, countries were asked to report on the kind of joint body in place (section II, question 3(a)). The majority of joint bodies are classified as plenipotentiaries, bilateral commissions, basins or similar commissions, or 'other' (Figure 21). Other types of joint bodies reported by Parties included working groups and regular coordination meetings among government representatives.

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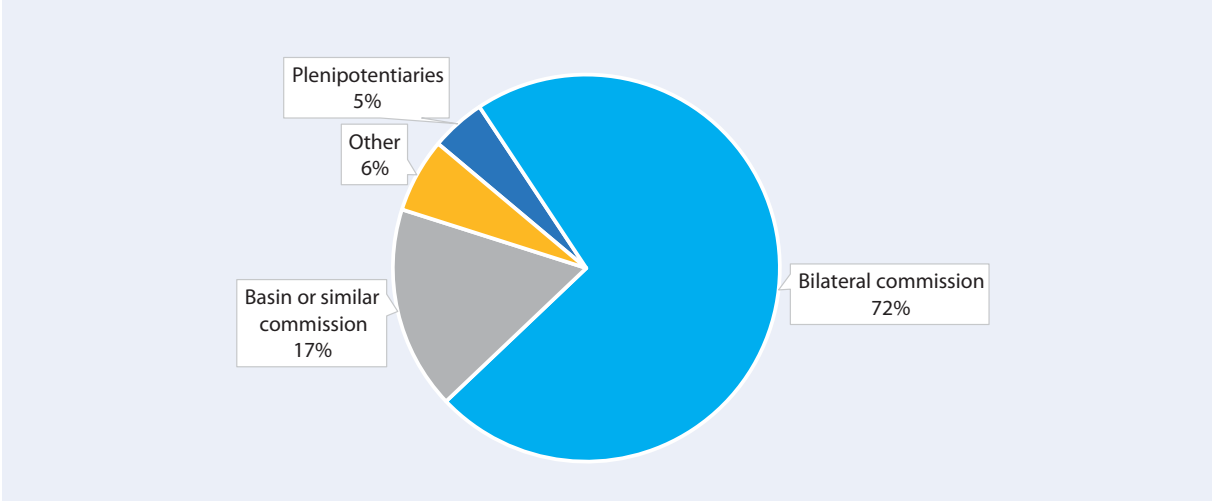
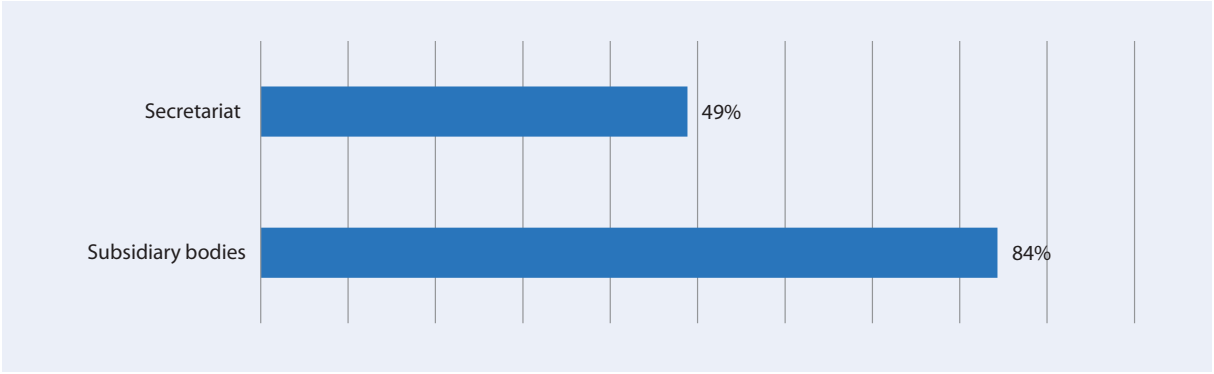
[39] See also ECE, Principles for Effective Joint Bodies for Transboundary Water Cooperation under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, New York and Geneva, 2018 (UN Doc. ECE/MP.WAT/50).

Figure 21: Types of joint bodies – based on responses to section II, question 3(a) for all countries that are members of a joint body



The reporting template also asked Parties to report on whether certain features were reflected in the joint bodies established. Figure 22 provides an overview of these features and the frequency of responses.

Figure 22: Features of joint bodies – based on responses to section II, question 3(d) for countries that are members of a joint body



The dynamic nature of joint bodies can be illustrated in the types of subsidiary bodies established, such as task forces and working groups. Reporting Parties listed a wide range of topics addressed by these subsidiary bodies, including floods, water quality, ecology/ecosystems, water quantity management, hydraulic engineering, thermal water, hydrogeology/groundwater, planning, accidental water pollution, monitoring, legal issues, information and data management, EU Water Framework Directive, economics, public participation, navigation, river basin management and nutrients.

What can we learn from the responses?

The responses demonstrate the central role that joint bodies play in the implementation of agreements and arrangements, as provided for in Article 9 of the Water Convention. Only in nine instances did Parties report that there was no joint body for a particular agreement or arrangement. In three of these cases (Kura,[40] Neman[41] and Syr Darya[42] river basins), at least one other joint body has been established within the basin pursuant to another agreement or arrangement. In two other instances (Paatsjoki/Pasvik[43] and Vijose[44] river basins), different responses from riparian Parties meant that it was not possible to determine if

[40] For a list of countries sharing the Kura River Basin see *supra* note 23.
[41] For a list of countries sharing the Neman River Basin see *supra* note 24.
[42] The Syr Darya River Basin is shared between Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan.
[43] The Paatsjoki/Pasvik River Basin is shared between Finland, Norway and the Russian Federation.
[44] For a list of countries sharing the Vijose River Basin see *supra* note 28.

a joint body exists. The four basins with no existing joint body are the Jandari Lake,[45] the Klarälven,[46] Murgab[47] and Jakobselv[48] river basins. Two of these basins (Jandari Lake and Murgab River Basin) are shared with non-Parties to the Water Convention. Also, in the case of the Klarälven River Basin it was noted by Sweden that there are consultation meetings held between riparian Parties when needed.

There are six instances where Parties reported that a joint body exists despite there being no current agreement in force. In three of these cases (in the Struma,[49] and Vardar[50] river basins, and parts of the Danube shared between Serbia and Bulgaria), an agreement had been developed but had not yet entered into force, and in two instances (in the Vistula[51], and parts of the Neman river shared between Poland and Belarus), agreements are under development. In the case of the Oiapoque/Oyupock River Basin[52], France reported that 'informal cooperation' takes place in the absence of an agreement.

4.2 The tasks and activities of joint bodies

What does the Convention say?

In addition to stipulating that joint bodies must be in place, Article 9(2) of the Water Convention includes a non-exhaustive list of tasks that joint bodies must carry out, including:

- To collect, compile and evaluate data in order to identify pollution sources likely to cause transboundary impact.
- To elaborate joint monitoring programmes concerning water quality and quantity.
- To establish joint inventories, and exchange information on pollution sources.
- To elaborate emission limits for waste water and evaluate the effectiveness of control programmes.
- To elaborate joint water quality objectives and criteria, and proposals for measures for maintaining and where necessary, improving the existing water quality.
- To develop concerted action programmes for the reduction of pollution loads from both point and diffuse sources.
- To establish warning and alarm procedures.
- To serve as a forum for the exchange of information on existing and planned uses of water and related installations likely to cause transboundary impact.
- To promote cooperation and the exchange of information on the best available technology, as well as encourage cooperation in scientific research programmes.
- To participate in the implementation of environmental impact assessments relating to transboundary waters.

As well as Article 9, other provisions of the Water Convention acknowledge the role of joint bodies in relation to consultations (Art. 10), joint monitoring and assessment (Art. 11), common research and development (Art. 12), exchange of information (Art. 13), warning and alarm systems (Art. 14), mutual assistance (Art. 15) and public information (Art. 16).

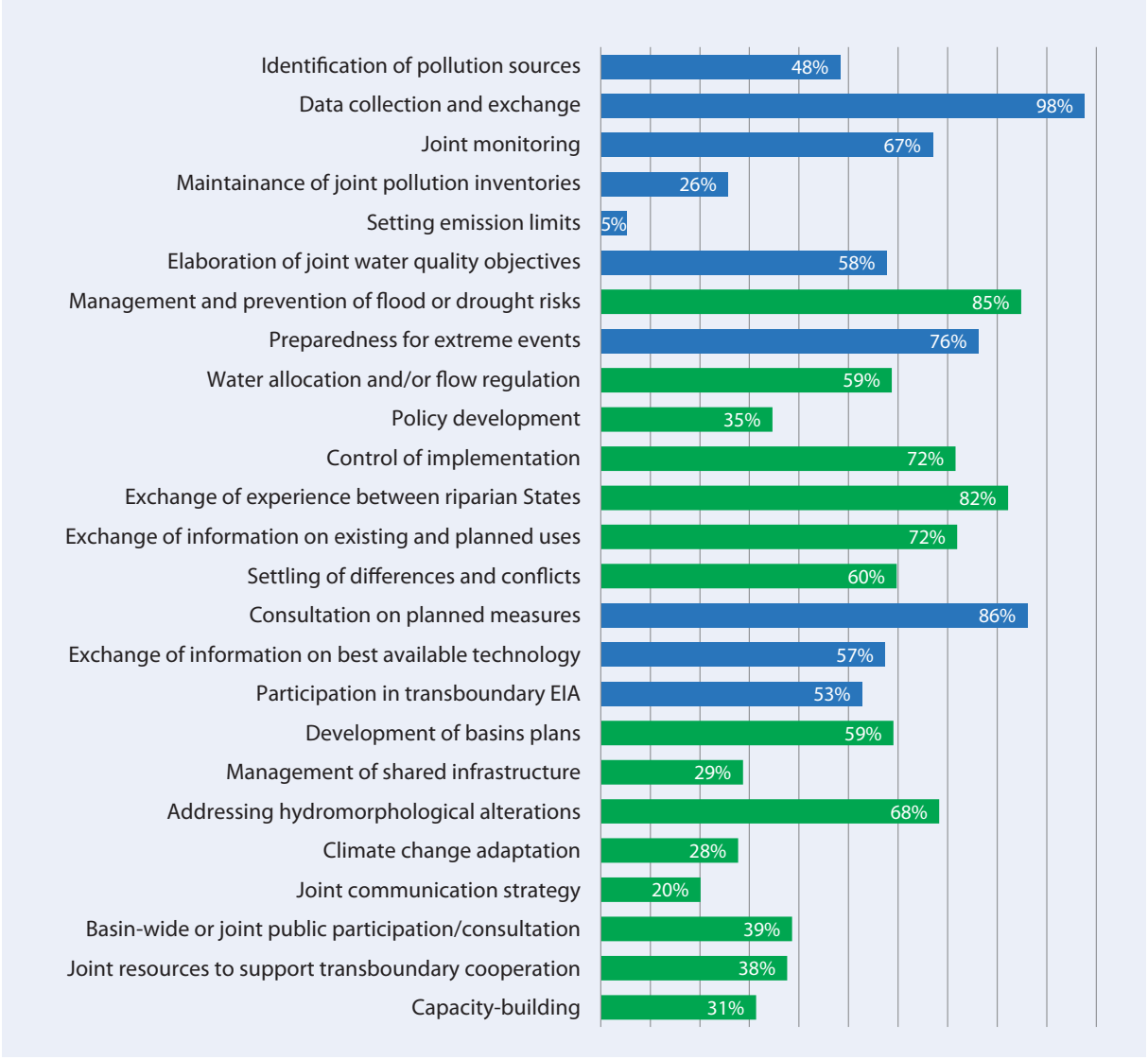
What have countries reported?

45 The Jandari Lake is shared between Azerbaijan and Georgia.
46 The Klarälven River Basin is shared between Norway and Sweden.
47 The Murgab River Basin is shared between Afghanistan and Turkmenistan.
48 The Jakobselv River Basin is shared between Norway and Russia.
49 For a list of countries sharing the Vijose River Basin see *supra* note 28.
50 For a list of countries sharing the Vardar River Basin see *supra* note 29.
51 For a list of countries sharing the Vistula River Basin see *supra* note 25.
52 For a list of countries sharing the Oiapoque/Oyupock River Basin see *supra* note 30.

Section II, question 3(e) of the reporting template asks countries to report on the tasks and activities of any established joint bodies. Figure 23 provides an overview of the responses and highlights in blue those tasks and activities that are explicitly provided for in Article 9(2) of the Water Convention.

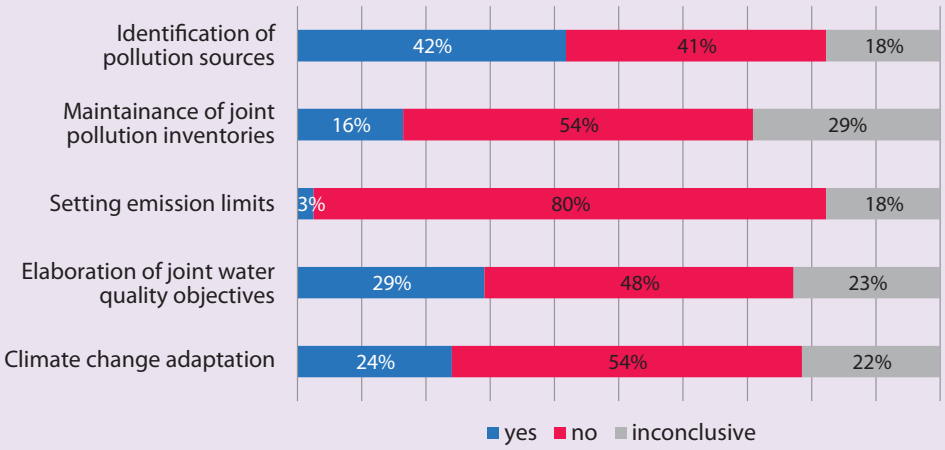
Figure 23: Tasks and activities of joint bodies (Art. 9, para. 2 (f)) – based on responses to section II, question 3(e) for all countries that are members of a joint body

What can we learn from the responses?



The summary of tasks and activities of joint bodies in figure 23 reveals that some of the tasks stipulated in Article 9(2) of the Water Convention are more frequently included than others. For instance, tasks and activities related to the elaboration of joint water quality objectives, the identification of pollution sources, the maintenance of joint pollution inventories, and the setting of emission limits are less well represented. Other activities such as climate change adaptation also do not appear to be widespread. As figure 24 illustrates, when considered at the basin level, a significant percentage of basins do not have joint bodies in place that perform tasks and activities related to the identification of pollution sources, the maintenance of joint pollution inventories, the setting of emission limits, the elaboration of joint water quality objectives, and climate change adaptation.

Figure 24: Percentage of basins where certain tasks and activities of joint bodies are included (Art. 9, para. 2 (f)) – based on consolidated basin level responses for section II, question 3(e)

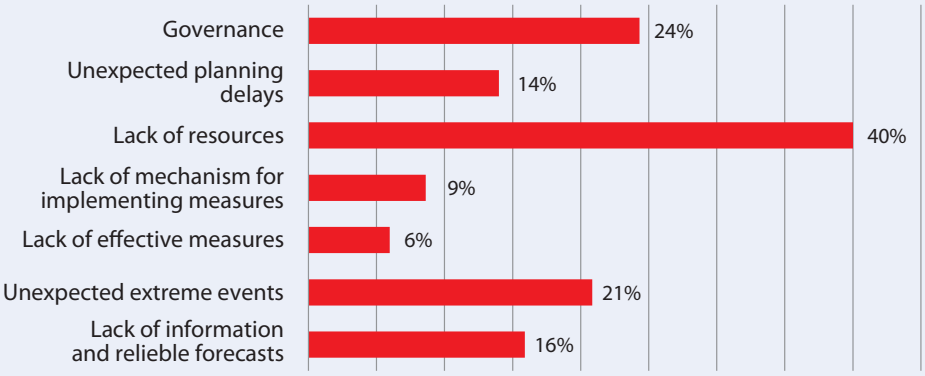


The responses to section II, question 3(e) may in part be explained by the way it is formulated, as it does not stipulate whether the tasks and activities within an agreement or arrangement, or whether the choice of tasks reflects the day-to-day activities undertaken by a particular joint body. This point might be clarified in subsequent reporting rounds and through any guidance provided for complete the template.

4.3 What are the main challenges faced in the operation of joint bodies?

Section II, question 3(f) of the reporting template asked countries to report on the main difficulties and challenges faced in the operation of a joint body. Figure 25 provides a summary of the responses provided by each country concerning each joint body.

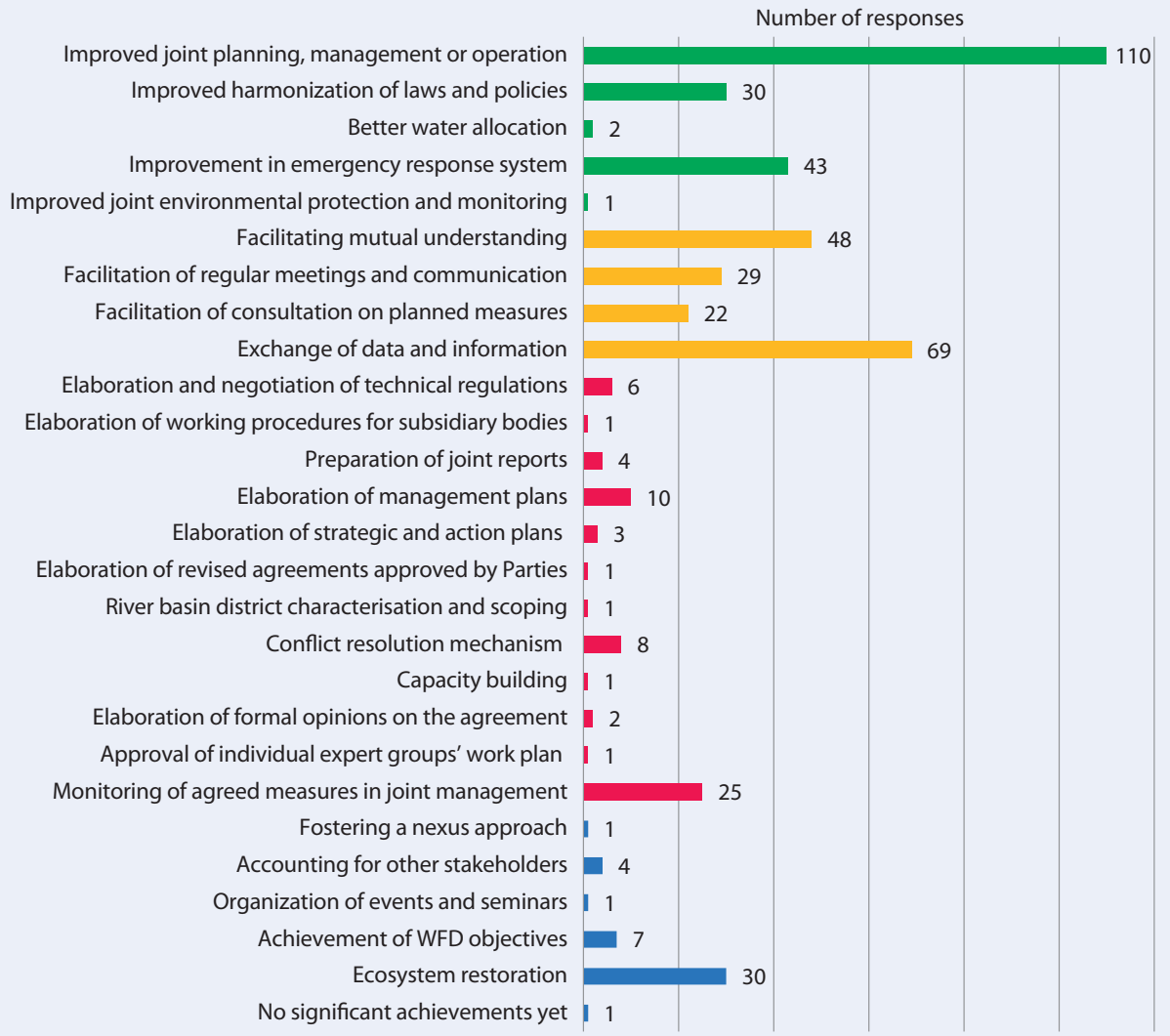
Figure 25: Main challenges and difficulties faced by joint bodies – based on responses to section II, question 3(f) for all countries that are members of a joint body



4.4 What are the main achievements with regard to joint bodies?

Section II, question 3(i) of the reporting template asked countries to report on the main achievements relating to joint bodies. While this was an open question, figure 26 provides an overview of responses, clustered in order to illustrate the frequency of responses across Parties.

Figure 26: Main achievements of joint body – based on responses to section II, question 3(i) for all countries that are members of a joint body



Box 4: Insights from practice: improving the ecological and chemical water quality of the Rhine

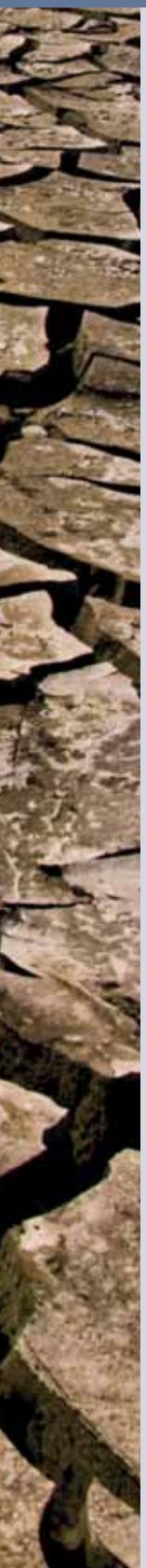
A key achievement of the International Commission for the Protection of the Rhine (ICPR) that was highlighted in the national reports was the noted improvement in the ecological and chemical water quality of the Rhine. A host of measures were significant in bringing about these improvements, including pollution reduction, river restoration, flood management, data and information exchange, early warning and alarm systems, and a certain level of alignment of measures and plans in the riparian countries. Close cooperation at a technical level and trust building between Parties were also considered crucial to success.

For further information: https://www.iksr.org/en/international-cooperation/rhine-2020/

Leverkusen Chemical Park by the Rhine River, Germany

Chapter 5

Dniester River, Ukraine



Activities related to the implementation of agreements and arrangement

Key messages

- **There is a widespread practice of adopting joint or coordinated water management plans, objectives, strategies and other similar instruments to support the implementation of agreements and arrangements. The adoption of river basin management plans is evident in the countries that are bound by or have committed to implementing the EU Water Framework Directive.**
- **Measures to protect the ecosystems of transboundary waters are commonly incorporated into national laws and policies and often incorporated into agreements and arrangements for transboundary waters.**
- **Data and information exchange takes place in nearly all the reported transboundary waters, although there are at least seven river and lake basins where it does not appear to take place at the basin level; and a shared database or platform is only present in the minority of cases.**
- **There has been a concerted effort to adopt joint monitoring and assessment of transboundary waters, although joint monitoring and assessment is reported to not take place in at least 32 river and lake basins.**
- **Provisions within the reported transboundary waters that do not appear to be widely implemented include the prevention of accidental pollution, mutual assistance in light extreme events, and public participation in transboundary water management.**

The template for reporting includes a series of questions that requests information on how certain activities related to the Convention are implemented within a particular basin, sub-basin or part thereof. These activities focus on the adoption of management plans and joint objectives, the protection of transboundary waters and their ecosystems, data and information exchange, joint monitoring and assessment, joint water quality standards, the prevention of accidental pollution and the impact of extreme events, and the participation of stakeholders in transboundary water management.

5.1 Management plans and joint objectives

What does the Convention say?

Article 2(6) of the Water Convention requires that riparian Parties "develop harmonized policies, programmes and strategies covering the relevant catchment areas, or parts thereof", which should aim to prevent, control and reduce transboundary impact and protect the ecosystems of those transboundary waters. More specifically, the Convention requires Parties to set water quality objectives and criteria for the purposes of preventing, controlling and reducing transboundary impact, which as noted above, is also a named task of any established joint body (Art. 3(3) and Art. 9(2)(e)).

What have countries reported?

Section II, question 4 of the reporting template asked countries to report on the existence of any joint or coordinated management plan (such as an action plan or a common strategy), or whether joint objectives had been set specifically on the transboundary waters that were subject to cooperation. Out of a total of 326 responses to this question 262 (or 80 per cent) confirmed that such a plan and/or objectives were in place.

Riparian Parties have reported a wide variety of action plans, declarations, guidance, objectives, principles and strategies on topics that include climate change adaptation, development, environmental protection, flood risk management, hydropower, navigation, river basin management, sedimentation management, sustainable development, and warning and alarm systems.

What can we learn from the responses?

The responses to question 4 suggest that there is a concerted effort by the Parties to implement their agreements and arrangements through plans, strategies, objectives and similar instruments. However, the way in which the question was formulated meant that it was not easy to ascertain whether a river basin management plan *or* joint objectives had been adopted. This ambiguity can be addressed in subsequent reporting by separating out the question on plans and objectives into two distinct questions: the first would ask whether a joint or coordinated management plan is in place, and the second, whether joint objectives have been set.

Box 5: Insights from practice: river basin management plans under the EU Water Framework Directive

Several national reports note that river basin management plans had been adopted pursuant to Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (Water Framework Directive). The Water Framework Directive obliges EU Member States to establish river basin management plans for all EU waters. For transboundary waters, EU Members States must coordinate with each other with the aim of developing a single international river basin management plan.

In addition to the European Union, 24 out of 42 Parties to the Water Convention are also Member States of the EU. Moreover, Albania, Montenegro, Serbia and the former Yugoslav Republic of Macedonia, as candidate countries to the EU, have also committed to transposing EU legislation into their national laws. Norway, as a member of the European Free Trade Association, has also committed to implementing the EU Water Framework Directive.

For further information: http://ec.europa.eu/environment/water/water-framework/index_en.html

Neckar river, a tributary of the Rhine, Germany

5.2 The protection of transboundary waters and their ecosystems

What does the Convention say?

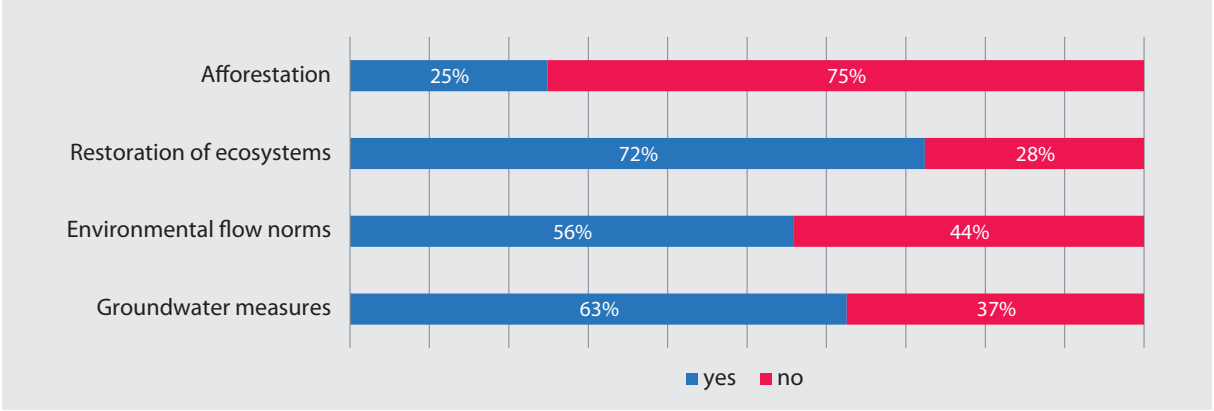
Article 2(2)(b) of the Water Convention requires Parties to take all appropriate measures to "ensure that transboundary waters are used with the aim of ecologically sound and rational water management, conservation of water resources and environmental protection". Additionally, pursuant to Article 3(1)(i), "Parties shall develop, adopt, implement and, as far as possible, render compatible relevant legal, administrative, economic, financial and technical measures, in order to ensure, inter alia, that [. . .] sustainable water-resources management, including the application of the ecosystems approach, is promoted".

What have countries reported?

In section I of the reporting template, countries were asked whether they applied the ecosystems approach (question 1(h)). The responses to this question are included here to compare alongside a similar question included in section II of the template concerning transboundary waters. The responses to question 1(h) suggests that 82 per cent of countries apply the ecosystem approach. Reporting Parties identified a number of ways in which the ecosystem approach is applied, including implementation of the Water Framework Directive (where applicable), incorporating ecosystem protection into environmental and water law and policies, river basin management plans, and the environmental impact assessment process.

In addition to national law and policy related to ecosystem protection, countries were asked in section II of the template how transboundary basins, rivers, lakes or aquifers are protected in the context of sustainable and rational water use (question 5). Figure 27 provides an overview of the response to this question.

Figure 27: Protection of ecosystems (Art. 2(2b)) and Art. 3(i) – based on all responses to section II, question 5



Countries were also asked if they had taken any other measures to protect ecosystems. In response to this question, countries identified the following additional measures: pollution prevention, liming to counter the effects of acidification, activities related to the implementation of the Water Framework Directive, the protection of coastal zones, reintroduction and protection of salmon populations, the permitting of water abstraction, environmental taxes, and protected areas legislation.

What can we learn from the responses?

The responses in section I of the template suggest that there is a widespread practice of incorporating the ecosystem approach into national law and policies. However, from the reporting template and the questions posed it was not possible to ascertain their completeness or their degree of implementation and effectiveness.

The responses in section II support the finding that an ecosystem approach is incorporated into the implementation of agreements and arrangements at the basin and sub-basin level. However, the extent to which key aspects of the ecosystem approach are incorporated into agreements or arrangements is not easy to understand from the responses. A more focused question related to ecosystem protection would assist in future reporting exercises.

5.3 Data and information exchange

What does the Convention say?

The requirement to exchange data and information is reflected in Article 6 of the Water Convention, which contains an overarching obligation upon Parties to "provide for the widest exchange of information, as early as possible, on issues covered by the provisions of this Convention." Article 6 is supplemented by a specific obligation in Article 13 for riparian Parties to "exchange reasonably available data, inter alia, on:

a. Environmental conditions of transboundary waters;
b. Experience gained in the application and operation of best available technology and results of research and development;
c. Emission and monitoring data;
d. Measures taken and planned to be taken to prevent, control and reduce transboundary impact;
e. Permits or regulations for waste-water discharges issued by the competent authority or appropriate body."

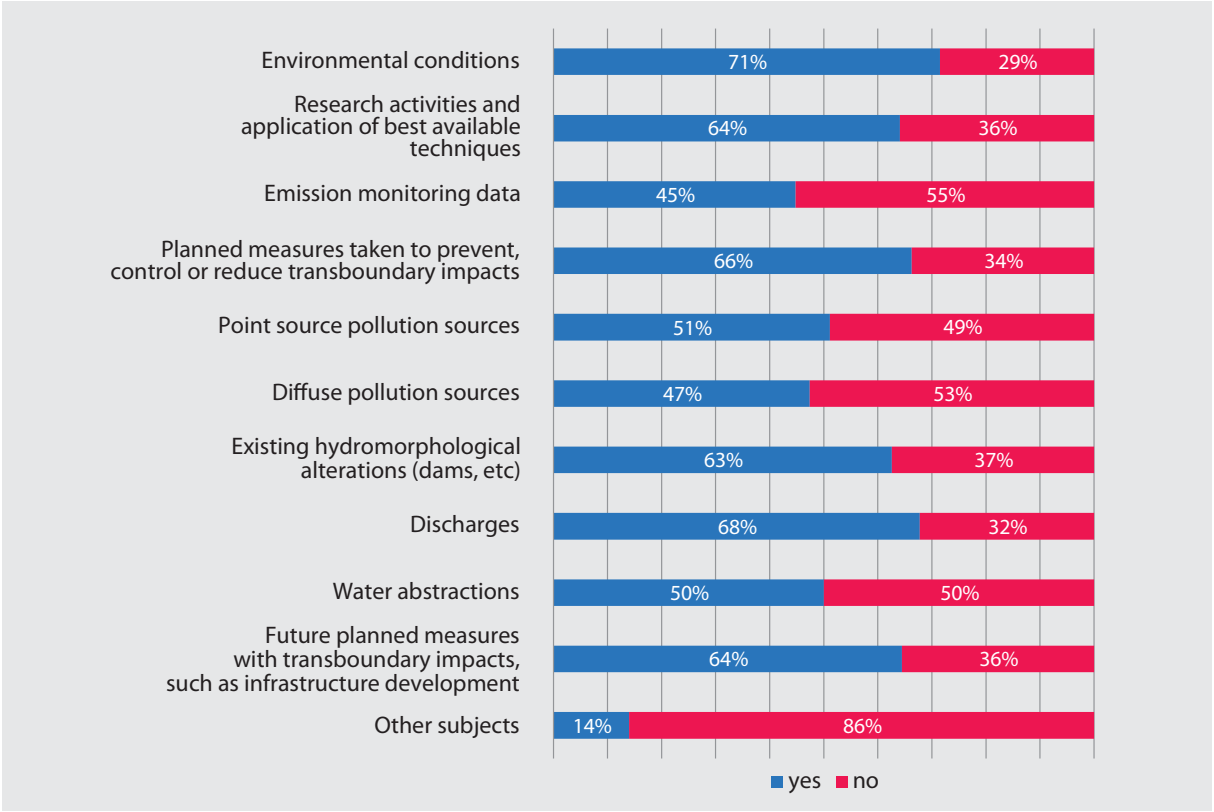
As noted previously, pursuant to Art. 9(2), joint bodies are also afforded an important role in the exchange of data and information between riparian Parties.

What have countries reported?

In order to assess the level of data and information exchange across riparian Parties, the reporting template asked whether the country in question exchanged data and information with other riparian States within a basin (section II, question 6(a)). Out of a total of 318 responses, 266 (or 84 per cent) confirmed that data and information was exchanged with other riparian States.

In addition to asking whether data and information was exchanged, the reporting template also asked countries to report on the subjects on which data and information was exchanged (section II, question 6(b)). Figure 28 provides an overview of the responses to this question.

Figure 28: Subjects on which information and data are exchanged (Art. 13) – based on all responses to section II, question 6(b)



Some reporting Parties also noted that they exchanged data and information related to flood protection, climate change scenarios, and political and strategic documents in preparation.

Countries were asked whether a shared database or information platform was in place by which data and information could be exchanged. Out of a total of 325 responses, only 77 (or 24 per cent) indicated that such a database or platform was in place.

Finally, Parties were asked to describe the main difficulties and challenges faced in relation to data exchange (section II, question 6(e)), as well as the main benefits of data exchange on transboundary waters (section II, question 6(f)). One of the main difficulties identified by reporting Parties related to the harmonization of national data management and processing systems, including issues concerning differing formats, methods, protocols and standards. Other difficulties highlighted included a lack of resources and capacities, insufficient monitoring networks, and there being no agreement or arrangement in place.

In terms of the benefits of data exchange on transboundary waters, a number of aspects were highlighted by the reporting Parties that included exchanges leading to: a mutual and better understanding of the basin, transparent and collaborative decision-making, assistance in early warning of extreme events, better forecasting and modelling of the basin, and more efficient water management at the national level.

What can we learn from the responses?

The responses suggest that there is a widespread practice of data and information exchange between the Parties. However, they also reveal that despite the obligation in Article 13 to exchange data and information, there are at least seven river and lake basins where riparian Parties appear not to exchange data and information among themselves (the Bolshoy Uzen/Karaozen,[53] Kura,[54] Malyi Uzen/Saryozen[55], Pregel[56], Oiapoque/Oyupock,[57] Prohladnaja/Sweiza[58] and the Kigach Channel (Volga) [59] river basins). However, it should be note that in the case of the Kura River Basin,[60] data and information is exchanged at the sub-basin level (the Aras/Araks River Basin[61]), and both the Kura and the Oiapoque/Oyupock River Basins are shared with non-parties to the Convention. In five additional river and lake basins, different responses between Parties meant that it was not possible to ascertain whether data and information exchange took place.

In terms of the subjects of data and information exchanged, the responses suggest that exchanges took place across a wide range of subjects, the most common of which was data and information on environmental conditions. However, one limitation of the analysis is the inability to ascertain why data and information on certain subjects had not been exchanged. For example, where no data and information was exchanged on planned measures, it is unclear whether this was due to possible reluctance to exchange data and information, or because no measures to effect such an exchange had been planned.

A further important finding that was identified by several Parties pertained to the difficulties in the harmonization of data and information despite the requirement in Article 11(4) of the Water Convention stipulating that "riparian Parties shall harmonize rules for the setting up and operation of monitoring programmes, measurement systems, devices, analytical techniques, data processing and evaluation procedures, and methods for the regulation of pollutants discharged." A shared database or information platform, which might assist in harmonizing data, appeared to be lacking in many cases.

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53 The Bolshoy and Maly Uzen River Basin is shared between Kazakhstan and the Russian Federation.

54 For a list of countries sharing the Kura River Basin see *supra* note 23.

55 The Maly Uzen/ Saryozen River Basin is shared between Kazakhstan and the Russian Federation.

56 For a list of countries sharing the Pregel River Basin see *supra* note 26.

57 For a list of countries sharing the Oiapoque/Oyupock River Basin see *supra* note 30.

58 For a list of countries sharing the Prohladnaia/Sweiza River Basin see *supra* note 31.

59 The Kigach Channel is shared between Kazakhstan and the Russian Federation.

60 For a list of countries sharing the Kura River Basin see *supra* note 23.

61 The Aras/Araks River Basin is shared between Armenia, Azerbaijan, Islamic Republic of Iran and Turkey.

Finally, an analysis of the three questions related to data and information, namely on the topics or subjects of cooperation cited in an agreement or arrangements (section II, question 1(d)), the tasks and activities of a joint body (section II, question 3(e)), and whether countries exchanged data and information with other riparian States in a particular basin (section II, question 6), suggests that there are at least four river and lake basins (Bolshoy Uzen/Karaozen,[62] Malyi Uzen/Saryozen[63], Pregel[64] and Kigach Channel (Volga)[65] river basins), where no data and information exchange takes place even though such an exchange is provided for in the relevant agreement or arrangement, and in the tasks of the relevant joint body.

5.4 Joint monitoring and assessment

What does the Convention say?

Article 11(1) of the Water Convention provides that "Riparian Parties shall establish and implement joint programmes for monitoring the conditions of transboundary waters".[66] This requirement is supplemented by a commitment that joint bodies undertake to "elaborate joint monitoring programmes concerning water quality and quantity" (Art. 9(2)(b)).

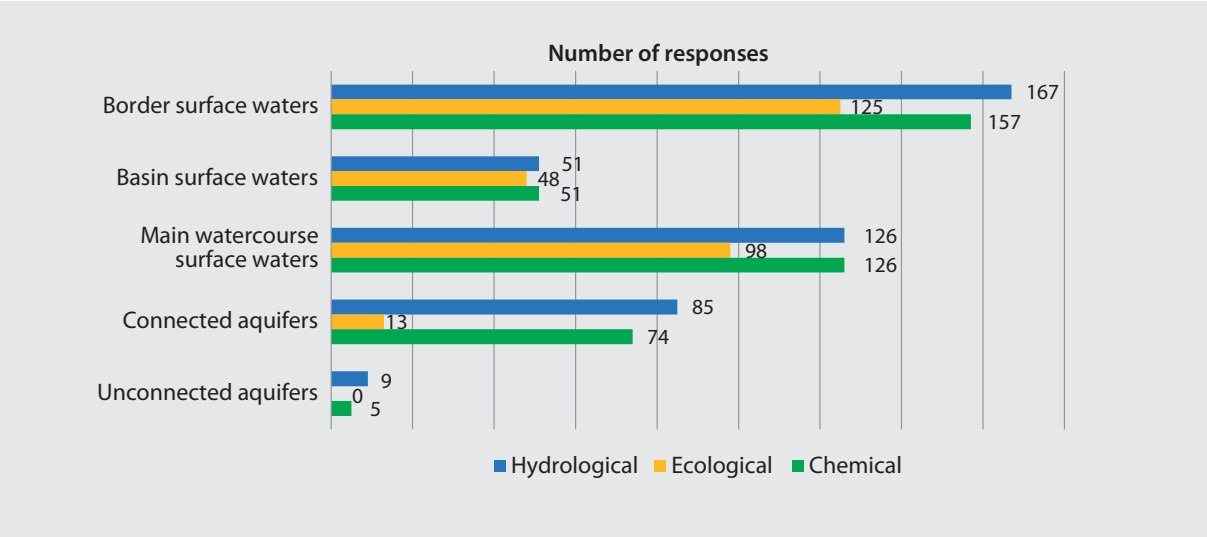
Additionally, Article 11(3) requires that "Riparian Parties shall, at regular intervals, carry out joint or coordinated assessments of the conditions of transboundary waters and the effectiveness of measures taken for the prevention, control and reduction of transboundary impact."

What have countries reported?

Section II, question 7(a) of the reporting template asked countries to report on whether riparian States carry out joint monitoring in the transboundary basin, river, lake or aquifer in question. Out of the total of 331 responses to this question, 225 (or 68 per cent) stated that joint monitoring does take place.

Countries that confirmed the occurrence of joint monitoring were then asked whether joint monitoring covered border surface waters, surface waters in the entire basin, surface waters on the main watercourse, connected aquifers (or groundwaters), or unconnected aquifers (or groundwaters). Countries were also asked which aspects were monitored (hydrological, ecological or chemical). Figure 29 provides an overview of the responses to this question.

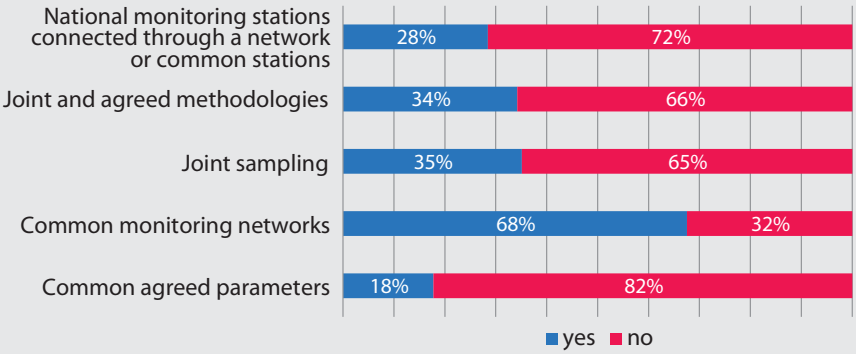
Figure 29: What does joint monitoring cover (Art. 11) - based on all responses to section II, question 7(a)



[62] For a list of countries sharing the Bolshoy and Maly Uzen River Basin see *supra* note 53.
[63] For a list of countries sharing the Malyi Uzen/Saryozen River Basin see *supra* note 55.
[64] For a list of countries sharing the Pregel River Basin see *supra* note 26.
[65] For a list of countries sharing the Kigach Channel see *supra* note 59.
[66] See also Art. 4, which provides that "The Parties shall establish programmes for monitoring the conditions of transboundary waters."

In addition to determining the extent of joint monitoring, section II, question 7(b) asked countries to report on how joint monitoring was carried out. Figure 30 provides an overview of the responses to this question.

Figure 30: If joint monitoring is carried out, how is this done? (Art. 11(1)) – based on all responses to section II, question 7(b)



Finally, countries were asked to report on the main achievements and any difficulties they experienced in relation to joint monitoring (section II, questions 7(c) and (d)). Some of the main achievements of joint monitoring listed by reporting Parties included the ability: to develop long-term trend analysis; to produce a shared understanding of trends, pressures and conditions of transboundary waters; to allow for early detection of potentially harmful pollutants; to offer the availability of real time online data; to harmonize monitoring methods; and to create a common view on the status of transboundary waters. Difficulties identified by the reporting Parties included: harmonizing parameters and methodologies; ensuring for the compatibility of data; the provision of real-time data; and a lack of resources.

Section II, question 8 of the reporting template asked riparian States whether they carried out joint assessments of the transboundary basin, river, lake or aquifer in question. Out of a total of 303 responses, 227 (or 76 per cent) indicated that joint assessments do take place.

What can we learn from the responses?

The responses on joint monitoring and assessment indicate that there has been a concerted effort to implement Article 11 of the Water Convention. However, Parties have also reported that in at least 32 basins joint monitoring does not take place; and in a further 18 basins it was not possible to ascertain whether or not it took place due to different responses by reporting Parties. In relation to joint assessment, it was also reported that in at least 32 basins it does not take place; although in a further 19 basins different responses to the same question by reporting Parties meant that it was not possible to ascertain whether joint assessment took place.

It should also be noted that joint monitoring and assessment is supplemented by monitoring and assessment efforts at the level of the Convention. Two major assessments have provided a comprehensive overview of the status of transboundary waters in the European and Asian regions covered by the ECE. The *First Assessment of Transboundary Rivers, Lakes and Groundwaters*, which was published in 2007, offered the first in-depth study of transboundary waters across the ECE region.[67] The *Second Assessment of Transboundary Rivers, Lakes and Groundwaters*, published in 2011, builds on the results and lessons learned from the first assessment, but with a broader scope encompassing integrated water resources management, groundwater, ecosystem protection and climate change, and legal, institutional and socioeconomic issues.[68]

[67] ECE, First Assessment of Transboundary Rivers, Lakes and Groundwaters, New York and Geneva, 2007.

[68] ECE, Second Assessment of Transboundary Rivers, Lakes and Groundwaters, New York and Geneva, 2011.

5.5 Joint water quality standards

What does the Convention say?

Article 3(3) of the Water Convention requires that "each Party shall define, where appropriate, water-quality objectives and adopt water-quality criteria for the purpose of preventing, controlling and reducing transboundary impact."[69] Article 9(2)(e) goes further by calling on the joint bodies "to elaborate joint water-quality objectives and criteria [. . .] and, where necessary, propose relevant measures for maintaining and, where necessary, improving the existing water quality."

What have countries reported?

Section II, question 9 of the reporting template asked whether riparian Parties agreed to use joint water quality standards. Out of a total of 306 responses to this question, only 173 (or 57 per cent) indicated that joint water quality standards had been agreed. If joint water quality standards had been adopted, countries were then asked to state the level of standards used, i.e. international, regional or national standards. Responses to this question suggest that standards were mainly national and, where applicable, derived from European Union legislation.

What can we learn from the responses?

Despite Article 3(3) obliging Parties to develop water quality objectives and criteria, the responses to question 9 suggest that this is not widely practised. This finding aligns with the observation that only 57 per cent of responses indicated that the elaboration of joint water quality standards is a task of the relevant joint body, and 50 per cent of responses indicated it as a topic of cooperation covered by the relevant agreement or arrangement.

Joint standards were reported to not be in place within at least 15 basins reported. However, in the case of the Aral Sea Basin[70], joint standards were reported to apply at the sub-basin level (the Syr-Darya River Basin[71]). In addition, it was not possible to ascertain whether or not joint standards were in place for 25 river and lake basins due to different responses from riparian Parties to the same question, or because no response was provided for the question on joint water quality standards.

In eight river and lake basins, the elaboration of joint water quality standards is provided for within the relevant agreements or arrangements and the tasks of joint bodies, but was reported to not be implemented at the basin level.

5.6 Prevention of accidental pollution and the impact of extreme events

What does the Convention say?

The Water Convention requires that riparian Parties take all appropriate measures so that "the risk of accidental pollution is minimized" (Art. 3(1)(l)). More specifically, "Riparian Parties shall without delay inform each other about any critical situation that may have transboundary impact … [and] set up, where appropriate, and operate coordinated or joint communication, warning and alarm systems" (Art. 14).[72]

In addition to establishing warning and alarm systems, a further requirement of the Water Convention states that in a critical situation "Riparian Parties shall provide mutual assistance upon request" (Art. 15). In this regard, procedures for mutual assistance should be developed.

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69 See also Annex III of the Water Convention, which provides guidance for establishing water quality objectives and criteria.

70 For a list of countries sharing the Aral Sea Basin see *supra* note 19.

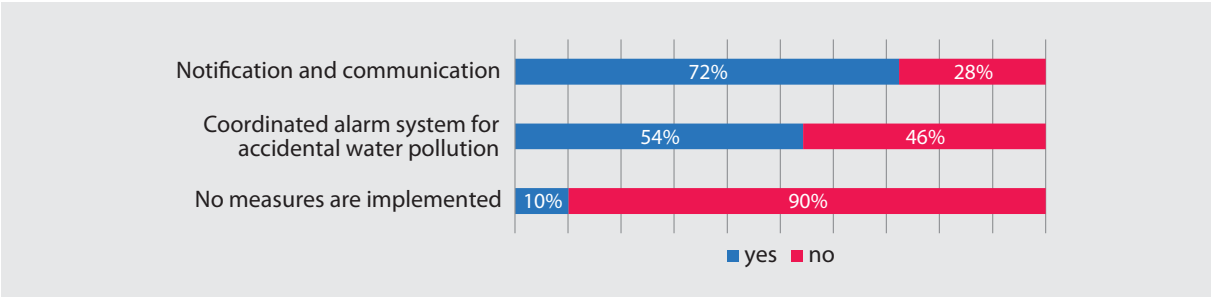
71 For a list of countries sharing the Syr Darya River Basin see *supra* note 42.

72 See also the Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters, 21 May 2003, which has been signed by 24 countries.

What have countries reported?

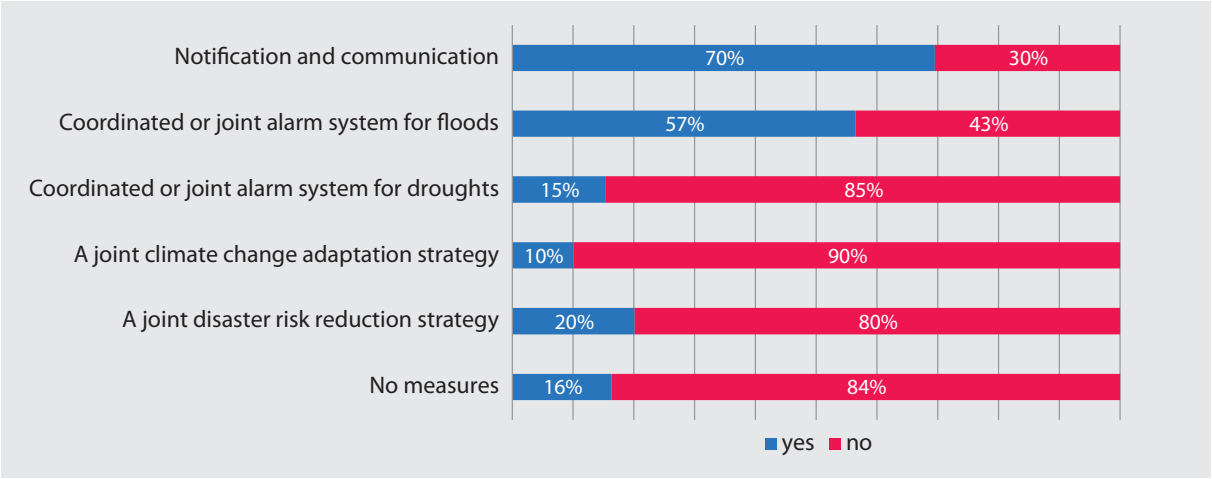
Section II, question 10 of the reporting template asked whether measures had been implemented to limit the transboundary impact of accidental pollution, and if so, what were the measures in place. Figure 31 provides an overview of the responses, and highlights notification and communication as the most common response.

Figure 31: Measures implemented to prevent or limit the transboundary impact of accidental pollution (Art. 14) – based on all responses for section II, question 10



Section II, question 11 asked countries to report on the measures implemented to prevent or limit the transboundary impact of extreme weather events. Figure 32 provides a summary of their responses.

Figure 32: Measures implemented to prevent or limit the transboundary impact of extreme weather events (Art. 14) – based on all responses for section II, question 11



The responses suggest that notification and communication measures and coordinated or joint alarm systems for floods are the most common adopted measures to prevent or limit the impact of extreme weather events.

Finally, in section II, question 12 asked countries to report on whether procedures were in place for mutual assistance in case of a critical situation. Out of a total of 317 responses to this question, 153 (or 48 per cent) affirmed that such procedures were in place.

What can we learn from the responses?

An analysis of question 10 at the basin level reveals that there is a significant number of basins where measures are not implemented to prevent or limit the transboundary impact of accidental pollution (Figure 33).

Box 6: Insights from practice: developing a climate change adaptation strategy for the Neman River Basin

Under the programme of work of the Water Convention, and with support from the Environment and Security Initiative and the United Nations Development Programme (UNDP), a project on River Basin Management and Climate Change Adaptation in the Neman River Basin took place between 2012–2014. One of the key outcomes of the project was the development of the Strategic Framework for Adaptation to Climate Change in the Neman River Basin. Based on an assessment of possible climate impact, this framework sets out a list of potential collective measures that can be adopted by riparian countries to best address climate variability.

For further information: ECE and UNDP, *The Strategic Framework for Adaptation to Climate Change in the Neman River Basin*, 2015. Available from www.unece.org/index.php?id=45193

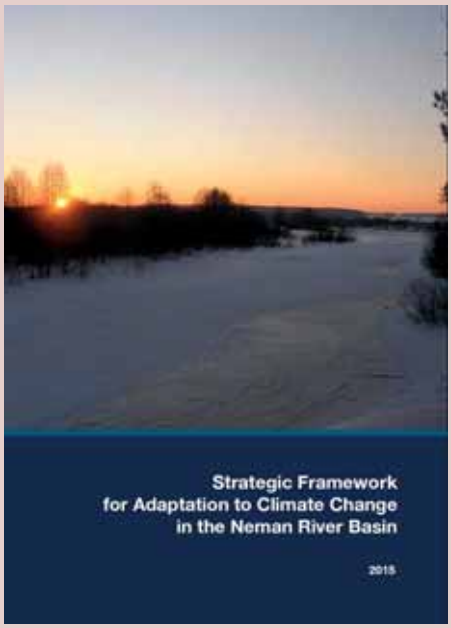


Figure 33: Percentage of basins where measures are implemented to prevent or limit the transboundary impact of accidental pollution (Art. 14) – based on consolidated basin level responses to section II, question 10

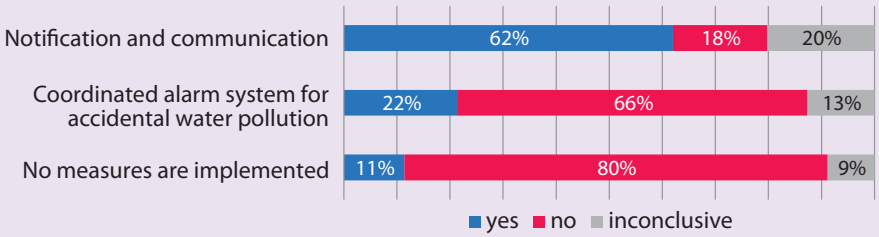
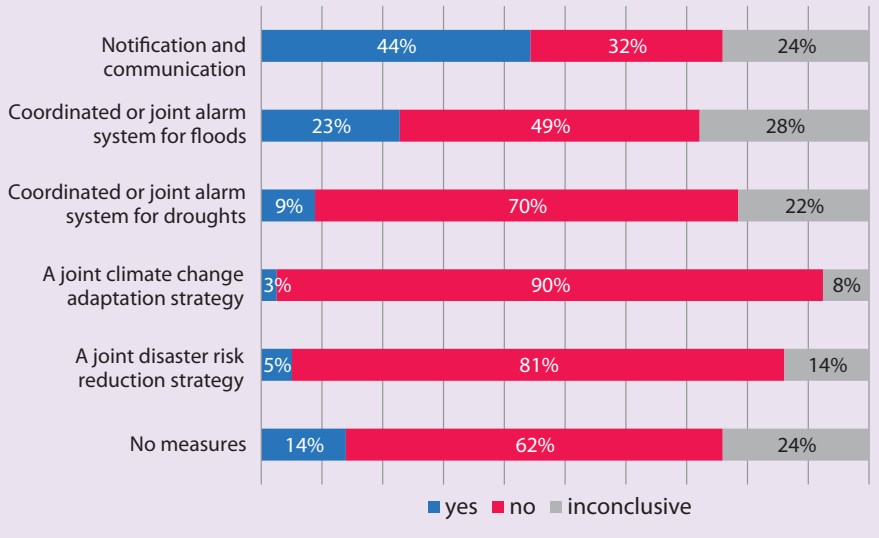


Figure 34: Percentage of basins where measures are implemented to prevent or limit the transboundary impact of extreme weather events (Art. 14) – based on consolidated basin level responses for section II, question 11



In relation to extreme weather events, figure 34 provides an overview of the basins where measures are implemented to prevent or limit the transboundary impact of extreme weather events. Such an analysis suggest that many basins lack such measures.

This analysis would suggest that there is a need to strengthen the implementation of the Water Convention in these areas, especially given the likely impacts of climate change and in light of the *Guidance on Water and Adaptation to Climate Change* and associated activities under the Convention.[73]

5.7 Stakeholder participation in transboundary water management

What does the Convention say?

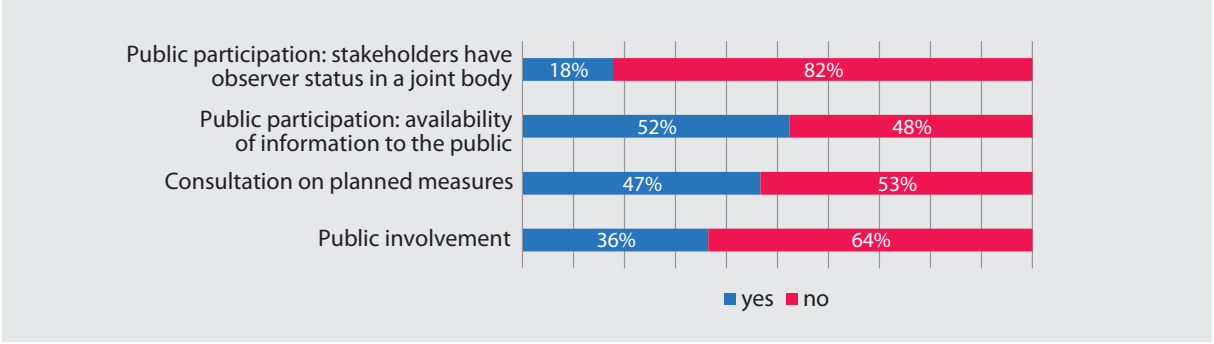
Stakeholder participation is not directly provided for in the Water Convention, although there is a requirement that "Riparian Parties shall ensure that information on the conditions of transboundary waters, measures taken or planned to be taken to prevent, control and reduce transboundary impact, and the effectiveness of those measures, is made available to the public" (Art. 16). Additionally, 39 of the 42 Parties to the Water Convention are also Parties to the Convention on Access to Information, Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), which provides more detailed procedural obligations in relation to stakeholder participation.

What have countries reported?

Countries were asked to report on whether "public or relevant stakeholders" were involved in transboundary water management (section II, question 13). Out of a total of 329 responses to this question, 179 (or 54 per cent) indicated that public or relevant stakeholders were involved in transboundary water management.

Where countries responded that public or relevant stakeholders were involved in transboundary water management, they were also asked about the type of participation that this had taken. Figure 35 provides an overview of the responses to this question.

Figure 35: Type of participation taking place (Art. 16) – based on all responses to section II, question 13



Additionally, reporting Parties were asked whether any existing shared database or information platform was made publicly available (Question 6(d)). Out of a total of 77 responses stating that a shared database was in place, only 58 responses confirmed that the database was publicly available.

What can we learn from the responses?

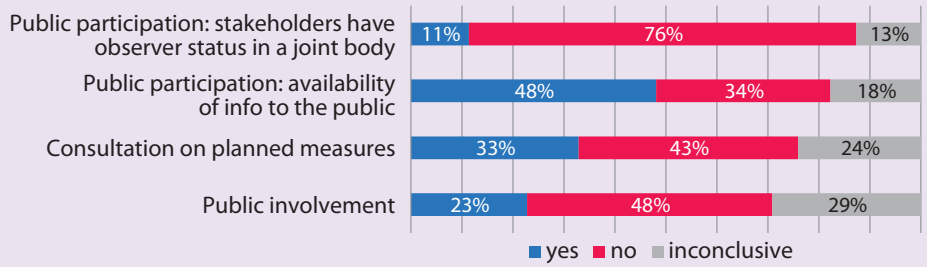
Despite the requirement in Article 16 of the Water Convention to provide the public with information on transboundary waters, and the fact that 93 per cent of Parties to the Water Convention are also Party to the Aarhus Convention, it would appear from the responses that the involvement of the public and other relevant stakeholders is limited. At the basin level, public or stakeholder involvement in transboundary water management was reported to be absent in at least 35 basins; and in 13 additional basins it was not

[73] ECE, Guidance on Water and Adaptation to Climate Change, New York and Geneva, 2009 (UN Doc. ECE/MP.WAT/30).

possible to ascertain whether or not such involvement took place because of different responses from the riparian Parties to the same question.

Where it was confirmed that stakeholder involvement had taken place, reporting Parties provided an indication of the type of participation that occurred. Figure 36 gives an overview of participation at the basin level and shows that the provision of public information is the most common type of participation.

Figure 36: Type of participation taking place (Art. 16) – based on consolidated basin level responses for section II, question 13



Box 7: Insights from practice: observers in the International Commission for the Protection of the Danube River

The International Commission for the Protection of the Danube River (ICPDR) provides the opportunity for organizations, including non-governmental organizations, private sector companies and inter-governmental organizations, to become observers to the ICPDR. Organizations that currently have observer status include the Black Sea Commission, Carpathian Convention, Central Dredging Association, Danube Competence Center, Danube Civil Society Forum, Danube Commission, Danube Environmental Forum, Danubeparks, Danube Tourist Commission, European Anglers Alliance, European Barge Union, European Water Association, Friends of Nature International, Global Water Partnership, International Association for Danube Research, International Association of Water Supply Companies in the Danube River Catchment Area, International Hydrological Programme of UNESCO, International Sava River Basin Commission, Ramsar Convention on Wetlands, Regional Environmental Center for Central and Eastern Europe, VGB PowerTech e.V., via donau, and the World Wide Fund for Nature – Danube-Carpathian Programme.

For further information: https://www.icpdr.org/main/icpdr/observers

Pelican colony in the Danube Delta, Romania

Lake Ohrid shared by Albania and the former Yugoslav Republic of Macedonia

Chapter 6

Rhine River, Borderland between Austria and Switzerland

General observations on the implementation of the Water Convention

6.1 Main challenges in implementing the Convention and transboundary water cooperation

In the final section of the template (section IV, question 1), Parties were asked to report on the main challenges they faced both in the implementation of the Convention and on cooperation on transboundary waters. Reporting Parties identified several challenges and difficulties, which can be clustered into several areas, as outlined below.

The negotiation and adoption of agreements and arrangements for transboundary waters. Reporting Parties noted that it was sometimes difficult to negotiate and adopt agreements and arrangements, or update existing ones, with their riparian neighbours. This was identified as particularly challenging for Parties outside the European Union and where other riparian Parties were not Party to the Water Convention. Both the delineation of aquifers and the entering into agreements or arrangements related to transboundary aquifers were also identified as challenges. However, it was also reported that formal agreements or arrangements proved to be effective mechanisms in addressing any challenges and difficulties.

Lack of harmonized governance and water management systems related to transboundary waters. A lack of harmonized systems was identified by numerous reporting Parties as causing difficulties. One difficulty identified related to the different ways in which water resources were managed at the national level. This resulted, for example, in differing norms for water pollution control and water quality classification systems. Another difficulty related to the lack of harmonized monitoring and assessment systems, and difficulties faced in countries employing different data gathering methodologies and procedures. A lack of harmonized governance systems was also highlighted by the reporting Parties as a key challenge. For instance, differences in national administrative systems appeared to cause difficulties in joint planning because of the different ways in which various sectors at national and local levels were involved in transboundary water management, as well as the different procedures and timeframes by which plans and projects were approved. The difficulty of harmonizing systems between EU and non-EU countries was also highlighted as a particular challenge. In addition, the translation of documents and communication with stakeholders in different national and sometimes local languages were highlighted as challenges.

Lack of resources to implement transboundary water management. Several reporting Parties commented that a lack of resources caused difficulties (including frequent institutional reorganization and staff turnover). Resources that were mentioned included personnel and expertise, finances and decreasing budgets, and technical capacity.

Engaging stakeholders in transboundary water management. Raising awareness of the importance, issues and benefits of transboundary cooperation among stakeholders at the national level was identified as a challenge. Additionally, ensuring that all relevant authorities and other stakeholders were appropriately engaged in transboundary water management was mentioned as a challenge.

Climate change, water availability and water quality issues. Changing hydrological patterns due to climate change and the need for risk-based approaches to flood and drought management were highlighted as challenges faced by riparian Parties. A further challenge that was identified was how to reach good ecological status for all transboundary waters in line with the EU Water Framework Directive. Collaboration between riparian Parties to improve river regulation and protect and improve the habitats of migratory fish was also considered a challenge.

6.2 Main achievements in implementing the Convention and transboundary water cooperation

The final section of the template (section IV, question 2) asked countries to highlight the main achievements that resulted from the implementation of the Convention and transboundary water cooperation. The responses from reporting Parties related to the main achievements when implementing the Water Convention and fostering transboundary water cooperation can be clustered around several key areas, as outlined below.

Better management of transboundary water resources. Reporting Parties highlighted a wide range of outcome related achievements that had arisen as a result of transboundary water cooperation. Such achievements included improvements in water quality, the rehabilitation of fish populations, the establishment of nature reserves and eco-corridors, improved ecosystem health, mitigating negative impacts of floods and droughts, better control and a reduction in pollution, an introduction of water saving technologies, better monitoring and exchange of data and information, and greater involvement of local populations in transboundary water management.

Providing a platform for the development of agreements and arrangements and a frame of reference for their implementation. Several Parties highlighted how the Water Convention had served as a important platform to negotiate bilateral, sub-basin and basin agreements and arrangements with neighbouring riparian countries. Having a common reference by which to implement agreements and arrangements also proved valuable. Accession to the Water Convention was noted as an important step in advancing transboundary water cooperation.

Exchanging knowledge and experience. The ability to exchange knowledge and experience on transboundary water management issues at multiple levels was identified as a key achievement in the implementation of the Water Convention. Regular meetings both at the basin level and in working groups and meetings of the Water Convention were considered to have built trust among riparian Parties, allowing them to develop a common understanding of challenges and solutions. It was noted that such interaction also proved to be a useful means by which to develop a network of expertise, and to allow smaller countries the opportunity to draw upon a wider community of experts.

Development of plans, programmes and projects. A key achievement in implementing the Water Convention identified by Parties was that it allowed for the development of joint plans, programmes and projects across a range of topics. Such plans, programmes and projects included the development of river basin management plans, joint hydropower operations, and climate adaptation strategies. It was also observed that such achievements were not limited to the transboundary level, but could act as a catalyst for realizing the necessary reforms at a national level and across sectors, e.g. sustainable regional economic development or ecotourism.

Uvac River shared by Bosnia and Herzegovina and Serbia within the Danube River Basin

Tejo/Tajo river shared by Portugal and Spain at Monfragüe National Park

Annexes

Annex I – Table of Parties that submitted national reports and their date of submission

Country	Template received
Albania	30-Jun-17
Austria	15-May-17
Azerbaijan	26-May-17
Belarus	15-May-17
Belgium	29-Jun-17
Bosnia and Herzegovina	17-May-17
Bulgaria	18-May-17
Croatia	19-May-17
Czech Republic	15-May-17
Denmark	no
Estonia	17-May-17
Finland	15-May-17
France	09-Jun-17
Germany	12-May-17
Greece	24-May-17
Hungary	15-May-17
Italy	29-May-17
Kazakhstan	29-May-17
Latvia	16-May-17
Liechtenstein	no
Lithuania	02-Jun-17
Luxembourg	12-May-17
Montenegro	24-Apr-17
Netherlands	15-May-17
Norway	11-May-17
Poland	29-May-17
Portugal	20-Jun-17
Republic of Moldova	31-May-17
Romania	15-May-17
Russian Federation	28-Aug-17
Serbia	17-Sep-17
Slovakia	15-May-17
Slovenia	17-Oct-17
Spain	27-Feb-17
Sweden	28-Jun-17
Switzerland	23-May-17
The former Yugoslav Republic of Macedonia	19-May-17
Turkmenistan	12-Oct-17
Ukraine	26-Jan-18
Uzbekistan	17-May-17

Annex II – Table of reported transboundary river and lake basins and sub-basins

Basin/sub-basin Hyphen (-) used to show sub-basins, and double (--) or triple (---) hyphen for basin units below sub-basins	**Recipient**	**Lakes in the Basin**	**Riparian countries**[1,2]	**Parties that reported on the Basin/sub-basins**[3]
DRAINAGE BASINS OF THE WHITE SEA, BARENTS SEA AND KARA SEA				
Oulanka River Basin[4]	White Sea		**FI, RU**	**FI, RU**
Tuloma River Basin	Kola Fjord > Barents Sea		**FI, RU**	**FI, RU**
Jakobselv/Voryema River Basin	Barents Sea		**NO, RU**	**RU**
Paatsjoki/Pasvik River Basin	Barents Sea	Lake Inari	**FI, NO, RU**	**FI, NO, RU**
Näätämö/Neiden River Basin	Barents Sea		**FI, NO, RU**	**FI**
Teno/Tana River Basin	Barents Sea		**FI, NO**	**FI, NO**
Uutuanjoki River Basin	Barents Sea		**FI, NO**	**FI**
Yenisey	Kara Sea		MN**, RU**	*not reported*
- Selenga sub-basin	Yenisey		MN**, RU**	*not reported*
Ob River Basin[5]	Kara Sea		CN, **KZ,** MN, **RU**	**KZ**
- Irtysh/Ertis sub-basin	Ob		CN, **KZ,** MN, **RU**	**KZ**
-- Tobol sub-basin	Irtysh		**KZ, RU**	**KZ**
-- Ishim/Esil sub-basin	Irtysh		**KZ, RU**	**KZ**
Vienan Kemi River basin[6]	White Sea		**FI, RU**	**FI, RU**
DRAINAGE BASINS OF THE SEA OF OKHOTSK AND SEA OF JAPAN				
Amur River Basin	Sea of Okhotsk		CN, MN, **RU**	*not reported*
- Argun/Hailaer sub-basin	Amur		CN, **RU**	*not reported*
- Ussuri/Wusuli sub-basin	Amur	Lake Khanka/Xingkai	CN, **RU**	*not reported*
Sujfun/Razdolnaya River Basin	Sea of Japan		CN, **RU**	*not reported*
Tumen/Tumannaya River Basin	Sea of Japan		CN, KP, **RU**	*not reported*

1 The country codes in bold indicate Parties to the Water Convention.

2 Afghanistan (AF); Albania (AL); Andorra (AD); Armenia (AM); Austria (AU); Azerbaijan (AZ); Belarus (BY); Belgium (BU); Bosnia and Herzegovina (BA); Bulgaria (BG); China (CN); Croatia (HR); Czech Republic (CZ); Denmark (DK); Estonia (EE); Finland (FI); France (FR); Georgia (GE); Germany (DE); Greece (GR); Hungary (HU); Islamic Republic of Iran (IR); Iraq (IQ); Ireland (IE); Italy (IT); Kazakhstan (KZ); Democratic People's Republic of Korea (KP); Kyrgyzstan (KG); Latvia (LV); Liechtenstein (LI); Lithuania (LT); Luxembourg (LU); Mongolia (MN); Montenegro (ME); Netherlands (NL); Norway (NO); Poland (PL); Portugal (PT); Republic of Moldova (MD); Romania (RO); Russian Federation (RU); Serbia (RS); Slovakia (SK); Slovenia (SI); Spain (ES); Sweden (SE); Switzerland (CH); Tajikistan (TJ); The former Yugoslav Republic of Macedonia (MK); Turkey (TR); Turkmenistan (TM); Ukraine (UA); United Kingdom of Great Britain and Northern Ireland (UK); Uzbekistan (UZ).

3 The basins listed as 'not reported' were indicated in the Second Assessment but not reported by the Parties in the Pilot Reporting Exercise.

4 Reported implicitly as the relevant agreement or arrangement covers all transboundary waters shared by the Parties.

5 Only reported at sub-basin level.

6 Vienan Kemi is not explicitly included in the Second Assessment but it is covered by the agreement on transboundary waters between Finland and Russia.

Basin/sub-basin Hyphen (-) used to show sub-basins, and double (--) or triple (---) hyphen for basin units below sub-basins	**Recipient**	**Lakes in the Basin**	**Riparian countries**[1,2]	**Parties that reported on the Basin/sub-basins**[3]
DRAINAGE BASINS OF THE ARAL SEA AND OTHER TRANSBOUNDARY WATERS IN CENTRAL ASIA				
Aral Sea			AF, KG, TJ, **TM, UZ**	**UZ**
- Amu Darya River Basin	Aral Sea	Aral Sea	AF, KG, TJ, **TM, UZ**	**TM, UZ**
-- Surkhan Darya sub-basin	Amu Darya		TJ, **UZ**	**UZ**
-- Kafirnigan sub-basin	Amu Darya		TJ, **UZ**	**UZ**
-- Pyanj sub-basin	Amu Darya		AF, TJ	*not reported*
-- Vakhsh sub-basin	Amu Darya		KG, TJ	*not reported*
Zeravshan River Basin	Desert sink		TJ, **UZ**	*not reported*
- Syr Darya River Basin	Aral Sea		**KZ,** KG, TJ, **UZ**	**KZ, UZ**
-- Naryn sub-basin	Syr Darya		KG, **UZ**	**UZ**
-- Kara Darya sub-basin	Syr Darya		KG, **UZ**	**UZ**
-- Chirchik sub-basin	Syr Darya		**KZ,** KG, **UZ**	**KZ, UZ**
--- Chatkal sub-basin	Chirchik		KG, **UZ**	**UZ**
Chu River Basin	Desert sink		**KZ,** KG	**KZ**
Talas River Basin	Desert sink		**KZ,** KG	**KZ**
Assa River Basin[7]	Desert sink		**KZ,** KG	*not reported*
Ili River Basin	Lake Balkhash	Lake Balkhash	CN, **KZ**	**KZ**
Murgab River Basin	Desert sink		AF, **TM**	**TM**
Tejen/Harirud River Basin	Desert sink		AF, IR, **TM**	**TM**
DRAINAGE BASINS OF THE CASPIAN SEA				
Ural River Basin	Caspian Sea		**KZ, RU**	**KZ, RU**
Atrek/Atrak River Basin	Caspian Sea		IR, **TM**	**TM**
Kura River Basin	Caspian Sea	Lake Jandari, Lake Kartsakhi/Aktaş Gölü	AM, **AZ,** GE, IR, TR	**AZ**
- Iori/Gabirri sub-basin	Kura		**AZ**, GE	**AZ**
- Alazani/Ganyh sub-basin	Kura		**AZ**, GE	**AZ**
- Agstev/Agstafachai sub-basin	Kura	Akhuryan/Arpaçay Reservoir	AM, **AZ**	**AZ**
- Potskhovi/Posof sub-basin	Kura		GE, TR	*not reported*
- Ktsia-Khrami sub-basin	Kura		AM, **AZ,** GE	**AZ**

Basin/sub-basin Hyphen (-) used to show sub-basins, and double (--) or triple (---) hyphen for basin units below sub-basins	Recipient	Lakes in the Basin	Riparian countries[1,2]	Parties that reported on the Basin/sub-basins[3]
-- Debed/Debeda sub-basin	Ktsia-Khrami		AM, GE	*not reported*
- Araks/Aras sub-basin	Kura	Araks Govsaghynyn Reservoir	AM, **AZ,** IR, TR	**AZ**
-- Akhuryan/Arpaçay sub-basin	Aras/Araks		AM, TR	**AZ**
-- Arpa sub-basin	Aras/Araks		AM, **AZ**	**AZ**
-- Vorotan/Bargushad sub-basin	Aras/Araks		AM, **AZ**	**AZ**
-- Voghji/Ohchu sub-basin	Aras/Araks		AM, **AZ**	**AZ**
-- Sarisu/Sari Su sub-basin	Aras/Araks		TR, IR	*not reported*
Astarachay River Basin	Caspian Sea		**AZ,** IR	**AZ**
Samur River Basin	Caspian Sea		**AZ, RU**	**AZ, RU**
Sulak River Basin	Caspian Sea		GE, **RU**	*not reported*
- Andis-Koisu sub-basin	Sulak		GE, **RU**	*not reported*
Terek River Basin	Caspian Sea		GE, **RU**	*not reported*
Malyi Uzen/Saryozen River Basin	Kamysh-Samarsk Lakes	Lakes of Kamysh-Samarsk	**KZ, RU**	**RU**
Bolshoy Uzen/ Karaozen River Basin	Kamysh-Samarsk Lakes		**KZ, RU**	**RU**
- Kigach channel	Volga River Basin		**KZ, RU**	**RU**
DRAINAGE BASINS OF THE BLACK SEA				
Rezovska/Multudere River Basin	Black Sea		**BG,** TR	*not reported*
Danube River Basin	Black Sea	Reservoirs Iron Gate I and Iron Gate II, Lake Neusiedl	**AL, AT, BA, BG, HR, CZ, DE, HU, IT, ME, PL, MD, RO, RS, SI, SK, CH, UA**	**AT, BA, BG, HR, CZ, DE, HU, PL, MD, RO, RS, SI, SK, UA**
- Lech sub-basin	Danube		**AT, DE**	**AT, DE**
- Inn sub-basin	Danube		**AT, DE, IT, CH**	**AT, DE**
- Morava and Dyje sub-basins	Danube		**AT, CZ, SK**	**AT, CZ, SK**
- Raab/Rába sub-basin	Danube		**AT, HU**	**AT, HU**
- Vah sub-basin	Danube		**CZ, PL, SK**	**CZ, PL, SK**
- Ipel/Ipoly sub-basin	Danube		**HU, SK**	**HU, SK**
- Drava sub-basin	Danube		**AT, HR, HU, IT, SI**	**AT, HR, HU, SI**
- Tisza sub-basin	Danube		**HU, RO, RS, SK, UA**	**HU, RO, SK**
-- Bega Veche sub-basin	Tisza		**RO, RS**	**RO**

Basin/sub-basin Hyphen (-) used to show sub-basins, and double (--) or triple (---) hyphen for basin units below sub-basins	**Recipient**	**Lakes in the Basin**	**Riparian countries[1,2]**	**Parties that reported on the Basin/sub-basins[3]**
-- Bodva sub-basin[7]	Tisza		**HU, SK**	**HU, SK**
-- Ér/Ier channel sub-basin	Tisza		**HU, RO**	**HU, RO**
-- Fehér-Körös/Crisul Alb sub-basin	Tisza		**HU, RO**	**HU, RO**
-- Fekete-Körös/ Crisul Negru sub-basin	Tisza		**HU, RO**	**HU, RO**
-- Kettős-Körös/Criș sub-basin	Tisza		**HU, RO**	**HU**
-- Kraszna/Crasna sub-basin	Tisza		**HU, RO**	**HU, RO**
-- Mures/Maros sub-basin	Tisza		**HU, RO**	**HU, RO**
-- Navigable Bega Canal sub-basin	Tisza		**RO, RS**	**RO, RS**
-- Someș/Szamos sub-basin	Tisza		**HU, RO**	**HU, RO**
-- Túr/Tur sub-basin	Tisza		**HU, RO**	**HU, RO**
-- Hornad sub-basin	Slana		**HU, SK**	**HU, SK**
- Timiș/Tamiš sub-basin	Danube		**RO, RS**	**RO**
-- Bârzava/Brzava sub-basin[8]	Timiș/Tamiš		**RO, RS**	**RO**
-- Moravita sub-basin[9]	Bârzava/Brzava		**RO, RS**	**RO**
-- Karaš/Caraș sub-basin[10]	Danube		**RO, RS**	**RO**
-- Nera sub-basin[11]	Karaš/Caraș		**RO, RS**	**RO, RS**
-- Vicinic sub-basi[12]	Karaš/Caraș		**RO, RS**	**RO, RS**
- Sava sub-basin	Danube		**AL, BA, HR, ME, RS, SI**	**BA, HR, RS, SI**
-- Ćehotina	Drina > Sava		**BA, ME**	**ME**
- Velika Morava sub-basin	Danube		**BG, MK, ME, RS**	**BG, ME, RS**
-- Nisava sub-basin	Juzna Morava (Velika Morava)		**BG, RS**	**BG, RS**
- Timok sub-basin	Danube		**BG, RS**	**BG, RS**
- Siret sub-basin	Danube		**RO, UA**	**RO, UA**

7 Transboundary waters not explicitly included in the Second Assessment but part of the Danube basin.
8 *Ibid.*
9 *Ibid.*
10 *Ibid.*
11 *Ibid.*
12 *Ibid.*

Basin/sub-basin Hyphen (-) used to show sub-basins, and double (--) or triple (---) hyphen for basin units below sub-basins	**Recipient**	**Lakes in the Basin**	**Riparian countries**[1,2]	**Parties that reported on the Basin/sub-basins**[3]
- Prut sub-basin	Danube		**MD, RO, UA**	**MD, RO, UA**
- Leitha sub-basin	Danube		**AT, HU**	**AT, HU**
- Mosoni-Duna/ Moson-Donau sub-basin	Danube		**AT, HU**	**HU, SK**
- Mura sub-basin	Danube		**AT, HR, HU, IT, SI**	**AT, HU, SI**
- Uzh/Uh/Ung/Už sub-basin[13]	Danube		**SK, UA**	**SK, UA**
Cahul/Kagul River Basin[14]	Lake Cahul/Kagul		**MD, UA**	**UA**
Yalpuh River Basin[15]	Lake Yalpuh		**MD, UA**	**UA**
Cogîlnik River Basin[16]	Lake Sasyk > Black Sea		**MD, UA**	**UA**
Dniester River Basin	Black Sea		**UA, MD, PL**	**UA, MD, PL**
- Kuchurhan sub-basin	Dniester		**MD, UA**	**UA**
Dnieper River Basin	Black Sea		**BY, RU, UA**	**BY, UA**
- Pripyat sub-basin	Dnieper		**BY, UA**	**BY**
Mius River Basin	Black Sea		**RU, UA**	*not reported*
Elancik River Basin	Black Sea		**RU, UA**	*not reported*
Siversky Donets sub-basin	Don > Black Sea		**RU, UA**	*not reported*
Psou River Basin	Black Sea		GE, **RU**	*not reported*
Chorokhi/ Çoruh River Basin	Black Sea		GE, TR	*not reported*
- Machakhelisckali/ Macahel sub-basin	Chorokhi/Çoruh		GE, TR	*not reported*
DRAINAGE BASINS OF THE MEDITERRANEAN SEA				
Ebro River Basin	Mediterranean Sea		AD, **ES, FR**	*not reported*
Rhone River Basin	Mediterranean Sea	Lake Geneva, Lake Emosson	**FR, IT, CH**	**FR, CH**
Po River Basin	Mediterranean Sea	Lake Lugano, Lake Maggiore	**AT, CH, FR, IT**	**CH, IT**
Isonzo/Soča River Basin	Mediterranean Sea		**IT, SI**	**IT, SI**
Levante River Basin	Mediterranean Sea		**IT, SI**	**IT**
Krka River Basin[17]	Mediterranean Sea		**BA, HR**	**BA, HR**
Neretva River Basin[18]	Mediterranean Sea	Bileća Reservoir/ Bilećko Lake	**BA, HR, ME**	**BA, HR**

[13] *Ibid.*
[14] *See supra* note 4.
[15] *See supra* note 4.
[16] *See supra* note 4.
[17] Reported as Adriatic Basin District.
[18] *Ibid.*

Basin/sub-basin Hyphen (-) used to show sub-basins, and double (--) or triple (---) hyphen for basin units below sub-basins	**Recipient**	**Lakes in the Basin**	**Riparian countries**[1,2]	**Parties that reported on the Basin/sub-basins**[3]
Drin River Basin	Mediterranean Sea	Lake Ohrid (AL, MK), Prespa Lakes (AL, GR, MK), Lake Skadar/ Shkoder (AL, ME)	**AL, GR,** Kosovo[19], **MK, ME**	**AL, GR, MK, ME, RS**
Aoos/Vjosa River Basin	Mediterranean Sea		**AL, GR**	**AL, GR**
Vardar/Anoios River Basin	Mediterranean Sea	Lake Dojran/ Doirani	**GR, MK, RS**	**GR, MK, RS**
Struma/Strymonas River Basin	Mediterranean Sea		**BG, GR, MK, RS**	**BG, GR, RS**
Mesta/Nestos River Basin	Mediterranean Sea		**BG, GR**	**BG, GR**
Maritsa/Evros/Meric River Basin	Mediterranean Sea		**BG, GR,** TR	**BG, GR**
- Arda/Ardas sub-basin	Maritza/ Meriç/Evros		**BG, GR,** TR	**BG**
- Byala sub-basin	Maritza/ Meriç/Evros		**BG, GR**	**BG**
- Tundzha/Tundja/ Tunca sub-basin	Maritza/ Meriç/Evros		**BG**, TR	**BG**
Dragonja River basin	Adriatic Sea		**HR, SI**	**SI**
DRAINAGE BASINS OF THE NORTH SEA AND EASTERN ATLANTIC				
Glama/Glomma River Basin[20]	North Sea		**NO, SE**	**NO, SE**
Klarälven River Basin	North Sea		**NO, SE**	**SE**
Wiedau/Vidaa River Basin[21]	North Sea		**DK, DE**	**DE**
- Eider sub-basin	Wiedau/Vidaa		**DK, DE**	**DE**
Elbe River Basin District	North Sea		**AT, CZ, DE, PL**	**AT, CZ, DE, PL**
- Ohre sub-basin	Elbe		**CZ, DE**	**CZ**
Ems River Basin	North Sea		**DE, NL**	**DE, NL**
Rhine River Basin District	North Sea	Lake Constance	**AT, BE, DE, FR, IT, LI, LU, NL, CH**	**AT, BE, DE, FR, LU, NL, CH**
- Moselle sub-basin	Rhine		**BE, FR, DE, LU**	**BE, FR, DE, LU**
-- Saar sub-basin	Moselle		**FR, DE**	**DE, FR, LU**
Meuse River Basin District	North Sea		**BE, FR, DE, LU, NL**	**BE, FR, DE, LU, NL**
Scheldt River Basin District	North Sea		**BE, FR, NL**	**BE, FR, NL**
Yser River Basin	North Sea		**BE, FR**	**BE**
Bidasoa River Basin	Eastern Atlantic		**FR, ES**	*not reported*
Miño/Minho River Basin	Eastern Atlantic	Frieira Reservoir	**PT, ES**	**PT, ES**

[19] A United Nations administered territory under Security Council Resolution 1244 (1999).
[20] See *supra* note 4.
[21] See *supra* note 4.

Basin/sub-basin Hyphen (-) used to show sub-basins, and double (--) or triple (---) hyphen for basin units below sub-basins	**Recipient**	**Lakes in the Basin**	**Riparian countries[1,2]**	**Parties that reported on the Basin/sub-basins[3]**
Lima/Limia River Basin	Eastern Atlantic		**PT, ES**	**PT, ES**
Douro River Basin	Eastern Atlantic		**PT, ES**	**PT, ES**
Tejo/Tajo River Basin	Eastern Atlantic		**PT, ES**	**PT, ES**
Guadiana River Basin	Eastern Atlantic		**PT, ES**	**PT, ES**
Erne River Basin	Eastern Atlantic	Lough Melvin	IE, UK	*not reported*
Foyle River Basin	Eastern Atlantic		IE, UK	*not reported*
Neagh Bann River Basin District	Eastern Atlantic	Lough Neagh	IE, UK	*not reported*
Enningdalsälven River Basin[22]	Idd Fjord		**NO, SE**	**SE**
DRAINAGE BASINS OF THE BALTIC SEA				
Schlei/Trave sub-basin	Wiedau/ Vidaa		**DK, DE**	**DE**
Torne River Basin	Baltic Sea		**FI, NO, SE**	**FI, NO, SE**
Kemijoki River Basin	Baltic Sea		**FI, NO, RU**	**FI, RU**
Oulujoki River Basin	Baltic Sea		**FI, RU**	**FI, RU**
Jänisjoki River Basin	Lake Ladoga		**FI, RU**	**FI, RU**
Tohmajoki	Lake Ladoga		**FI, RU**	**FI, RU**
- Kiteenjoki	Tohmajoki		**FI, RU**	**FI, RU**
Hiitolanjoki River Basin	Lake Ladoga		**FI, RU**	**FI, RU**
Vuoksi River Basin	Lake Ladoga	Lake Pyhäjärvi and Lake Saimaa	**FI, RU**	**FI, RU**
Juustilanjoki River Basin[23]	Baltic Sea	Lake Nuijamaa / Nuijamaanjärvi	**FI, RU**	**FI, RU**
- Soskuanjoki River	Juustilanjoki River		**FI, RU**	**FI, RU**
- Saimaa Canal	Juustilanjoki River		**FI, RU**	**FI, RU**
- Rakkolanjoki sub-basin	Hounijoki > Baltic Sea		**FI, RU**	**FI, RU**
Urpalanjoki Basin	Baltic Sea		**FI, RU**	**FI, RU**
Tervajoki	Baltic Sea		**FI, RU**	**FI, RU**
Vilajoki	Baltic Sea		**FI, RU**	**FI, RU**
Kaltonjoki (Santajoki)	Baltic Sea		**FI, RU**	**FI, RU**
Vaalimaanjoki River Basins	Baltic Sea		**FI, RU**	**FI, RU**
Koutajoki River Basin	Baltic Sea		**FI, RI**	**FI, RU**
Kilpeenjoki River basin	Baltic Sea		**FI, RI**	**FI, RU**
Narva River Basin	Baltic Sea	Narva Reservoir and Lake Peipsi/Chudskoe	**EE, LV, RU**	**EE, RU**

[22] See *supra* note 4.
[23] See *supra* note 5.

Basin/sub-basin Hyphen (-) used to show sub-basins, and double (--) or triple (---) hyphen for basin units below sub-basins	**Recipient**	**Lakes in the Basin**	**Riparian countries**[1,2]	**Parties that reported on the Basin/sub-basins**[3]
Salaca River Basin[24]	Baltic Sea		**EE, LV**	**EE, LV**
Gauja/Koiva River Basin	Baltic Sea		**EE, LV**	**EE, LV**
Daugava River Basin	Baltic Sea	Lake Drisvyata/ Druksiai	**BY, LV, LT, RU**	**BY, LV, LT**
Lielupe River Basin	Baltic Sea		**LV, LT**	**LV, LT**
Venta, Barta, Sventoji River Basins	Baltic Sea		**LV, LT**	**LV, LT**
Neman River Basin	Baltic Sea	Lake Galadus/ Galandusys	**BY, LV, LT, PL, RU**	**BY, LT, PL, RU**
Pregel River Basin	Baltic Sea		**LT, PL, RU**	**PL, RU**
Prohladnaja/Świeza River Basin	Baltic Sea		**PL, RU**	**PL**
Vistula River Basin	Baltic Sea		**BY, PL, SK, UA**	**PL, SK, UA**
- Bug sub-basin	Narew (Vistula)		**BY, PL, UA**	**BY, PL**
- Dunajec sub-basin	Vistula		**PL, SK**	**PL, SK, UA**
-- Poprad sub-basin	Dunajec		**PL, SK**	**PL**
Oder/Odra River Basin	Baltic Sea		**CZ, DE, PL**	**CZ, DE, PL**
DRAINAGE BASINS OF THE WESTERN ATLANTIC				
Oyapock/Oiapoque River Basin	Western Atlantic		BR, **FR**	**FR**

[24] See *supra* note 4.

Annex III – Table of reported agreements and arrangements

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
DRAINAGE BASINS OF THE WHITE SEA, BARENTS SEA AND KARA SEA			
Agreement between the Government of the Republic of Kazakhstan and the Government of the People's Republic of China in the field of Use and Protection of Transboundary Rivers (2001).	Ertis sub-basin	CN, **KZ**	**KZ**
Agreement Regulating the Fishing and Conserving the Fish Stocks in the Grense Jakob River (Voriema) and Pasvik River (Paatsjoki) (1971).	Jakobselv/ Voryema, Paatsjoki/Pasvik River Basins	**NO, RU**	**RU**
Protocol between the Government of Finland and the Government of the Union of Soviet Socialist Republics on the Participation of Soviet Organizations in Pisciculture Measures in Order to Preserve the Fish Stocks in Lake Inari (1983).	Lake Inari	**FI, RU**	**FI, RU**
Agreement between the Government of the Union of Soviet Socialist Republics, the Government of Norway and the Government of Finland concerning the regulation of Lake Inari by means of the Kaitakoski Hydro-electric power station and dam (29 April 1959).	Lake Inari	**FI, NO, RU**	**RU**
Agreement between the Government of the Republic of Estonia and the Government of the Russian Federation on Co-operation in Protection and Sustainable Use of Transboundary Waters (Moscow, 20 August 1997).	Narva River Basin	**EE, RU**	**EE, RU**
Agreement between the Governments of Finland and Norway on the Transfer from the Course of the Näätämö/Neiden River to the Course of the Gandvik River of Water from the Garsjöen, Kjerringvatn and Förstevannene Lakes (1951).	Näätämö, Gandvik River; Garsjöen, Kjerringvatn and Förstevannene Lakes	**FI, NO**	*Not reported*
Agreement Concerning Fishing in the Neiden (Näätämö) River (1977).	Näätämö River Basin	**FI, NO**	*Not reported*
Agreement between the Government of the Kingdom of Norway and the Government of the Union of Soviet Socialist Republics concerning Water Abstraction by Norway from the Upper Reservoir of the Borisoglebsk Hydropower Plant at the Transboundary River Pasvik (1976).	Paatsjoki (Borisoglebsk Reservoir)	**NO, RU**	*Not reported*
Agreement between Norway and the Union of Soviet Socialist Republics on the Utilization of Water Power on the Pasvik River (1957).	Paatsjoki/Pasvik River Basin	**NO, RU**	*Not reported*
Agreement between Norway and Finland regarding fishing regulations in River Tana (Helsinki, 1 March 1989).	Teno/Tana River Basin	**FI, NO**	**NO**
Agreement concerning the Finnish-Norwegian River Basin District (22 May 2014).		**FI, NO**	**FI, NO**
Memorandum of Understanding pursuant to the Agreement on the Finnish-Norwegian River Basin District (30 October 2013).		**FI, NO**	**FI**

[25] Agreements listed in italics and as 'not reported' were reported in the Second Assessment but not in the pilot reporting exercise.
[26] When not specified, the agreement covers all transboundary waters shared by riparian countries.
[27] For a list of country codes see *supra* note 2. Country codes in bold indicate Parties to the Water Convention

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Agreement concerning the Finnish-Norwegian Transboundary Water Commission (Helsinki, 5 November 1980).		**FI, NO**	**FI**
Finland and Union of Soviet Socialist Republics' Agreement concerning frontier watercourses (with exchange of letters) (Helsinki, 24 April 1964).		**FI, RU**	**FI, RU**
Agreement between the Government of the Russian Federation and the Government of Mongolia on protection and management of transboundary waters (1995).		MN, **RU**	*Not reported*
DRAINAGE BASINS OF THE SEA OF OKHOTSK AND SEA OF JAPAN			
Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on Cooperation Concerning Protection, Regulation and Reproduction of Living Water Resources in Frontier Waters of the Rivers Amur and Ussuri (1994).	Amur and Ussuri Rivers	CN, **RU**	*Not reported*
Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on Cooperation related to the Protection of Water Quality and the Ecological Status of the Argun River (2006).	Argun sub-basin	CN, **RU**	*Not reported*
Agreement between the Government of the Russian Federation and the Government of the People's Republic of China Concerning Rational Use and Protection of Transboundary Waters (2008).		CN, **RU**	*Not reported*
Agreement between the Government of the Russian Federation and the Government of the People's Republic of China Concerning Guidance of Joint Economic Use of Separate Islands and Surrounding Water Areas in Frontier Rivers (1997).		CN, **RU**	*Not reported*
DRAINAGE BASINS OF THE ARAL SEA AND OTHER TRANSBOUNDARY WATERS IN CENTRAL ASIA			
The Agreement between Turkmenistan and the Republic of Uzbekistan on the joint use of water resources of the Amu Darya river downstream (26 May 2007).	Amu Darya sub-basin	**TM, UZ**	**TM**
Agreement between the Government of the Republic of Kazakhstan, Government of the Kyrgyz Republic, Government of the Republic of Tajikistan, Government of Turkmenistan and Government of the Republic of Uzbekistan on the Status of the International Fund for Saving the Aral Sea (IFAS) and its organizations (1999).	Aral Sea Basin	**KZ,** KG, TJ, **TK, UZ**	*Not reported*
The Agreement on Joint Actions to Address the Problems of the Aral Sea and Sub-Aral Area, Environmental Rehabilitation and Socio-Economic Development of the Aral Region established the Intestate Council on the Problems of Aral Sea Basin (Kyzyl-Orda, 26 March 1993).	Aral Sea Basin	**KZ,** KG, TJ, **TM, UZ**	**UZ**
Agreement between the Government of the Kazakh Republic and the Government of the Kyrgyz Republic on the Use of Water Management Facilities of Intergovernmental Status on the Rivers Chu and Talas (21 January 2000).	Chu-Talas River Basins	**KZ**, KG	**KZ**
Agreement between the Government of the Russian Federation and the Government of the Republic of Azerbaijan on the Rational Use and Protection of Water Resources of the transboundary Samur River (3 September 2010).	Samur River Basin	**AZ, RU**	**AZ, RU**

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Agreement between the Governments of the Republic of Kazakhstan, the Kyrgyz Republic, and the Republic of Uzbekistan on the Use of Water and Energy Resources of the Syr Darya Basin (Bishkek, 17 March 1998).	Syr Daria sub-basin	**KZ,** KG, **UZ**	**UZ**
Agreement between the Governments of the Russian Federation and the Republic of Kazakhstan on conservation of the ecosystem of the transboundary Ural River Basin (Astana, 4 October 2016).	Ural River Basin	**KZ, RU**	**RU**
Agreement between the Government of the Russian Federation and the Government of the Republic of Kazakhstan on Joint Use and Protection of Transboundary Water Bodies (Ust-Kamenogorsk, 7 September 2010).		**KZ, RU**	**KZ, RU**
Framework Convention on Environmental Protection for Sustainable Development in Central Asia (2006).		**KZ,** KG, TJ, **TK, UZ**	*Not reported*
Agreement between the Government of the Republic of Kazakhstan and the Government of the People's Republic of China on Cooperation in the Use and Protection of Transboundary Rivers (Astana, 12 September 2001).		CN, **KZ**	**KZ**
Agreement between the Government of the Russian Federation and the Government of the Republic of Kazakhstan Concerning the Joint Use and Protection of Transboundary Waters (1992).		**KZ, RU**	*Not reported*
Agreement between the Government of the Republic of Kazakhstan and the Government of the People's Republic of China on the Protection of the Water Quality of Transboundary Rivers (2011).		CN, **KZ**	*Not reported*
Agreement between the Government of the Republic of Uzbekistan and the Government of Turkmenistan Concerning Cooperation on Water Management Issues (Turkmenabat, 16 January 1996).		**TM, UZ**	**TM**
Agreement between the Republic of Kazakhstan, the Republic of Kyrgyzstan, the Republic of Uzbekistan, the Republic of Tajikistan and Turkmenistan on cooperation in the field of joint water resources management and conservation of interstate sources (Almaty, 18 February 1992).		**KZ,** KG, TJ, **TM, UZ**	**KZ, TM, UZ**
Agreement between the Kyrgyz Republic, Republic of Kazakhstan and the Republic of Uzbekistan on the Use of Energy and Water Resources, Construction and Operation of Gas Pipelines in the Central Asian region (1996).		KG, **KZ, UZ**	*Not reported*
Agreement between the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on Cooperation in the Area of Environment and Rational Nature Use (1998).		KG, **KZ, UZ**	*Not reported*
DRAINAGE BASINS OF THE CASPIAN SEA			
Agreement on Cooperation in the Technical and Economic Fields (1963).	Araks/Aras sub-basin	**AZ**, IR	**AZ**
Agreement between the Republic of Azerbaijan and Iran on the Construction of Hydroelectric Facilities (Ordubad-Marazad and Khudaferin, Gyz-Galasy) for the Joint Use of Water Resources of the Araz River (signed on 20 June 2014 and 23 February 2016).	Araks/Aras sub-basin	**AZ**, IR	**AZ**
Agreement between the State Committee of Irrigation and Water Economy of the Azerbaijan Republic and the Department of Management of Melioration Systems of Georgia (1993).	Jandari Reservoir (on the Kura)	**AZ,** GE	*Not reported*

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
The Memorandum of Understanding between the Ministry of Environment of Georgia and the State Committee of Ecology and Nature Management of the Republic of Azerbaijan (currently the Ministry of Ecology) on Cooperation in the Development and Implementation of Pilot Projects for Monitoring and Assessment of the Status of the Kura River Basin (1997).	Kura River Basin	**AZ,** GE	*Not reported*
Agreement between the Government of Turkmenistan and the Government of the Islamic Republic of Iran on the Planning, Construction and Exploitation of the Common Water Diversion Facility on the River Tejen/Harirud in the area of the Shirdere Settlement (2007).	Tejen/Harirud River basin	IR, **TM**	*Not reported*
Agreement between the Government of the Soviet Union and the Government of the Islamic Republic of Iran for the Construction of Dosti Dam (1999).	Tejen/Harirud, Dosti Reservoir	IR, **TM**	*Not reported*
Treaty concerning the regime of the Soviet-Iranian frontier and the procedure for the settlement of frontier disputes and incidents (with Protocol and annexes) (Moscow, 14 May 1957).	Tejen/Harirud River basin	IR, **TM**	**TM**
The Agreement on the joint use of transboundary rivers and water along the borderline from the river Geri-Rud (Tejen) to the Caspian Sea (1926).	Tejen/Harirud River basin, Atrek/Atrak River Basin	IR, **TM**	**TM**
Russo-Persian Treaty of Friendship between representatives of the Islamic Republic of Iran and the Union of Soviet Socialist Republics (1921).	Tejen/Harirud River basin	IR, **TM**	*Not reported*
The Memorandum of Understanding between the Ministry of Ecology and Natural Resources of Azerbaijan and the Ministry of Environment Protection and Natural Resources of Georgia (2007).		**AZ,** GE	*Not reported*
The Agreement between the Government of Georgia and the Government of Azerbaijan on Cooperation in Environmental Protection (Baku, 18 February 1997).		**AZ,** GE	**AZ**
Treaty between the Government of the Union of Soviet Socialist Republics and the Imperial Government of Iran concerning the Regime of the Soviet Iranian Frontier and the Procedure for the Settlement of Frontier Disputes and Incidents (1957).		**AZ,** IR	*Not reported*
DRAINAGE BASINS OF THE BLACK SEA			
Convention on Co-operation for the Protection and Sustainable Use of the River Danube (Sofia, 29 June 1994).	Danube River Basin	**AT, BA, BG, HR, CZ, DE, HU, MD, ME, RO, RS, SI, SK, UA**	**AT, BA, BG, HR, CZ, DE, HU, MD, RO, RS, SI, SK, UA**
Agreement between the Federal Republic of Germany and the European Economic Community, on the one hand, and the Republic of Austria, on the other, on cooperation on management of water resources in the Danube Basin (Regensburg, 1 December 1987).	Danube River Basin	**AT, DE**	**AT, DE**
Agreement between the Ministry of Water, Forests and Environmental Protection of Romania, the Ministry of Environment and Territory Development of the Republic of Moldova and the Ministry of Environment and Natural Resources of Ukraine on Cooperation in the Area of Protected Natural Areas of the Danube Delta and Lower Prut (2000).	Danube Delta, Lower Prut	**RO, MD, UA**	*Not reported*

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Agreement between the Government of Ukraine and the Republic of Belarus on Cooperation in Environmental Protection (1994).	Dnieper, Bug	**BY, UA**	*Not reported*
Convention between the Government of the Federal People's Republic of Yugoslavia and the Federal Government of the Austrian Republic concerning water economy questions relating to the Drava (Geneva, 25 April 1954).	Drava sub-basin	**AT, SI**	**AT, SI**
Agreement between the Government of the Republic of Slovenia and the Federal Government of the Republic of Austria on further validity of the appointed Yugoslav-Austrian Contracts in the relations between the Republic of Slovenia and the Republic of Austria (1993).	Drava sub-basin	**AT, SI**	**SI**
Agreement between the Lugansk (Ukraine) and Rostov Oblast (Russian Federation) on the Joint Use, Restoration and Protection of Water Resources of Transboundary River Basin (1999).	Kundryuchya	**RU, UA**	*Not reported*
Agreement between the Federal People's Republic of Yugoslavia and the Republic of Austria concerning water economy questions in respect of the frontier sector of the Mura and the frontier waters of the Mura (Vienna, 16 December 1954).	Mura sub-basin	**AT, SI**	**AT, SI**
Agreement between the Government of Romania and the Government of Republic of Moldova on cooperation for the Protection and Sustainable Use of the River Prut and Danube (Chișinău, 28 June 2010).	Prut sub-basin Danube River Basin	**RO, MD**	**RO, MD**
Memorandum of Understanding for the Cooperation on the Prut River between the National Administrations "Apele Romane" and Concernul "Apele Moldovei" (1995).	Prut sub-basin	**RO, MD**	*Not reported*
Agreement between the Government of Romania and the Government of the Republic of Moldova on Cooperation in the Area of Protection of Fish Resources and the Regulating of Fishing in the Prut River and Stanca-Costesti Reservoir (2003).	Prut sub-basin (Stanca-Costesti Reservoir)	**RO, MD**	*Not reported*
Cooperation on a Specific Regulation on Maintenance and Operation of the Hydrotechnical Knot Stanca-Costesti on the Prut River (1985).	Prut sub-basin (Stanca-Costesti Reservoir)	**RO, MD**	*Not reported*
Protocol on Sediment Management to the Framework Agreement on the Sava River Basin (Brčko, 6 July 2015).	Sava River Basin	**BA, HR, RS, SI**	**BA**
Policy on the Exchange of Hydrological and Meteorological Data and Information in the Sava River Basin (2014).	Sava River Basin	**BA, HR, RS, SI**	**BA**
Memorandum of Understanding between International Sava River Basin Commission and Montenegro (Ljubljana, 1 July 2010).	Sava River Basin	**BA, HR, RS, SI**	**BA**
Protocol on Flood Protection to the Framework Agreement on the Sava River Basin (Gradiška, 1 June 2010).	Sava River Basin	**BA, HR, RS, SI**	**BA**
Protocol on the Prevention of Water Pollution caused by navigation to the Framework Agreement on the Sava River Basin (1 June 2009).	Sava River Basin	**BA, HR, RS, SI**	**BA**
Framework Agreement on the Sava River Basin (Kranjska Gora, 3 December 2002).	Sava River Basin	**BA, HR, SI, RS**	**BA, HR, RS**
Memorandum of joint actions on the Protection and Use of Water Objects of the Seversky Donets River between Kharkov, Donetsk and Lugansk Oblasts of Ukraine and Rostov and Belgorod Oblasts of the Russian Federation (2001).	Seversky Donets	**RU, UA**	*Not reported*

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Agreement on cooperation between the State Administration of Environmental Protection in Zhytomyr oblast and the Gomel oblast Committee of Natural Resources and Environmental Protection of the Republic of Belarus (2005).		**BY, UA**	*Not reported*
Agreement on Cooperation between State Inspections in Volyn oblast in Ukraine and the Brest Committee of Natural Resources and Environmental Protection of the Republic of Belarus (2004).		**BY, UA**	*Not reported*
Agreement between the Ukrainian State Committee for Hydrometeorology and the Committee for Hydrometeorology of the Ministry of Emergencies and Protection of Population from Consequences of the Chernobyl Nuclear Power Station Disaster of the Republic of Belarus on operational-industrial and scientific-technical cooperation (1995).		**BY, UA**	*Not reported*
The Agreement between the Government of the Czechoslovak Republic and the Government of the Polish People's Republic concerning the Use of Water Resources in Frontier Waters (1958).		**CZ, PL**	**CZ, PL**
Agreement between the Government of the Socialist Republic of Romania and the Government of the Federative Socialist Republic of Yugoslavia regarding the operation and maintenance of the Hydropower National System and of Navigation Iron Gates I and Iron Gates II (1998).		**RO, RS**	*Not reported*
Agreement between the Government of the Federal People's Republic of Yugoslavia and the Government of the People's Republic of Romania concerning the Hydrotechnical Issues on Hydrotechnical Systems and Watercourses at the Border or Crossing the State Border (Bucharest, 7 April 1955).		**RO, RS**	**RO, RS**
Agreement between the Government of the Republic of Hungary and the Government of Romania on the Protection and Sustainable Use of Transboundary Waters (Budapest, 15 September 2003).		**HU, RO**	**HU, RO**
Agreement between the Government of the Czechoslovak Socialist Republic and of the Hungarian People's Republic relating to the Regulation of the Management of Frontier Waters (1976).		**HU, SK**	**HU, SK**
Agreement on cooperation between the Bug Basin Water Resources Management Authority of Ukraine and the Regional Water Management Authority of Warsaw in Poland (2006).		**PL, UA**	*Not reported*
Agreement on Cooperation between the State Department of Ecology and Natural Resources in the Lviv region, Ukraine, and the Podkarpatskiy Provincial Water Inspectorate for Environmental Protection in Rzeszów, Poland (2004).		**PL, UA**	*Not reported*
Agreement between the Government of Ukraine and the Government of Poland on Cooperation in the Field of Water Management in Frontier Waters (Kiev, 10 October 1996).		**PL, UA**	**PL, UA**
The Agreement between the Cabinet of Ministers of Ukraine and the Government of the Republic of Belarus on Joint Use and Protection of Transboundary Waters (Kiev, 16 October 2001).		**BY, UA**	**BY, UA**

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Technical Protocol between the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus and the State Committee for Water Management of Ukraine on cooperation in the field of monitoring and exchange of information on the status of transboundary surface waters.		**BY, UA**	**BY**
Agreement between the Government of Slovakia and the Government of Poland on the management of Transboundary Waters (1997).		**PL, SK**	**PL, SK**
Treaty between the Czechoslovak Socialist Republic and the Republic of Austria on Water Management Issues on Transboundary Waters (1967).		**AT, CZ, SK**	**AT, CZ, SK**
The Agreement between the Government of Ukraine and the Government of the Republic of Hungary on the Questions of Water Management in Frontier Waters (Budapest, 11 November 1997).		**HU, UA**	**HU, UA**
Memorandum of Understanding between the Ministry of Environment and Forests of Romania and the Ministry of Environment of the Republic of Moldova on Cooperation in the field of Environmental Protection (2010).		**RO, MD**	*Not reported*
Memorandum of Understanding between the Ministry of Environment and Forests of Romania and the Ministry of Environment of the Republic of Moldova on Cooperation in the field of Environmental Protection (2003).		**RO, MD**	Not reported
Protocol on Cooperation in the Field of Hydrology between the National Institute of Hydrology and Water Management, Ministry of Environment and Forests of Romania, and the State Hydrometeorological Service, Ministry of Environment of the Republic of Moldova (2003).		**RO, MD**	*Not reported*
Protocol on Cooperation in the Field of Meteorology and Hydrology between the National Administration of Meteorology, Ministry of Environment of Romania, and the State Hydrometeorological Service, Ministry of Environment of the Republic of Moldova (2002).		**RO, MD**	*Not reported*
Agreement between the Government of Romania and the Government of Ukraine on Cooperation in the Field of Transboundary Water Management (Galați, 30 September 1997).		**RO, UA**	**RO, UA**
The Agreement between the Government of Ukraine and the Government of the Slovak Republic on Water Management in Frontier Waters (Bratislava, 14 June 1994).		**SK, UA**	**SK, UA**
Agreement between the Government of the Republic of Croatia and the Government of the Republic of Hungary on water management (10 June 1994).		**HR, HU**	**HR, HU**
Agreement between the Government of the People's Republic of Hungary and the Government of the Yugoslavian Federal People's Republic on Water Management questions (Belgrade, 8 August 1955).		**HU, RS**	**RS**
Agreement between the Governments of the Republic of Slovenia and the Republic of Hungary on the Issues of Water Management (1994).		**HU, SI**	**HU, SI**
Treaty between the Government of the Republic of Moldova and the Cabinet of Ministers of Ukraine on Cooperation in the Field of Protection and Sustainable Development of the Dniester River Basin (Rome, 29 November 2012).		**MD, UA**	**MD, UA**

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
The Agreement between the Government of the Republic of Moldova and the Government of Ukraine on the Joint Use and Protection of Transboundary Waters (Chișinău, 23 November 1994).		**MD, UA**	**MD, UA**
Agreement on scientific-technical cooperation between the Head office of the State Department of Hydrometeorology of the Republic of Moldova and the State Committee for Hydrometeorology of Ukraine (1994).		**MD, UA**	*Not reported*
Agreement between the Government of the Republic of Slovenia and the Government of the Republic of Croatia on Protection against Natural and Civil Disasters (1997).		**HR, SI**	*Not reported*
Treaty between the Government of the Republic of Croatia and the Government of the Republic of Slovenia on the settlement of water management relations (25 October 1996).		**HR, SI**	**HR, SI**
Agreement between the Government of the Czech Republic and the Government of the Republic of Poland on Cooperation in Water Management on Transboundary Waters.		**CZ, PL**	**CZ, PL**
Agreement on the regulation of water management issues in the borderland between Hungary and Austria (1956).		**AT, HU**	**AT, HU**
Agreement between the Government of the Czech Republic and the Government of the Slovak Republic on Cooperation on Transboundary Waters (1999).		**CZ, SK**	**CZ, SK**
Agreement between the Committee of Ukraine for Hydrometeorology and the Russian Federal Service for Hydrometeorology and Environmental Monitoring for Cooperation in the Field of Hydrometeorology and Environmental Monitoring (1996).		**RU, UA**	*Not reported*
The Agreement between the Government of Ukraine and the Government of the Russian Federation Concerning the Joint Use and Protection of Transboundary Waters (1992).		**RU, UA**	*Not reported*
DRAINAGE BASINS OF THE MEDITERRANEAN SEA			
Agreement between the Government of the French Republic and the Swiss Federal Council concerning the practice of fishing and the protection of aquatic habitats in the part of Doubs constituting a frontier between the two states (Paris, 29 July 1991).	Doubs sub-basin	**FR, CH**	**FR**
General water regulation common to the three hydro-electric developments of the French-Swiss Doubs (1969) (under revision).	Doubs sub-basin	**FR, CH**	**FR**
Memorandum of Understanding for the management of the Extended Drin Basin - The Drin Strategic Shared Vision (Tirana, 25 November 2011).	Drin River Basin	**AL, GR,** Kosovo[28], **MK, ME**	**AL, MD, ME**
Agreement on the permanent Italian-Slovenian Commission for hydro-economy established for the implementation of the Osimo Treaty between Italy and Yugoslavia signed 1975.	Isonzo/Soča River Basin	**IT, SI**	**IT, SI**
The Convention between the Swiss Federal Council and the Government of the French Republic on the protection of Geneva Lake against pollution (Paris, 16 November 1962).	Lake Geneva	**CH, FR**	**CH, FR**
Agreement between France and Switzerland concerning the Intervention of Bodies in charge of Fighting against Accidental Water Pollution by Hydrocarbons or Other Substances Capable of Altering the Water (1977).	Lake Geneva	**CH, FR**	**FR**

[28] See *supra* note 19.

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Protocol signed between the General Directorate of State Hydraulic Works of Turkey and the National Institute of Meteorology and Hydrology of Bulgaria for the installation, operation and maintenance of a flow observation telemetry station on the Maritsa River in Svilengrad, Bulgaria (2002).	Maritsa/Evros/ Meriç River	**BG**, TR	*Not reported*
Memorandum of Understanding Concerning Cooperation on Environmental Protection (2001).	Maritsa/Evros/ Meriç and Arda/ Ardas Rivers	**GR,** TR	*Not reported*
Agreement between the Government of the Republic of Turkey and the Government of the People's Republic of Bulgaria on Long Term Economic, Technical, Industrial and Scientific Cooperation (1975).	Maritsa/Evros/ Meriç, Arda/ Ardas and Tundja Rivers	**GR,** TR	*Not reported*
The Agreement between the Republic of Turkey and the People's Republic of Bulgaria concerning Cooperation in the Use of the Waters of Rivers Flowing through the Territory of Both Countries (1968).	Maritsa/Evros/ Meriç, Arda/ Ardas and Tundja Rivers	**GR,** TR	*Not reported*
Protocol on the Rehabilitation of the Meriç River Basin Forming the Significant Part of Turkish-Greek Border in Thrace (1963).	Maritsa/Evros/ Meriç River Basin	**GR,** TR	*Not reported*
Agreement related to the construction of flood control measures (1955).	Maritsa/Evros/ Meriç River Basin	**GR,** TR	*Not reported*
Greek-Turkey Accord relative to the regulation of hydraulic works on both banks of the Maritza Evros River (Ankara, 20 June 1934).	Maritsa/Evros/ Meriç River Basin	**GR,** TR	**GR**
Agreement between the Government of the Republic of Bulgaria and the Government of the Republic of Greece on water use of the River Mesta (22 December 1995).	Mesta/Nestos River Basin	**BG, GR**	**BG, GR**
Agreement between the Council of Ministers of the Republic of Albania and the Government of the Republic of Macedonia for the Protection and Sustainable Development of Lake Ohrid and its Watershed (Skopje, 17 June 2004).	Ohrid Lake	**AL, MK**	**AL, MK**
Joint Statement regarding the Prespa Park by the Prime Ministers of the Hellenic Republic, the Republic of Albania and the former Yugoslav Republic of Macedonia (Pyli, 27 November 2009).	Prespa Lakes	**AL, GR, MK**	**GR**
Joint Declaration on the Creation of the Prespa Park and the Environmental Protection and Sustainable Development of the Prespa Lakes and their Surroundings, by the Prime Ministers of the Hellenic Republic, the Republic of Albania and the former Yugoslav Republic of Macedonia (Aghios Germanos, 2 February 2000).	Prespa Lakes	**AL, GR, MK**	**GR, MK**
Agreement on the Protection and Sustainable Development of the Prespa Park Area (Pyli, 2 February 2010).	Prespa Lakes	**AL, GR, MK**	**GR**
Agreement between the Republic of Bulgaria and the Republic of Turkey on Determination of the Boundary in the Mouth Area of the Rezovska/ Multudere River and Delimitation of the Maritime Areas between the Two States in the Black Sea (1997).	Rezovska/ Multudere	**BG,** TR	*Not reported*
Agreement between the Ministry of Tourism and Environment of the Republic of Montenegro and the Ministry of Environment, Forestry and Water Administration of the Republic of Albania for the Protection and Sustainable Development of the Skadar/Shkodra Lake (2008).	Skadar/Shkodra Lake	**AL, ME**	**AL**

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Convention concerning the protection of Italo-Swiss waters against pollution (Rome, 20 April 1972).	Ticino sub-basin	**CH, IT**	**CH, IT**
Agreement on Partial Correction of The Border Line of Timok River between The Government of The Republic of Bulgaria And The Government of Federal People's Republic Yugoslavia (14 December, 1961).	Timok River Basin	**BG, RS**	*Not reported*
Agreement regarding the shared border (1954).	Timok River Basin	**BG, RS**	*Not reported*
Agreement on Assistance and Cooperation in the Field of Water for Reducing the Negative Effects of the Drought (1993).	Tundja sub-basin	**BG,** TR	*Not reported*
The Agreement concerning Water Economy Questions between the Government of the Federal People's Republic of Yugoslavia and the Government of the People's Republic of Bulgaria (1958).		**BG, RS**	*Not reported*
Agreement between the Government of the Republic of Croatia and the Government of the Republic of Montenegro on Mutual Relations in the Field of Water Management (4 September 2007).		**HR, ME**	**HR**
Agreement between the Government of the Republic of Croatia and the Council of Ministers of Bosnia and Herzegovina on common financing of maintenance and operation of regional sewerage system "Komarna-Neum Mljetski Kanal" (2007).		**BA, HR**	*Not reported*
Agreement between the Council of Ministers of Bosnia and Herzegovina and the Government of the Republic of Croatia on Cooperation in the Protection against Natural and Civil Disasters (2001).		**BA, HR**	*Not reported*
Treaty between the Government of the Republic of Croatia and the Government of Bosnia and Herzegovina on the Establishment of Water Management Relations (11 July 1996).		**BA, HR**	**BA, HR**
Agreement between the Government of the Hellenic Republic and the Government of the Republic of Albania on the establishment of the permanent Greek-Albanian Commission on transboundary freshwater issues. Athens, 3 April 2003.		**AL, GR**	**AL, GR**
The Agreement between the Government of the Federal People's Republic of Yugoslavia and the Government of the People's Republic of Albania concerning Water Economy Questions set up a Joint Water Economy Commission that stopped being operational soon after its establishment.		**AL, MK**	*Not reported*
Joint Declaration of the Minister of Environment and Water of the Republic of Bulgaria and the Minister of Forestry and Water Affairs of the Republic of Turkey on Cooperation in the Field of Water Resources (Ankara, 20 March 2012) .		**BG, TR**	**BG**
Joint Declaration of the Minister of Environment and Water of the Republic of Bulgaria and the Minister of Environment, Energy and Climate Change of the Hellenic Republic on Understanding and Cooperation in the Field of Use of Water Resources on the Respective Territories of the Shared River Basins between the Republic of Bulgaria and the Hellenic Republic (Sofia, 27 July 2010).		**BG, GR**	**BG, GR**

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Agreement between the Ministry of Environment and Water of the Republic of Bulgaria and the Ministry for the Environment, Physical Planning and Public Works of the Hellenic Republic on Cooperation in the Field of Environmental Protection (2002).		**BG, GR**	*Not reported*
Agreement for the Establishment of the Greek-Bulgarian Committee for Cooperation in the Fields of Electric Energy and the Utilization of the Waters of the Rivers Crossing the Two Countries (Sofia, 12 July 1971).		**BG, GR**	**GR**
Agreement on Cooperation between the People's Republic of Bulgaria and the Kingdom of Greece Concerning the Utilization of the Waters of the Rivers Crossing the Two Countries (Athens, 9 July 1964).		**BG, GR**	**GR**
Joint Declaration between the Minister for Environment, Energy and Climate Change of the Hellenic Republic and the Minister for Environment and Forestry of the Republic of Turkey (Athens, 14 May 2010).		**GR,** TR	**GR**
Accord between the Kingdom of Greece and the Socialist Federal Republic of Yugoslavia on hydro-economy issues (Athens, 18 September 1959).		**GR, MK**	**GR**
DRAINAGE BASINS OF THE NORTH SEA AND EASTERN ATLANTIC			
Convention on the International Commission for the Protection of the Elbe (Magdeburg, 8 October 1990).	Elbe River Basin	**CZ, DE**	**AT, CZ, DE, PL**[29]
Exchange of letters between the Ministers of the Federal Republic of Germany, the Kingdom of the Netherlands, Lower-Saxony and Nordrhein-Westfalen in which they agree to implement the Water Framework Directive (summer 2002) and the Floods Directive (17 March 2009) in the river basin of the Ems. Additional Protocol on cooperation in water and nature management (Ems-Dollard Environmental Protocol) to the Agreement of 8 April 1960 between the Kingdom of the Netherlands and the Federal Republic of Germany on cooperation in the Ems Estuary (On board 'MS Warsteiner Admiral' in the Ems estuary near Delfzijl, 22 August 1996). Treaty between the Kingdom of the Netherlands and the Federal Republic of Germany concerning arrangements for cooperation in the Ems Estuary ('s-Gravenhage, 8 April 1960).	Ems River Basin	**DE, NL**	**DE, NL**
Agreement on the Protection of the Lake Constance against pollution (Steckborn, 27 October 1960).	Lake Constance	**AT, CH, DE**	**AT, CH, DE**

[29] Austria and Poland are observer States in the International Commission for the Protection of the Elbe River (ICPER).

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Agreement on cooperation for the protection and sustainable use of the waters of the Spanish-Portuguese hydrographic basins (with annexes, additional protocol and exchanges of notes, 8 January 1999, 8 March 1999, 22 April 1999 and 30 April 1999) (Albufeira, 30 November 1998). Protocol of revision of the Agreement on cooperation for the protection and sustainable use of the waters of the Spanish-Portuguese hydrographic basins and the additional protocol, signed at Albufeira on 30 November 1998 (with annex) (Madrid, 4 April 2008, and Lisbon, 4 April 2008).	Limia/Lima, Miño/Minho, Duero/Douro, Tajo/Tejo, Guadiana river basins	**ES, PT**	**ES, PT**
International agreement on the river Meuse (Ghent, 3 December 2002).	Meuse River Basin	**BE, FR, DE, LU, NL**	**BE, FR, DE, LU, NL**
Complementary Protocol to the Constitution of an International Commission on the Protection of the Mosel against pollution and with the Protocol concerning the Constitution of an International Commission on the protection of the Saar against pollution (Maria Laach, 13 November 1992).	Mosel and Saar sub-basins	**Mosel: DE, FR, LU** **Saar: DE, FR**	**FR, LU**
Complementary Protocol relating to the establishment of a joint secretariat (Brussels, 22 March 1990).	Mosel and Saar sub-basins	**Mosel: DE, FR, LU** **Saar: DE, FR**	**FR, LU**
Protocol concerning the Constitution of an International Commission for the Protection of the Mosel against Pollution (Paris, 20 December 1961).	Mosel sub-basin	**DE, FR, LU**	**FR, DE, LU**
Convention on the Canalization of the Mosel (Luxembourg, 27 October 1956).	Mosel sub-basin	**DE, FR, LU**	**LU**
Convention on the Mosel Navigation (1947).	Mosel sub-basin	**DE, FR, LU**	**FR**
Convention on the Protection of the Rhine (Bern, 12 April 1999). Additional Protocol to the Chlorides Convention (25 December 1991). Convention on the Protection of the Rhine against Chemical Pollution (Bonn, 3 December 1976). Convention on the Protection of the Rhine against Pollution with Chlorides (Bonn, 3 December 1976). Additional Agreement concerning the Convention on the International Commission for the Protection of the Rhine against Pollution signed in Bern on 29 April 1963 (Bonn, 3 December 1976). Convention on the International Commission for the Protection of the Rhine against Pollution (Bern, 29 April 1963).	Rhine River Basin	**CH, DE, FR, LU, NL**	**CH, DE, FR, LU, NL**

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Strasbourg Ministerial decision on the Coordinating Committee for the Water Framework Directive (Strasbourg, 2001). Rules of Procedure and Financial Regulations for the Cooperation of the International Commission for the Protection of the Rhine (ICPR) with the Coordinating Committee (CC) Rhine (1 July 2010).	Rhine River Basin	**AT, BE – Region Wallonia, CH, DE, FR, IT, LI, LU, NL**	**AT, NL**
Protocol concerning the Constitution of an International Commission for the Protection of the Saar against Pollution (Paris, 20 December 1961).	Saar sub-basin	**DE, FR**	**DE, FR, LU**
International Agreement on the River Scheldt (Ghent, 3 December 2002). Agreement on the Protection of the (River) Scheldt (Charleville-Mezieres, 26 April 1994).	Scheldt River Basin	**BE, FR, NL**	**BE, FR, NL**
Joint Declaration of the Environment Ministries of Denmark and Germany on the Coordination of the Management of the Transboundary Catchments of the Wiedau, Krusau, Meynau and Jadelunder Graben done in 2005 for the Water Framework Directive (WFD) implementation, and enlarged in 2010 to also cover the EU Flood Risk Directive.	Wiedau/Vidaa River Basin and others	**DE, DK**	**DE**
Administrative Agreement between Spain and France on Water Management (2006).		**ES, FR**	*Not reported*
The Treaty between the Czech Republic and the Federal Republic of Germany on Cooperation on Transboundary Waters (1995).		**CZ, DE**	**CZ, DE**
Agreement between the Ministry of Environment of Romania and the Ministry of Environment and Waters of Republic of Bulgaria for Cooperation in the Field of Water Resources Management (Bucharest, 12 November 2004).		**BG, RO**	**BG**
Memorandum of Understanding between Sweden and Norway describing the implementation of the WFD by the countries (2008).		**NO, SE**	**SE**
Convention between Norway and Sweden on Certain Questions relating to the Law on Watercourses (11 May 1929).		**NO, SE**	**SE**
Memorandum of Understanding / Strategy for international cooperation on transboundary waters between Norway and Sweden (2011 – 2012).		**NO, SE**	**SE**
Treaty between the Kingdom of the Netherlands and the Federal Republic of Germany concerning the course of the common frontier, the boundary waters, real property situated near the frontier, traffic crossing the frontier on land and via inland waters, and other frontier questions, with annexes and final protocol (Frontier Treaty) ('s-Gravenhage, 8 April 1960).		**DE, NL**	**DE, NL**

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
DRAINAGE BASINS OF THE BALTIC SEA			
Trilateral agreement between the Governments of Latvia, Belarus and the Russian Federation concerning cooperation in the Daugava/ Zapadnaja Dvina River Basin.	Daugava/ Zapadnaja Dvina River Basin	**BY, LV, RU**	**LV**
The Technical protocol signed by the Latvian and Lithuanian Ministers of the Environment on Joint Management of Daugava, Lielupe and Venta River Basin Districts (2003).	Daugava, Lielupe and Venta River Basins	**LT, LV**	*Not reported*
The Agreement between the Government of the Republic of Estonia and the Government of the Russian Federation concerning Cooperation on the Conservation and Use of Fishing Stocks in Lake Peipsi/Chudskoe, Lake Lämmijärv/ Teoploye and Lake Pihkva/Pskovskoye resulted in the establishment of a joint fishery regime for the lakes (1994).	Lake Peipsi/ Chudskoe, Lake Lämmijärv/ Teoploye and Lake Pihkva/ Pskovskoye	**EE, RU**	*Not reported*
Agreement between the Government of the Republic of Finland and the Government of the Union of Soviet Socialist Republics on the Rules of Regulating the Lake Saimaa and the Vuoksi River (1989).	Lake Saimaa and the Vuoksi River	**FI, RU**	*Not reported*
Agreement between the Government of the Polish People's Republic and the Government of the Union of Soviet Socialist Republics Concerning the Use of Water Resources in Frontier Waters (1964).	Neman, Pregel, Vistula River Basins	**BY, LT, RU, UA, PL**	*Not reported*
Convention on the International Commission for the Protection of the River Oder against pollution (Wroclaw, 11 April 1996).	Oder/Odra River Basin	**CZ, DE, PL**	**CZ, DE, PL**
Agreement between Finland and Sweden Concerning Transboundary Rivers (2010).		**FI, SE**	**FI, SE**
Agreement between the Government of the Republic of Lithuania and the Government of the Russian Federation on cooperation in the field of environment (29 June 1999).		**LV, RU**	**LV, RU**
Agreement between the Government of the Republic of Estonia and the Government of the Russian Federation on Co-operation in Protection and Sustainable Use of Transboundary Waters (Moscow, 20 August 1997).		**EE, RU**	**EE, RU**
Agreement between the Government of the Russian Federation and the Government of Poland on Cooperation in the field of Environmental Protection (25 August 1993).		**PL, RU**	**PL, RU**
The Agreement between the Republic of Poland and the Federal Republic of Germany on Cooperation in the Field of Water Management at Border Waters (19 May 1992).		**DE, PL**	**DE, PL**
Agreement between the Government of the Republic of Lithuania and the Government of the Republic of Poland on Cooperation in the Use and Protection of Transboundary Waters (2005).		**LT, PL**	**LT, PL**

Title of agreements in force, with place and date of adoption (where available)[25]	Waters/ basins covered[26]	Countries party to the agreement[27]	Parties that reported on the agreement
Agreement between the Latvian Environment, Geology and Meteorology Agency under the Ministry of Environment of the Republic of Latvia and the Environmental Protection Agency of the Republic of Lithuania on Co-operation in the Field of Monitoring and the Exchange of Information on the Status of Surface Water Bodies in Transboundary River Basin Districts.		**LT, LV**	**LT, LV**
Agreement between the Government of the Russian Federation and the Government of the Republic of Belarus concerning Cooperation in Protection and Rational Use of Transboundary Waters (2002).		**BY, RU**	**BY**
The Agreement on Cooperation between the Hydrometeorology Department of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus and the Institute of Hydrometeorology and Water Resources of Poland (2003).		**BY, PL**	*Not reported*
Agreement between the Ministry of Environment of the Republic of Latvia and the Ministry of the Environment of the Republic of Estonia on Cooperation in the Protection and Sustainable use of Transboundary Watercourses (Palanga, 24 October 2003).		**EE, LV**	**EE, LV**
Agreement between the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus and the Environmental Protection Ministry of the Republic of Lithuania on cooperation in the field of environmental protection (14 April 1995).		**BY, LT**	**BY**
Agreement between the Ministry of Environment of the Republic of Lithuania and the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus on Cooperation in the Monitoring and the Exchange of Data on Transboundary Surface Water Bodies (10 April 2008).		**BY, LT**	**BY, LT**
Agreement between the Russian Federation and Lithuania on Cooperation in Environmental Protection (1999).		**LT, RU**	*Not reported*
Agreement between the Joint Research Centre of the Ministry of Environment of Lithuania and the Hydrometeorology Agency of Lithuania, on the one side, and the Kaliningrad Centre on Hydrometeorology and Environmental Monitoring, on the other, concerning Cooperation in Monitoring and Exchange of Data on Transboundary Waters (2003).		**LT, RU**	**LT**

Annex IV – Reporting template

Template for reporting under the Water Convention and for global SDG indicator 6.5.2

Country name: [fill in]

This template or reporting form is in the form of a questionnaire to be filled out. Questions can be either "closed", Yes /No , with appropriate boxes to tick; "open", requiring further information to be supplied, indicated by the words in square brackets [fill in]; or a combination of both. Depending on the country situation, it will not always be necessary to fill in extra information where space is provided for this.

> The questions are divided into four parts: national (section I); by transboundary basin, river, lake or aquifer (section II); list of transboundary waters and information for calculation of the SDG indicator 6.5.2, Proportion of transboundary basin area with an operational arrangement for water cooperation (section III), and final questions (section IV). Please answer open questions very briefly, and in less than 200 words, using bullet points as appropriate. Section II will need to be to completed for each of the transboundary basins, rivers, lakes or aquifers (please just copy the template for these questions and fill out again for each additional transboundary basin, river, lake or aquifer).

The template encourages those reporting to refer to the reporting under other multilateral environmental agreements to which their country is a Party.

I. Transboundary water management at the national level

In this first section, you are requested to provide general information on transboundary water management at the national level. Information on specific transboundary basins, rivers, lakes or aquifers and agreements should be presented in section II and not repeated here.

1. (a) Does your country's national legislation refer to measures to prevent, control and reduce any transboundary impact (art. 2 of the Convention)?

   Yes ❑/No ❑

   If yes, list the main national legislation: [fill in]

   (b) Do your country's national policies, action plans and strategies refer to measures to prevent, control and reduce any transboundary impact?

   Yes ❑/No ❑

   If yes, list the main national policies, action plans and strategies: [fill in]

   (c) Does your country's legislation provide for the following principles?

   Precautionary principle Yes ❑/No ❑

   Polluter pays principle Yes ❑/No ❑

   Sustainable development Yes ❑/No ❑

   (d) Does your country have a national licensing or permitting system for wastewater discharges and other point source pollution (art. 3, para. 1 (b)) (e.g., in industry, mining, energy, municipal, wastewater management or other sec*tors*)?

   Yes ❑/No ❑

   If yes, for which sectors? (please list): [fill in]

   If not, please explain why not (giving the most important reasons) or provide information if there are plans to introduce a licensing or permitting system: [fill in]

   If your country has a licensing system, does the system provide for setting emission limits based on best available technology?

Yes ❑/No ❑

(e) Are the authorized discharges monitored and controlled (art. 3, para. 1 (b))?

Yes ❑/No ❑

If yes, how? (*Please tick the ones applicable*):

Monitoring of discharges ❑

Monitoring of physical and chemical impacts on water ❑

Monitoring of ecological impacts on water ❑

Conditions on permits ❑

Inspectorate ❑

Other means (*please list*): [fill in]

If your country does not have a discharge monitoring system, please explain why not or provide information if there are plans to introduce a discharge monitoring system: [fill in]

(f) What are the main measures which your country takes to reduce diffuse sources of water pollution on transboundary waters (art. 3, para. 1) (*e.g., from agriculture, transport, forestry or aquaculture*)? *The measures listed below relate to agriculture, but other sectors may be more significant. Please be sure to include these under "others"*:

Legislative measures

Norm for uses of fertilizers ❑

Norms for uses of manure ❑

Bans on or norms for use of pesticides ❑

Others (please list): [fill in]

Economic and financial measures

Monetary incentives ❑

Environmental taxes (such as fertilizer taxes) ❑

Others (please list): [fill in] ❑

Agricultural extension services

Technical measures

Source control measures

Crop rotation ❑

Tillage control ❑

Winter cover crops ❑

Others (please list): [fill in] ❑

Other measures

Buffer/filter strips ❑

Wetland reconstruction ❑

Sedimentation traps ❑

Chemical measures ❑

Others (please list): [fill in] ❑

Other types of measures

If yes, please list: [fill in]

(g) What are the main measures which your country takes to enhance water efficiency (art. 3)?

Please tick as appropriate (not all might be relevant)

A regulatory system regarding water abstraction ❑

Monitoring and control of abstractions ❑

Water rights are clearly defined ❑

Water allocation priorities are listed ❑

Water-saving technologies ❑

Advanced irrigation techniques ❑

Demand management activities ❑

Other means (please list) ❑

(h) Does your country apply the ecosystems approach (art. 3, para. 1 (i), and art. 2, para. 1 (d))?

Yes ❑/No ❑

If yes, please describe how: [fill in]

(i) Does your country take specific measures to prevent the pollution of groundwaters (art. 3, para. 1 (k))?

Yes ❑/No ❑

If yes, please list the most important measures: [fill in]

2. Does your country require transboundary environmental impact assessment (EIA)?

Yes ❑/No ❑

Does your country have procedures for transboundary EIA?

Yes ❑/No ❑

If yes, please make reference to the legislative basis (please insert the name and section of the relevant laws). (Please note: If your country is a Party to the Convention on Environmental Impact Assessment in a Transboundary Context, you may refer to your country's report under that Convention.): [fill in]

3. Does your country have transboundary agreements or arrangements for the protection and/or management of transboundary waters (i.e. surface waters or aquifers), whether bilateral, multilateral and/or at the basin level?

Yes ❑/No ❑

If yes, list the bilateral, multilateral and basin agreements (listing for each of the countries concerned): [fill in]

II. Questions for each transboundary basin, river, lake or aquifer

Please complete this second section for each transboundary basin, river, lake or aquifer, or for group of basins covered by the same agreement or arrangement and where conditions are similar. It might also be convenient to group basins or sub-basins for which your country's share is very small.[1] In some instances, you may provide information on both a basin and one or more of its sub-basins, for example, where you have agreements[2] on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares the basin or aquifer or even prepare a joint report for shared basins. General information on transboundary water management at the national level should be provided in section I and not repeated here.

Please reproduce the whole section II with its questions for each transboundary basin, river, lake or aquifer, or group of basins for which you will provide a reply.

Name of the transboundary basin, river, lake or aquifer, or group thereof, list of the riparian States, and country's share of the basin: [fill in]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin (art. 9)?

   One or more agreements or arrangements exist and are in force ❑

   Agreement or arrangement developed but not in force ❑

   Agreement or arrangement developed, but not in force for all riparians ❑

   Please insert the name of the agreement or agreements or arrangements: [fill in]

   Agreement or arrangement is under development ❑

   No agreement ❑

   If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [fill in]

If there is no agreement or arrangement and no joint body for the transboundary basin, river, lake or aquifer then jump to question 4; if there is no agreement, but a joint body then go to question 3.

Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, river, lake or aquifer or group of basins or sub-basins

2. (a) Does this agreement or arrangement specify the basin area subject to cooperation?

   Yes ❑/No ❑

   If yes, does it cover the entire basin, or group of basins, and all riparian States?

   Yes ❑/No ❑

   If not, what does it cover?: [fill in]

   Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

   Yes ❑/No ❑

   Which States (including your own) are bound by the agreement or arrangement? *(Please list)*: [fill in]

   (b) Are connected[3] aquifers (or groundwater bodies) covered by the agreement/arrangement?

---

1 In principle, section 2 should be submitted for every transboundary basin, river, lake or aquifer in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g. below 1 per cent.

2 In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

3 Either hydraulically connected to the watercourse or those located within the basin area.

Yes ❑/No ❑

(c) What is the sectoral scope of the agreement or arrangement?

All water uses ❑

A single water use or sector ❑

Several water uses or sectors ❑

If several water uses or sectors, please list (check as appropriate):

Water uses or sectors

Industry ❑

Agriculture ❑

Transport (e.g. navigation) ❑

Households ❑

Energy: hydropower and other energy types ❑

Tourism ❑

Nature protection ❑

Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement (art. 9)?

Procedural and institutional issues

Dispute and conflict prevention and resolution ❑

Institutional cooperation (joint bodies) ❑

Consultation on planned measures ❑

Mutual assistance (art. 15) ❑

Topics of cooperation

Joint vision and management objectives ❑

Joint significant water management issues ❑

Navigation ❑

Environmental protection (ecosystem) ❑

Water quality ❑

Water quantity or allocation ❑

Cooperation in addressing floods ❑

Cooperation in addressing droughts ❑

Climate change adaptation ❑

Monitoring and exchange

Joint assessments ❑

Data collection and exchange (art. 13) ❑

Joint monitoring (art. 11) ❑

Maintenance of joint pollution inventories ❑

Elaboration of joint water quality objectives ❑

Common early warning and alarm procedures (art. 14) ❑

Exchange of experience between riparian States ❑

Exchange of information on planned measures ❑

Joint planning and management

Development of joint regulations on specific topics ❑

Development of international or joint river, lake or aquifer basin management or action plans ❑

Management of shared infrastructure ❑

Development of shared infrastructure ❑

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any (*please describe, if applicable*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of an operational joint body or joint bodies for this agreement/arrangement (art. 9)?

Yes ❑/No ❑

If no, why not? (please explain): [fill in]

Where there is a joint body (or bodies)

(a) If there is a joint body, which kind of joint body (*please tick one*)?

Plenipotentiaries ❑

Bilateral commission ❑

Basin or similar commission ❑

Other (*please describe*): [fill in]

(b) Does the joint body cover the entire transboundary basin or sub-basin, river, lake or aquifer, or group of basins, and all riparian States?

Yes ❑/No ❑

(c) Which States (including your own) are member of the joint body? *(Please list)*: [fill in]

(d) Does the joint body have any of the following features (*please tick the ones applicable*)?

A secretariat

If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe): [fill in]

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [fill in]

Other features (please list): [fill in]

(e) What are the tasks and activities of this joint body (art. 9, para. 2)?[4]

Identification of pollution sources ❑

Data collection and exchange ❑

Joint monitoring ❑

Maintenance of joint pollution inventories ❑

Setting emission limits ❑

Elaboration of joint water quality objectives ❑

Management and prevention of flood or drought risks ❑

Preparedness for extreme events, e.g. common early warning and alarm procedures ❑

Water allocation and/or flow regulation ❑

Policy development ❑

Control of implementation ❑

Exchange of experience between riparian States ❑

Exchange of information on existing and planned uses of water and related installations ❑

Settling of differences and conflicts ❑

Consultations on planned measures ❑

Exchange of information on best available technology ❑

Participation in transboundary EIA ❑

Development of river, lake or aquifer basin management or action plans ❑

Management of shared infrastructure ❑

Addressing hydromorphological alterations ❑

Climate change adaptation ❑

Joint communication strategy ❑

Basin-wide or joint public participation and consultation of, for example, basin management plans ❑

Joint resources to support transboundary cooperation ❑

Capacity-building ❑

Any other tasks (*please list*): [fill in]

(f) What are the main difficulties and challenges that your country faces with the operation of the joint body, if any?

Governance issues ❑

Please describe, if any: [fill in]

Unexpected planning delays ❑

Please describe, if any: [fill in]

Lack of resources ❑

Please describe, if true: [fill in]

[4] This may include tasks according to the agreement or tasks added by the joint body or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

Lack of mechanism for implementing measures ❑

Please describe, if true: [fill in]

Lack of effective measures ❑

Please describe, if true: [fill in]

Unexpected extreme events ❑

Please describe, if any: [fill in]

Lack of information and reliable forecasts ❑

Please describe, if any: [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(g) If not all riparian States are members of the joint body how does the body cooperate with them?

No cooperation ❑

They have observer status ❑

Other (*please describe*): [fill in]

(h) Does the joint body or its subsidiary bodies meet regularly?

Yes ❑/No ❑

If yes, how frequently does it meet? [fill in]

(i) What are the main achievements with regards to the joint body?: [fill in]

(j) Are representatives of international organizations invited to the meetings of the joint body (or bodies) as observers?

Yes ❑/No ❑

(k) Did the joint body ever invite a coastal State to cooperate (art. 9, paras. 3 and 4)?

Yes ❑/No ❑

If yes, please give details. If no, why not?: [fill in]

4. Is there a joint or coordinated management plan (such as an action plan or a common strategy) or have joint objectives been set specifically on the transboundary waters subject to cooperation (art. 9, para. 2 (f)) ?

Yes ❑/No ❑

If yes, please provide further details: [fill in]

5. How is the transboundary basin, river, lake or aquifer protected, including the protection of ecosystems, in the context of sustainable and rational water use (art. 2, para. 2 (b), and art. 3, para. 1 (i)) ?

Afforestation ❑

Restoration of ecosystems ❑

Environmental flow norms ❑

Groundwater measures (e.g., protection zones) ❑

Other measures (*please list*): [fill in]

6. (a) Does your country exchange information and data with other riparian States in the basin (art. 13)?

Yes ❑/No ❑

(b) If yes, on what subjects are information and data exchanged?

Environmental conditions (art. 13, para. (1) (a)) ❑

Research activities and application of best available techniques (arts. 5, 12 and 13, para. 1 (b)) ❑

Emission monitoring data (art. 13, para. 1 (c)) ❑

Planned measures taken to prevent, control or reduce ❑

transboundary impacts (art. 13, para. 1 (d)) ❑

Point source pollution sources ❑

Diffuse pollution sources ❑

Existing hydromorphological alterations (dams, etc.) ❑

Discharges ❑

Water abstractions ❑

Future planned measures with transboundary impacts, such as infrastructure development ❑

Other subjects (*please list*): [fill in] ❑

(c) Is there a shared database or information platform?

Yes ❑/No ❑

(d) Is the database publicly available?

Yes ❑/No ❑

If yes, please provide the web address: [fill in]

(e) What are the main difficulties and challenges to data exchange, if applicable? (*please describe*): [fill in]

(f) What are the main benefits of data exchange on the transboundary waters subject to cooperation? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, river, lake or aquifer (art. 11, para. 1)?

Yes ❑/No ❑

(a) If yes, what does the joint monitoring cover?

	Covered?	Hydrological	Ecological	Chemical
Border surface waters	❑	❑	❑	❑
Surface waters in the entire basin	❑	❑	❑	❑
Surface waters on the main watercourse	❑	❑	❑	❑
Connected aquifers (or groundwaters)	❑	❑	❑	❑
Unconnected aquifers (or groundwaters)	❑	❑	❑	❑

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations ❑

Joint and agreed methodologies ❑

Joint sampling ❑

Common monitoring network ❑

Common agreed parameters ❑

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, river, lake or aquifer (art. 11)?

Yes ❑/No ❑

If yes, please provide the date of the last or only assessment, the frequency and scope (e.g. surface waters or groundwaters only, pollution sources, etc.) of the assessment: [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes ❑/No ❑

If yes, is the basis an international or regional standard (please specify which) or has it been adapted from the national standards of the riparian States? [fill in]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution (art. 14)?

Notification and communication ❑

Coordinated or joint alarm system for accidental water pollution ❑

Other (*please list*): [fill in]

No measures ❑

If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events (art. 14)?

Notification and communication ❑

Coordinated or joint alarm system for floods ❑

Coordinated or joint alarm system for droughts ❑

Joint climate change adaptation strategy ❑

Joint disaster risk reduction strategy ❑

Other (*please list*): [fill in]

No measures ❑

If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation (art. 15)?

Yes ❑/No ❑

If yes, please provide a brief summary: [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, river, lake or aquifer? (art. 16)?

Yes ❑/No ❑

If yes, how? (please tick all applicable) (Please note: If your country is a Party to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), you may refer to your country's report under that Convention.)

Stakeholders have observer status in a joint body ❑

Yes ❑/No ❑

If yes, please specify the stakeholders for each joint body: [fill in] ❑

Availability of information to the public ❑

Yes ❑/No ❑

Consultation on planned measures or river basin management plans[5] ❑

Yes ❑/No ❑

Public involvement ❑

Yes ❑/No ❑

Other (*please specify*): [fill in]

Please remember to complete section II for each of the transboundary basins, rivers, lakes or aquifers. Please also remember to attach copies of agreements, if any.

[5] Or, where applicable, aquifer management plans.

III. Calculation of SDG indicator 6.5.2

Methodology

Using the information gathered in section II, the information gathered in this section allows for the calculation of the Sustainable Development Goal global indicator 6.5.2, which is defined as *the proportion of transboundary basins' area with an operational arrangement for water cooperation*.

The value of the indicator at the national level is derived by **adding up the surface area in a country of those transboundary surface water catchments and transboundary aquifers (i.e. 'transboundary' basins') that are covered by an operational arrangement and dividing the obtained area by the aggregate total area in a country of all transboundary basins (both catchments and aquifers).**[6]

Transboundary basins are basins of transboundary waters, that is, of any surface waters (notably rivers, lakes) or groundwaters which mark, cross or are located on boundaries between by two or more States. For the purpose of the calculation of this indicator, for a transboundary river or lake, the basin area is determined by the extent of its catchment. For groundwater, the area to be considered is the extent of the aquifer.

An "**arrangement for water cooperation**" is a bilateral or multilateral treaty, convention, agreement or other formal arrangement among riparian countries that provides a framework for cooperation on transboundary water management.

For an arrangement to be considered "**operational**" all the following criteria needs to be fulfilled:

- There is a joint body, joint mechanism or commission (e.g. a river basin organization) for transboundary cooperation,
- There are regular formal communications between riparian countries in form of meetings,
- There is a joint or coordinated water management plan(s), or joint objectives have been set, and
- There is a regular exchange of data and information.

Calculation of indicator 6.5.2

Please list below the surface waters (rivers and lakes) and aquifers in your country's territory that are transboundary and provide the following information for each of them:

- the surface area of their basins (the catchment of rivers or lakes and the aquifer in the case of groundwater) within the territory of your country (in km^2); and
- whether they are covered by a cooperation arrangement that is operational according to the above criteria (please consider the replies to the questions in section II, in particular questions 1, 2, 3, 4 and 6).

[6] Draft step-by-step monitoring methodology for SDG indicator 6.5.2 on transboundary cooperation can be referred to for details of the necessary data, the definitions and the calculation. Available from http://www.unwater.org/publications/step-step-methodology-monitoring-transboundary-cooperation-6-5-2/

Transboundary river or lake basins [please add rows as needed]

Name	Countries shared with	Surface area (in km^2) within the territory of the country	Covered by an operational arrangement (yes/no)
Sub-total: area of surface water catchments covered by an operational arrangements (in km^2) [A]			
Total area of surface water catchments (in km^2) [B]			

Transboundary aquifers [please add rows as needed]

Name	Countries shared with	Surface area (in km^2)[7] within the territory of the country	Covered by an operational arrangement (yes/no)
Sub-total: surface area of transboundary aquifers covered by operational arrangements (in km^2) [C]			
Total surface area of transboundary aquifers (in km^2) [D]			

Indicator value for the country

((A + C)/(B + D)) x 100% =

Additional information

If the respondent has comments that clarify assumptions or interpretations made for the calculation, or the level of certainty of the spatial information, please write them here:

Spatial information

If a map (or maps) of the transboundary surface water catchments and transboundary aquifers (i.e. 'transboundary basins') is available, please attach that. Ideally, shapefiles of the basin and aquifer delineations that can be viewed in Geographical Information Systems should be sent.

[7] For a transboundary aquifer, the extent is derived from the aquifer system delineation which is commonly done by relying on information of the subsurface (notably the extent of geological formations). As a general rule, the delineation of aquifer systems is based on the delineation of the extent of the hydraulically connected water-bearing geological formations. Aquifer systems are three-dimensional objects and the aquifer area taken into account is the projection on the land surface of the system. Ideally, when different aquifer systems not hydraulically connected are vertically superposed, the different relevant projected areas are to be considered separately, unless the different aquifer systems are managed conjunctively, if possible.

IV. Final questions

1. What are the main challenges your country faces in implementing the Convention and cooperating on transboundary waters? (*Please describe*): [fill in]

2. What have been the main achievements in implementing the Convention and cooperating on transboundary waters? What were the keys to achieving that success? (*Please describe concrete examples):* [fill in]

3. Name and contact details of the person(s) who filled out the questionnaire (*please insert*): [fill in]

   Date: [fill in] Signature: [fill in]

4. Please include any additional information on the process of preparing the report (e.g., whether there was an exchange or consultation within the joint body or with riparian countries), in particular which institutions have been consulted (*please describe*): [fill in]

5. If you have any other comments please add them here (*insert comments*): [fill in]

Thank you very much for taking the time to complete this report.

Akkem River within the Ob River Basin

PROGRESS ON TRANSBOUNDARY WATER COOPERATION UNDER THE WATER CONVENTION

Report on implementation of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), serviced by the United Nations Economic Commission for Europe (ECE) requires Parties to prevent, control and reduce transboundary impact, use transboundary waters in a reasonable and equitable way and ensure their sustainable management. Parties bordering the same transboundary waters have to cooperate by entering into specific agreements and establishing joint bodies. As a framework agreement, the Convention does not replace bilateral and multilateral agreements for specific basins or aquifers; instead, it fosters their establishment and implementation, as well as further development. In 2003, the Water Convention was amended to allow accession by countries outside the ECE region. The amendment entered into force on 6 February 2013, turning the Water Convention into a legal framework for transboundary water cooperation worldwide. As of 1 March 2016, all Member States of the United Nations can accede to the Convention.

Another important step in the evolution of the Water Convention, was the decision taken by the Parties in 2015 to introduce a reporting mechanism by which to monitor and assess progress in the implementation of the Convention. A pilot reporting exercise took place in 2017 and 2018, the results of which are presented in this synthesis report. The report closely mirrors the structure of the reporting template. The introduction provides the context to the reporting process and its results, after which the report summarizes the responses to the main parts of the reporting template, namely: on transboundary water management at the national level; transboundary agreements and arrangements for transboundary waters; joint bodies for transboundary waters; and activities related to the implementation of transboundary water cooperation. In addition, a summary of responses to the questions related to the general challenges and achievements in implementing the Water Convention and transboundary water cooperation is provided.

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