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Item 3 and 4 of the provisional agenda

Special session: "Our waters, our future: Transboundary water cooperation to power climate resilience"

Adapting to climate change in transboundary basins

Mainstreaming transboundary water management and cooperation into Nationally Determined Contributions and National Adaptation Plans

Submitted by the Netherlands and Switzerland with support from the secretariat

Summary

Decisions 1/CMA.5, on the outcome of the first global stocktake, and 2/CMA.5 on the global goal on adaptation,[a,b] adopted at the fifth session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (Dubai, United Arab Emirates, 30 November–13 December 2023), underscore the importance of transboundary cooperation to progress towards the goals of the Paris Agreement. Building on this, the Task Force on Water and Climate under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), at its fourteenth meeting (Geneva, 28 February 2024), requested to develop an action-oriented document on mainstreaming transboundary water management and cooperation into Nationally Determined Contributions and National Adaptation Plans. Such decision was confirmed by the Working Groups on Integrated Water Resources Management and on Monitoring and Assessment at their fifth joint meeting (Geneva, 6–8 May 2024, see ECE/MP.WAT/WG.1/2024/2 (forthcoming)). The present document was prepared with the help of a consultant in summer 2024, and in consultation with a few countries whose Nationally Determined Contributions and/or National Adaptation Plans cover transboundary water management.

The document provides a global analysis of how transboundary water management and cooperation are reflected in Nationally Determined Contributions and National Adaptation Plans, together with recommendations on how to strengthen their integration into these policy frameworks. Examples of countries that have made transboundary water management and cooperation a priority in their climate policies are showcased. This

document is intended to provide countries sharing transboundary waters with guidance on how to integrate transboundary cooperation actions into their Nationally Determined Contributions and National Adaptation Plans in order to reduce transboundary risks from climate impacts and take advantage of the benefits of cooperation to strengthen climate action. The relevance and timeliness of this research is also driven by the fact that countries are working to revise their Nationally Determined Contributions by spring 2025 and by the ongoing development of National Adaptation Plans in many countries in 2024–2025. At the same time, experience in mainstreaming transboundary water management and cooperation is currently limited. It is therefore foreseen that the efforts spurred by this document will enhance understanding of relevant challenges and solutions and allow further refinement of its recommendations in the future.

The Meeting of the Parties is invited to:

(a) Express gratitude to the lead Parties, the lead author, the secretariat, as well as the partners involved, for developing the action-oriented document;

(b) Review and provide comments on the action-oriented document and ask the lead Parties, with the support of the secretariat, to address these comments and finalize the document in advance of the twenty-ninth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (Baku, 11–22 November 2024);

(c) Encourage countries and partners to use and promote the action-oriented document among water and climate communities so that its findings and recommendations for better mainstreaming transboundary water management and cooperation into climate policy frameworks are applied;

(d) Entrust the Task Force on Water and Climate to regularly review implementation of the action-oriented document and progress in this area and, if needed, revise the action-oriented document based on lessons learned and experiences garnered from its use and implementation, as well as future developments in global climate and water processes.

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[a] FCCC/PA/CMA/2023/16/Add.1.

[b] Ibid.

I. Executive summary

1. This document emphasizes the critical importance of integrating transboundary water management and cooperation into national climate policies, particularly Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs). As climate change exacerbates water scarcity, flooding and variability, managing shared water resources effectively across borders becomes essential for ensuring water security and climate resilience.

2. The Intergovernmental Panel on Climate Change (IPCC) has highlighted the significant relationship between climate change and water resources, which are often transboundary in nature. Cross-border cooperation is necessary to address challenges such as droughts, floods and water pollution. It also enables countries to adapt to climate change more efficiently though reducing uncertainties by sharing data, enlarging the planning space, better prioritizing measures, as well as sharing costs and benefits. By fostering collaboration, countries can ensure sustainable water use, enhance infrastructure resilience, and promote regional stability.

3. The document provides:

- A global analysis of how transboundary water management and cooperation are reflected in NAPs and NDCs.
- Recommendations on how to strengthen the integration of transboundary water management and cooperation into these policy frameworks.
- Examples of countries, such as Albania, Bangladesh, Guinea, Jordan and Kazakhstan, that have made transboundary water management and cooperation a priority in their climate policies.

4. The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), its Task Force on Water and Climate and the Global Network of Basins Working on Climate Change Adaptation in Transboundary Basins are key platforms that can support the development of joint adaptation strategies across borders. Indeed, more action is needed in this area, as also revealed by the the third and the most recent report *Progress on Transboundary Water Cooperation: Mid-term Status of SDG Indicator 6.5.2, with a Special Focus on Climate Change*.[1] Countries must establish climate-proof transboundary agreements, create joint bodies to manage shared water resources, and develop transboundary vulnerability assessments and adaptation strategies that are integrated into NDCs and NAPs.

5. Following the conclusion of the first Global Stocktake of the Paris Agreement at the twenty-eighth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) (Dubai, United Arab Emirates, 30 November–12 December 2023) and the adoption of the United Arab Emirates Framework for Global Climate Resilience, there is now a clear mandate to enhance international collaboration in managing shared water resources for climate action. These frameworks underscore the importance of building adaptive capacity and resilience, both of which are closely linked to effective water management.

6. Now is the time to integrate transboundary water management into NAPs because:

- Adaptation strategies must be comprehensive, reflecting shared vulnerabilities and coordinated efforts to manage climate risks.
- Transboundary cooperation can enhance resilience through joint planning, such as shared early warning systems, flood and drought management, and shared data systems.
- Joint adaptation strategies can lead to more efficient use of resources and help attract international climate finance, particularly for large-scale infrastructure projects.

[1] United Nations publication, ECE/MP.WAT/76.

7. By incorporating transboundary water management into NAPs, countries can ensure more cohesive climate adaptation strategies that are better aligned with regional needs and help mitigate conflicts over shared water resources.

8. Given the call at the twenty-eighth session of the Conference of the Parties to UNFCCC for countries to raise the ambition of their NDCs and submit revised versions by 2025, it is timely to:

- Set clear targets and indicators for transboundary water cooperation in NDCs, such as joint management of water resources and cooperative projects such as transboundary wetland restoration, which can also contribute to climate mitigation by enhancing carbon sequestration.
- Leverage existing transboundary water agreements and ensure that they are referred to in the NDC revision process, helping to align climate goals with regional cooperation frameworks.
- Seek financing for improving transboundary water management, leverage international climate funds and create joint financial mechanisms, such as pooled funds, to support regional cooperation and shared water resource management.
- Strengthen the role of transboundary basin organizations in the process of NDC development and implementation as main facilitators for climate-informed transboundary management and cooperation at the basin level.

9. By incorporating the above-mentioned elements into NDCs, countries can raise their ambition for both adaptation and mitigation, while also strengthening regional cooperation and resilience to shared climate risks.

II. Background: the linkages and the importance of integrating transboundary water management, cooperation and climate change

10. Climate change has a significant impact on water resources, influencing the availability, quality and distribution of fresh water. Changes in precipitation patterns, increasing frequency of extreme weather events and rising temperatures can lead to water scarcity or flooding.

11. The most recent IPCC reporting cycle[2] underscores the critical relationship between climate change adaptation and mitigation and the provision of basic services such as water supply and sanitation, which require proper water management and cooperation on water within and between countries. When climate change exacerbates water scarcity, that affects water availability and its quality. Increased precipitation as a result of climate change may lead to flooding, affecting water infrastructures and water quality. Increases in the frequency of extreme weather events consequently lead to disruption of these essential services. Adaptation strategies are needed to enhance the resilience of water infrastructure and services, ensuring reliable access to clean water and sanitation. Mitigation efforts, such as reducing greenhouse gas emissions, can lessen the long-term impacts of climate change on water resources. At the same time, water management and the water supply and sanitation sector can also greatly contribute to lowering emissions, while water availability is central to many mitigation efforts. Integrated approaches embracing water management, climate adaptation and mitigation are vital for sustaining basic services in a changing climate. Only in this way will they be able to contribute jointly with other basic social services – such as health, food and education – to building community resilience and adaptive capacity.

12. In all, 153 countries share transboundary rivers, lakes and aquifers, which account for approximately 60 per cent of the fresh water available globally and sustain around 40 per

[2] V. Masson-Delmotte and others, eds., *Climate Change 2021: The Physical Science Basis*. *Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change Intergovernmental Panel on Climate Change* (United Kingdom of Great Britain and Northern Ireland and New York, Cambridge University Press, 2021).

cent of the world's population. Transboundary water management and cooperation are therefore essential for effective climate change adaptation and mitigation, as highlighted by IPCC. Climate change exacerbates water-related challenges, such as droughts, floods and changing precipitation patterns beyond national boundaries, affecting all countries that share water resources. Effective cooperation between countries is therefore crucial for managing these shared water resources sustainably, ensuring water security, and reducing climate-related risks. In addition, cooperation helps countries to adapt to climate change more efficiently though reducing uncertainties by sharing data, enlarging the planning space, better prioritization of measures, as well as sharing costs and benefits. Thus, collaborative efforts in transboundary water management can enhance resilience and promote efficient water use, as well as support climate change mitigation strategies by maintaining healthy ecosystems, promoting regional stability and reducing conflict over water resources.

13. Integrating water supply, sanitation and transboundary water management and cooperation into national climate policy, such as Nationally Determined Contributions and National Adaptation Plans, is crucial for effective climate adaptation and mitigation. Such integration ensures a coordinated approach to managing shared water resources, enhancing resilience to climate impacts, and promoting sustainable development. It allows countries to address water security, improve public health, and reduce climate-related vulnerabilities comprehensively across water dependent sectors, including agriculture and energy production. By incorporating these elements into national climate policies, countries can leverage international cooperation to achieve their climate goals and ensure the provision of essential services.

14. At the same time, water supply and sanitation policies, strategies and plans, as well as transboundary water management, need to integrate climate adaptation and mitigation so that they are responsive to and contribute to mitigating the impacts of climate change. Therefore, bridging national climate policy with water management policies and strategies is crucial. Moreover, climate policy implementation through coordinated action with line ministries responsible for water management and sanitation is needed to enhance the ability to respond to climate impacts. Such alignment of climate and water policies and their implementation will foster regional cooperation (including across countries), support sustainable economic growth, and help meet national and global climate and water-sanitation commitments.

15. The first Global Stocktake of the Paris Agreement, concluded at the twenty-eighth session of the Conference of the Parties to UNFCCC, and the United Arab Emirates Framework for Global Climate Resilience (see box 1), also adopted at said twenty-eighth session, provide critical opportunities to integrate water supply, sanitation and transboundary water management and cooperation into national climate policies. The decision text from the twenty-eighth session highlights the need to transition from fossil fuels and to align national adaptation efforts with the global goal on adaptation, which includes transboundary considerations as well as improving water management and sanitation services. By leveraging these global frameworks, countries can enhance transboundary water cooperation, data sharing and resource allocation, ensuring that climate policies are comprehensive and effective in addressing water-related challenges and promoting resilience.

Box 1

United Arab Emirates Framework for Global Climate Resilience: thematic targets and transboundary cooperation

The United Arab Emirates Framework for Global Climate Resilience[a] sets out seven thematic targets to strengthen global efforts in adapting to climate change impacts by 2030: the first thematic target is specifically focused on water and sanitation, whereas achieving the other targets requires proper water management within and between countries. These targets encompass four complementary policy targets that consist of: comprehensive risk assessments to understand climate hazards, exposure and vulnerabilities; the development of gender-responsive and transparent NAPs; the mainstreaming of adaptation strategies into all relevant policies and planning processes; and the establishment of robust systems for monitoring, evaluation and learning to enhance continuous improvement in adaptation efforts. The Framework recognizes that "climate change impacts are often transboundary in nature and may

involve complex, cascading risks that can benefit from collective consideration and knowledge-sharing, climate-informed transboundary management and cooperation on global adaptation solutions."[b]

The seven thematic targets to be achieved by 2030 and progressively beyond are:

(a) Water-sanitation: Significantly reducing climate-induced water scarcity and enhancing climate resilience to water-related hazards towards a climate-resilient water supply, climate-resilient sanitation and towards access to safe and affordable potable water for all;

(b) Food-agriculture: Attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all;

(c) Health: Attaining resilience against climate change-related health impacts, promoting climate-resilient health services, and significantly reducing climate-related morbidity and mortality, particularly in the most vulnerable communities;

(d) Ecosystems: Reducing climate impacts on ecosystems and biodiversity, and accelerating the use of ecosystem-based adaptation and nature-based solutions, including through their management, enhancement, restoration and conservation and the protection of terrestrial, inland water, mountain, marine and coastal ecosystems;

(e) Infrastructure and human settlements: Increasing the resilience of infrastructure and human settlements to climate change impacts to ensure basic and continuous essential services for all, and minimizing climate-related impacts on infrastructure and human settlements;

(f) Poverty eradication: Substantially reducing the adverse effects of climate change on poverty eradication and livelihoods, in particular by promoting the use of adaptive social protection measures for all;

(g) Cultural heritage: Protecting cultural heritage from the impacts of climate-related risks by developing adaptive strategies for preserving cultural practices and heritage sites and by designing climate-resilient infrastructure, guided by traditional knowledge, Indigenous Peoples' knowledge and local knowledge systems.

[a] Decision 2/CMA.5.

[b] Decision 2/CMA.5., para. 18.

III. Introduction to the present document

16. This action-oriented document aims to illustrate why and how to integrate transboundary water management and cooperation into climate policies. It has a global scope and builds on concrete examples and case studies at the regional and country levels. It illustrates why said integration is crucial and beneficial, highlighting the interconnectedness of transboundary water management and cooperation and climate resilience. The document also provides recommendations on how to achieve such integration.

17. The document presents the results of a global analysis on how transboundary water management and cooperation are currently integrated into two key climate policy documents, the NAPs and the NDCs. This includes illustrative boxes and case studies from countries that have achieved such integration, as those can serve as inspiration for other countries.

18. Based on such analysis, the document then provides suggestions and recommendations on strengthening the integration of transboundary water management and cooperation, first into NAPs, and then into NDCs, by outlining step-by-step processes for policymakers and stakeholders to follow.

19. The document advocates for this integration by detailing the underlying reasons, such as the interconnected nature of water, socioeconomics and environment, and the compounded impacts of climate change on society and explains why transboundary water cooperation is

essential for the development and implementation of cohesive climate policies and, consequently, the building of climate resilience.

20. By addressing these points, the document aims to foster a holistic approach to water and climate policy at the national, transboundary and regional levels, ensuring sustainable and resilient water services globally.

21. The primary audience for this document includes:

- Climate stakeholders: policymakers, experts from Governments, academia and organizations involved in climate adaptation and mitigation.
- Transboundary water managers: authorities and institutions managing shared water resources, transboundary basin and regional organizations.
- Water managers, water supply, sanitation and hygiene stakeholders: agencies and organizations responsible for providing water and sanitation services.

22. The document has been prepared in the framework of the Water Convention. Since 2006, work under the Convention, in particular under its Task Force on Water and Climate, has supported the integration of climate and water consideration and has led to the development of guidance material (e.g., the *Guidance on Water and Adaptation to Climate Change*[3] or the *Words into Action Guidelines: Implementation Guide for Addressing Water-related Disasters and Transboundary Cooperation*)[4] and collections of good practices,[5] which are also relevant to the objectives of this action-oriented document.

23. As experience in mainstreaming transboundary water management and cooperation into NDCs and NAPs is currently limited, it is foreseen that the Task Force on Water and Climate will review the lessons learned from the implementation of the action-oriented document and, if needed, further refine its recommendations.

IV. How is transboundary water management and cooperation currently reflected in National Adaptation Plans and Nationally Determined Contributions?

24. To inform this action-oriented document, an analysis was conducted of the integration of transboundary water management and cooperation within climate policy frameworks, specifically focusing on NAPs and NDCs.

25. To assess the inclusion of transboundary water management and cooperation in NDCs, the NDC-SDG Connections tool[6] and the UNFCCC NDC Registry[7] were used. The NDC-SDG Connections tool is an analytical platform designed to evaluate and visualize the linkages between NDCs[8] and the Sustainable Development Goals. It provides a comprehensive assessment of how countries' climate commitments align with the broader development agenda outlined in the Sustainable Development Goals. The tool categorizes the level of priority given to various topics within NDCs, including "transboundary water management", as well as targets 6.1 and 6.2 of the Sustainable Development Goal on the achievement of, respectively, universal and equitable access to safe and affordable drinking water, and adequate and equitable sanitation, across 197 countries. It assigns scores to each country, indicating whether a topic is considered a "high priority", an "average priority" or a "low priority", or if it is "not mentioned" at all. This classification system helps to identify the integration of and emphasis placed on specific issues within national climate policies.

[3] United Nations publication, ECE/MP.WAT/30.
[4] United Nations publication, ECE/MP.WAT/56.
[5] *Water and Climate Change Adaptation in Transboundary Basins: Lessons Learned and Good Practices* (United Nations publication, ECE/MP.WAT/45).
[6] See https://klimalog.idos-research.de/ndc-sdg/sdg/6.
[7] See https://unfccc.int/NDCREG.
[8] Those submitted to the United Nations Framework Convention on Climate Change (UNFCCC) up to December 2023.

26. Unlike NDCs, no analogous tool exists for NAPs. Therefore, the 57 NAPs submitted to the UNFCCC NAP Registry[9] up to September 2024 were all reviewed manually. Countries were classified based on the same priority scale used by the NDC-SDG Connections tool.

27. All information compiled from the analysis of NAPs and NDCs was consolidated into a database containing detailed insights into the integration of transboundary water management and cooperation across different national climate policies.

A. Analysing the integration of transboundary water management and cooperation into National Adaptation Plans

28. In the analysis of the inclusion of transboundary water management and cooperation in the 57 NAPs submitted to the UNFCCC NAP Registry by September 2024, the methodology involved searching manually for key terminology related to transboundary water cooperation, including terms such as “transboundary”, “cross-border”, “regional and international cooperation”, “water basin”, “watershed” and “water management”. Variations of these terms to ensure comprehensive coverage were included in the search. For NAPs submitted in French and Spanish, translated versions of the search terms were used in the analysis. Countries were classified based on the same priority scale used by the NDC-SDG Connections tool.

29. Among the 57 submitted NAPs there are 11 countries for which transboundary water cooperation does not apply as they are island States. Table 1 shows the set of countries where the analysis found that the integration of transboundary water cooperation into their NAP could be ranked as “high priority” or “average priority”.

Table 1
Countries currently integrating transboundary water management and cooperation into their National Adaptation Plans as “average priority” or “high priority”

Priority level	*Countries*	
High	Albania	South Sudan
	Argentina	State of Palestine
	Bangladesh	Timor Leste
Average	Brazil	Pakistan
	Cambodia	Sierra Leone
	Central African Republic	Sudan
	Chad	Thailand
	Kenya	Uruguay
	Niger	

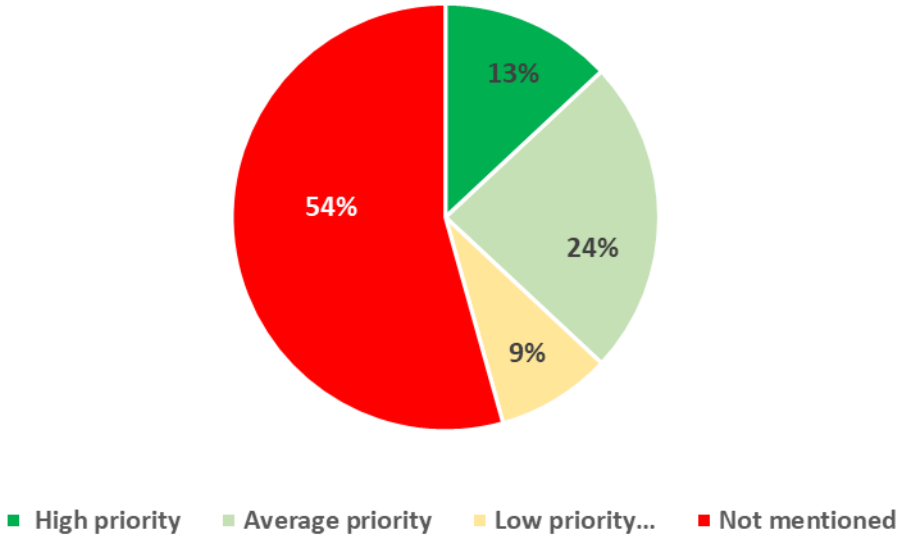
30. Figure 1 shows the classification of transboundary water management and cooperation integration into NAPs only for countries where this can apply (i.e. surface water or groundwater bodies can run across borders), including the percentage of countries that fall under each classification.

31. The result is that 13 per cent of the NAPs, for which cross-border and transboundary waters apply, were found to integrate transboundary water management or cooperation as a “high priority”. Another set of NAPs, corresponding to 24 per cent, do include aspects of transboundary water cooperation but this issue is normally either mentioned as a background issue or in the context of the water resources references made in the NAP, but without singling out the above-mentioned topics as priority for adaptation. A set of NAPs, corresponding to 9 per cent, have been classified as having integrated transboundary water

[9] See https://napcentral.org/submitted-NAPs.

management as "low priority", meaning transboundary issues might have been reflected but for other sectors (e.g., transport, migration), or emphasis is placed on river basin management but with no specific references being made to transboundary waters.

Figure 1
Integration of transboundary water management and cooperation among submitted National Adaptation Plans with cross-border water bodies



32. Brief case studies, in the form of boxes 2 and 3 below, show how transboundary water management and cooperation are included in the NAPs of, respectively, Albania, and Bangladesh. Those are two of the countries where the analysis concluded that these topics are included in their respective NAPs as a "high priority".

Box 2
Integration of transboundary water management and cooperation into the National Adaptation Plan of Albania[a]

Albania is highly dependent on its water resources for various sectors such as agriculture, energy and domestic use. While the country comprises seven river basins (Drin-Buna, Ishem, Erzen, Mat, Seman, Shkumbin, Vjosa), two of them are transboundary basins (Drin-Buna and Vjosa) shared with neighbouring countries such as Greece, Montenegro and North Macedonia.

The country has developed an Integrated Water Resources Management Strategy for the period 2018–2027 to promote the coordinated development and management of water, land and related resources, in order to maximize the resulting economic and social benefits in an equitable manner without compromising the sustainability of vital ecosystems. Climate change impacts were reflected in the Integrated Water Resources Management Strategy to enhance resilience of water resources against climate change. However, the NAP of Albania explains that, as such, the Strategy does not develop detailed action plans for the different sectors (i.e. agriculture, energy, water supply) but will include an overall action plan that will serve as an overall policy framework setting conditions for water sector-wide related strategies.

Following on from the Strategy, priority action 8 of the NAP of Albania outlined specific measures for concrete transboundary watersheds. First, two pilots were launched for the Drin-Buna River basins. These comprise the development of River Basin Management Plans aiming at considering climate change impacts, especially regarding drought and flood risks. Indeed, after the formulation of the NAP, the Drin-Buna River Basin Management Plan was approved and is currently being implemented. Said Management Plan is expected to be revised to further strengthen transboundary cooperation within the basins.

The NAP also reflects on the development of the River Basin Management Plan for the Vjosa transboundary basin. Currently a Flood Risk Management Plan for this basin is being prepared with the expertise of a project on Flood Risk Management Plans for the Erzen, Ishem, Shkumbin, Seman and Vjosa Rivers, through the Western Balkans Investment Framework.

NAP priority action 8 includes indicators to track whether the transboundary effect of climate change has been taken into account when developing River Basin Management Plans, and whether climate change is considered by the transboundary organizations for the related basins.

Annex 3 to the NAP provides detailed project descriptions, including some that have been already completed, such as project 1, which is dedicated to enhancing regional water cooperation and capacity in addressing risks posed by meteorological and hydrological hazards, as well as new risks posed by a changing climate, with a focus on:

- Enhancing regional networking and coordination in disaster risk reduction support to water resources management in the Drin-Buna River basin.
- Strengthening cross-border cooperation in disaster risk management.
- Enhancing regional capacity to supply/share/exchange data and information in the field of disaster risk reduction.

[a] Government of Albania, *National Adaptation Plan (NAP) to Climate Change in Albania: Framework for the Country Process* (n.p., 2021).

Box 3

Integration of transboundary water management and cooperation into the National Adaptation Plan of Bangladesh[a]

Bangladesh, located in the delta region of the Ganges, Brahmaputra and Meghna Rivers, faces significant challenges in managing its transboundary water resources. The country's dependence on these rivers, which flow through multiple countries before reaching Bangladesh, necessitates robust transboundary water cooperation to ensure water security, mitigation of flood risks and adaptation to climate change impacts. Effective management of these shared water resources is crucial for the sustainable development and resilience of Bangladesh.

The NAP of Bangladesh explicitly addresses the importance of transboundary water cooperation. Several sections of the NAP highlight how this aspect is integrated into national climate adaptation strategies.

The NAP identifies the significant risks and vulnerabilities associated with the transboundary nature of the country's major rivers. It acknowledges that upstream activities and climate change impacts in neighbouring countries can exacerbate flooding, sedimentation and water scarcity in Bangladesh. The document stresses the need for regional cooperation to manage these risks effectively and enhance the resilience of water resources.

In a section of the NAP of Bangladesh on water resources interventions, high priority is assigned to transboundary river basin management and basin-level cooperation. The following activities are outlined:

- Strengthening bilateral and multilateral water diplomacy with transboundary countries for enhanced cooperation in basin-wide management.
- Knowledge and information exchange with similar transboundary basin countries.
- Development of negotiation skills among young water professionals.

Also under key water resources adaptation interventions, the NAP highlights the development of a basin-wide and participatory watershed management framework to restore, store and optimize the use of water resources. This includes a specific activity to develop an institution for effective basin-wide management within and among transboundary countries.

Under the NAP section on prioritized interventions for ecosystems, wetlands and biodiversity, the following activities are proposed:

- Development of a policy for water diplomacy and transboundary negotiation for the use of upstream water with equal rights.
- Participatory watershed management through step farming and terrace plantations for increasing stream water in hilly areas.
- Development of ecological hydrographs for all large flood plains.
- Intensive community consultation and involvement of local knowledge to enhance and maintain flood plain ecosystems.

[a] Ministry of Environment, Forest and Climate Change of Bangladesh, *National Adaptation Plan of Bangladesh (2023–2050)* (n.p., 2023).

B. Analysing the integration of transboundary water management and cooperation into Nationally Determined Contributions

33. For countries identified with the NDC-SDG Connections tool as having transboundary water management and cooperation integrated into their NDC as an "average priority" or higher, the respective NDCs were downloaded and analysed manually to examine how transboundary water management and cooperation are integrated. This led to very few readjustments to the ranking. For example, while the analytical tool classifies 15 countries as having transboundary water management and cooperation integrated into their NDC as an "average priority", and no NDC is classified as having transboundary water management and cooperation as "high priority", a detailed look at the NDCs suggests that 3 countries can be considered as having this thematic area as "high priority". On the other hand, no references to transboundary water management or cooperation were found in 5 of the 15 countries. The adjusted set of countries having transboundary water management and cooperation ranking as "high priority" or "average priority" are shown in table 2. A broader analysis is shown in figure 2, including the percentage of countries that fall under each classification.

Table 2
Countries currently integrating transboundary water management and cooperation into their Nationally Determined Contribution as "average priority" or "high priority"

Priority level	*Countries*	
High priority	Guinea	
	Jordan	
	Kazakhstan	
Average priority	Egypt	Bolivarian Rep. of Venezuela
	Nicaragua Paraguay	United Rep. of Tanzania
	Rep. of Moldova	Uruguay
		Uzbekistan

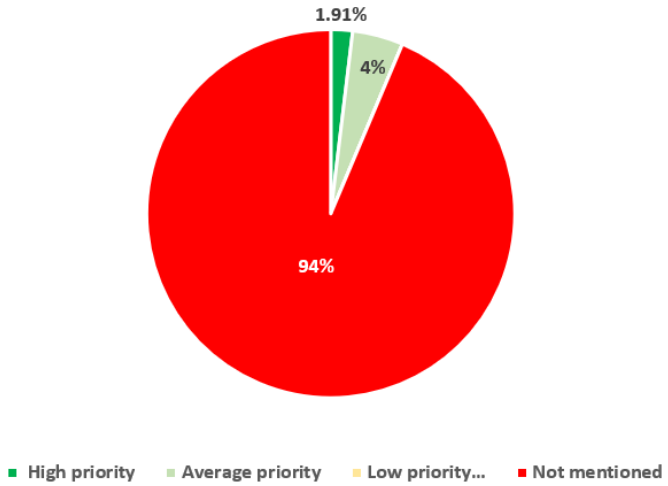
34. In total, 197 NDCs were presented up to December 2023. It must be noted, however, that for 40 of those NDCs, representing 20 per cent of the NDCs submitted, the topic of transboundary water management or cooperation does not apply. That is the case for NDCs submitted from island States (other exemptions apply, e.g., to the NDC submitted by the Holy

See). Figure 2 shows the classification of transboundary water management or cooperation integration into NDCs only for the 157 NDCs where transboundary water management and cooperation can apply in principle (i.e. surface water or groundwater bodies can run across borders).

35. The result is that less than 2 per cent of the NDCs for which transboundary waters apply have integrated transboundary water management and cooperation as "high priority". Another set of NDCs, corresponding to 4 per cent, do include aspects of transboundary water management and cooperation; however, it is normally either mentioned as a background issue or in the context of the water resources references made in the NDC, without it being translated into priority action lists or interventions for either climate mitigation or adaptation. No NDC was found to be classified as having integrated transboundary water management and cooperation as "low priority", which could mean that very soft or indirect references are made to transboundary waters.

36. One immediate conclusion that can be drawn is that integration of transboundary water management and cooperation into NDCs is even much lower than in NAPs. A plausible explanation might be that most of the references to transboundary water management and cooperation are related to adaptation options, and while those are reflected in NAPs, countries have not transposed them as adaptation priorities to their respective NDCs.

Figure 2
Integration of transboundary water management and cooperation among Nationally Determined Contributions with cross-border water bodies



37. Brief case studies, in the form of boxes 4–6, show how transboundary water management and cooperation are included in the NDCs of, respectively, Guinea, Jordan and Kazakhstan. Those are the three countries where the analysis concluded that transboundary water management and cooperation are included in their respective NDCs as "high priority".

Box 4
Integration of transboundary water management and cooperation into the Nationally Determined Contribution of Guinea[a]

Transboundary water management remains essential for Guinea, not because of a reliance on water inflows, but due to the country's critical role as the upstream source for several key river basins that support the region's water supply, agriculture and energy generation. The main river basins shared with other countries include the Niger, shared by Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Guinea, Mali, Niger and Nigeria; the Senegal, shared by Guinea, Mali, Mauritania and Senegal; and the Gambia River, shared by the Gambia, Guinea, Guinea-Bissau and Senegal. These rivers require cooperative management to address the risks of climate change, such as variability in water flow and increased frequency of extreme weather events.

The revised NDC of Guinea, submitted in July 2021, emphasizes the importance of transboundary water management, particularly concerning the country's major river basins. Specifically, under commitment 1 of the adaptation plan, Guinea prioritizes the following three interventions:

- Preservation and restoration of riparian forests, springheads, banks and riverbeds, particularly on transboundary rivers, through the development of integrated water resource management action plans.
- The search for alternatives to the financing of activities to preserve degraded transboundary river basins and the degradation of water quality (linked to brick factories, dredging of riverbeds for minerals mining).
- Integration of the climate change dimension into all institutional and legal frameworks and basin bodies responsible for the management and development of transboundary watersheds.

[a] Ministry of Environment, Waters and Forests, Guinea, *Contribution Déterminée au niveau National (CDN) de la République de Guinée: 2021* (n.p., 2021).

Box 5

Integration of transboundary water management and cooperation into the Nationally Determined Contribution of Jordan[a]

Jordan, one of the world's most water-scarce countries, faces significant challenges in managing its water resources. These challenges are exacerbated by its reliance on transboundary water sources such as the Jordan River and groundwater aquifers shared with neighbouring countries. Effective transboundary water management is essential for Jordan to ensure water security, mitigate conflicts, and enhance resilience to climate change impacts.

The updated NDC of Jordan, submitted in October 2021, emphasizes the importance of comprehensive watershed and basin-level management, which includes transboundary water resources. The NDC states that, since climate change impacts are witnessed at ecosystem levels, especially affecting the most vulnerable ecosystems, it is imperative that water adaptation plans in Jordan be based on a watershed or water basin management unit in order to integrate all elements of ecosystem management. Key measures to be taken, as outlined in the NDC, include:

- Identifying the vulnerability of surface water and groundwater basins to climate change and developing the required adaptation measures.
- Rehabilitating and restoring key watersheds in Jordan for enhanced retention of surface water and recharge to groundwater.
- Improving the quality of surface water and groundwater by enforcing laws to prevent dumping/pollution and/or offering incentives for clean-up and restoration of watersheds and basins.
- Ensuring a reliable supply of water to protect and restore critical water-related ecosystems, including forests, wetlands, rivers, aquifers and lakes.
- Developing pragmatic management plans for transboundary watersheds that are shared with neighbouring countries and are not sustainably or effectively protected by political agreements.

The NDC of Jordan also includes provisions for a robust monitoring, reporting and verification system. This system is designed to track progress in various areas, including transboundary water management, and can facilitate transparency and accountability in how transboundary water resources are managed and how cooperation efforts are implemented. By incorporating transboundary water management and cooperation into the monitoring, reporting and verification system,

Jordan can ensure that data and insights are shared with neighbouring countries, fostering a collaborative approach to addressing common water challenges.

[a] Ministry of Environment of Jordan, *Updated Submission of Jordan's 1st Nationally Determined Contribution (NDC)* (n.p., 2021).

Box 6

Integration of transboundary water management and cooperation into the Nationally Determined Contribution of Kazakhstan[a]

Kazakhstan, the world's largest landlocked country, faces significant challenges in managing its water resources due to its arid climate and the transboundary nature of many of its water bodies. Key rivers, including the Irtysh, Ural, Syr Darya and Ili, originate outside the country's borders, making international cooperation critical for sustainable water management. Climate change exacerbates these challenges by increasing the variability of water availability and the frequency of extreme weather events.

The updated NDC of Kazakhstan, approved in April 2023, highlights the need for intersectoral and interregional cooperation, especially given the limited water resources and the strategic importance of the basin approach for managing these resources effectively.

The NDC of Kazakhstan outlines specific actions to improve water management through integrated water resources management principles and a basin approach. It includes projects aimed at enhancing the coverage of wastewater treatment, reducing water loss, and modernizing irrigation and water infrastructure.

The NDC explicitly mentions the implementation of agreements on the joint use and protection of transboundary rivers as part of the 2021–2030 Action Plan. This approach aims to ensure a stable water supply and enhance the resilience of water systems to climate variability and change.

[a] Updated Nationally Determined Contribution of the Republic of Kazakhstan to the Global Response to Climate Change. Approved by Government decree No. 313, of April 19 2023.

V. Opportunities for more integrated transboundary water management and cooperation and climate policy

38. Transboundary water management and cooperation is a critical component that, as shown by the analysis presented, is currently inadequately reflected in climate policy instruments such as NDCs and NAPs. Given that many of the world's most significant river basins are shared by multiple countries, the impacts of climate change on these water resources cannot be effectively managed within national borders alone. Moreover, transboundary water management and cooperation entail many benefits, for example, data exchange, larger planning scale, collective consideration, better prioritization of measures and sharing costs and benefits as, among other things, recognized in the United Arab Emirates Framework for Global Climate Resilience. Climate policies should therefore integrate transboundary considerations to ensure the equitable and sustainable management of shared water resources, which are vital for drinking water, agriculture, energy production and ecosystem health.

39. To enhance the integration of transboundary water management and cooperation into NDCs and NAPs, it would be beneficial for countries to explicitly include plans or commitments to cooperate with their neighbours on shared water resources, for example,

referring to transboundary agreements, basin organizations and already agreed basin management plans and transboundary adaptation strategies, where they exist. This could involve setting joint objectives for reducing climate vulnerabilities, harmonizing water management strategies, establishing shared monitoring and early warning systems for floods and droughts and coordinating and/or jointly implementing climate measures. Efforts to implement these transboundary commitments would be more effective and successful if there were robust transboundary legal and institutional frameworks and financing mechanisms in place, and all riparian countries were to participate actively.

40. Transboundary and regional bodies can also help to promote cooperation among countries to achieve common climate change mitigation and adaptation goals. Box 7 highlights some examples of transboundary river basins organizations where NDCs and NAPs from the respective riparian countries provide important input for the strategies and programmes of the respective basins.

Box 7
Mainstreaming Nationally Determined Contributions and National Adaptation Plans into regional river management strategies

Various river basin organizations and joint bodies align their strategies and programmes with the NDCs and NAPs. For instance, the projects and programmes of the Lake Victoria Basin Commission are consistent with national or subnational sustainable development strategies, including the NAPs and NDCs of the respective riparian countries.[a] The projects of the Niger Basin Authority are also consistent with the NDCs and NAPs of the respective riparian countries and contribute to the development and implementation of NDCs and NAPs in each of the Niger Basin Authority countries.[b] The Climate Change Adaptation Strategy for the Rhine Basin is based, among other things, on aspects included in the adaptation strategies and plans of the individual countries.[c] The Sahara and Sahel Observatory points out that NDCs and NAPs are important tools to help countries develop national adaptation strategies for concrete sectors.[d]

[a] Lake Victoria Basin Commission (LVBC), "LVBC Prioritizes Media as Accelerators of Climate Change Adaptations", 26 June 2022, available at www.lvbcom.org/lvbc-prioritizes-media-as-accelerators-of-climate-change-adaptations/

[b] Seventh meeting of the Global Network of Basins Working on Climate Change Adaptation 25–26 May 2023, Progress report of the Global Network of Basins Working on Climate Change Adaptation as of April 2023. Available at https://unece.org/sites/default/files/2023-07/Global_network_overview_pilot%20projects_progress_May2023_ENGL_Final.pdf

[c] Ibid.

[d] Ibid.

41. The work of river basin organizations can also support development and improvement of NDCs and NAPs. Often, knowledge and expertise on water management is collected by river basin organizations or wider cooperation organizations that, in turn, can influence strategies and programmes at the national level. Boxes 8 and 9 give examples of how the Amazon and the Lower Mekong basin organizations, respectively, support development of national strategies and programmes.

Box 8

Amazon Cooperation Treaty Organization as a motor for national climate action

The Amazon Cooperation Treaty Organization is an intergovernmental organization formed by the eight Amazonian countries: Bolivia (Plurinational State of), Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela (Bolivarian Republic of), which signed the Amazon Cooperation Treaty. It is the only socio-environmental block in Latin America that works in different dimensions within the framework of the implementation of the Amazon Cooperation Treaty: political-diplomatic, strategic and technical, building synergies between various stakeholders.[a]

The Strategic Action Programme - Regional Strategy for Integrated Water Resources Management in the Amazon Basin[b] of the Amazon Cooperation Treaty Organization integrates climate change as one of its strategic lines of actions and foresees the establishment of a national action plan in each of the eight Amazonian countries to ensure the effective implementation of the strategic actions at the national level. These national action plans are to be harmonized with national policies, regulations and legal frameworks on water management and climate change.[c]

In addition, the Amazon Cooperation Treaty Organization, in collaboration with the CAF Development Bank of Latin America, has initiated activities to build a climate change module and strengthen other modules such as those on biodiversity and forests within the Amazon Regional Observatory. This includes the development of a benchmarking report document, with existing greenhouse gas emissions baselines, serving as a background for country NDCs for the Amazon and climate resilience and adaptation actions.[d]

[a] Amazon Cooperation Treaty Organization (ACTO),"Understand the importance of ACTO", available at https://otca.org/en/about-us/.

[b] ACTO, *Strategic Action Programme: Regional Strategy for Integrated Water Resources Management in the Amazon Basin* (Brasilia, 2018). Available at https://otca.org/en/wp-content/uploads/2021/01/Strategic-Action-Program-SAP.pdf.

[c] ACTO, "Regional Strategy for the Integrated Management of Water Resources in the Amazon Basin", available at https://aguasamazonicas.otca.org/strategic-action-program/national-action-plans/?lang=en.

[d] Amazon Regional Observatory, "ACTO and CAF sign an agreement to improve the living conditions of the population in the Amazon Region", available at https://oraotca.org/en/news/acto-and-caf-sign-an-agreement-to-improve-the-living-conditions-of-the-population-in-the-amazon-region/.

Box 9

Basin Development Strategy in support of climate action in the Mekong basin

All Mekong River Commission member countries have expressed a strong will to adapt to climate change. This has led to the development of the Mekong Adaptation Strategy and Action Plan[a] in 2017, in close coordination between the Commission and its member countries. The Mekong Adaptation Strategy and Action Plan has been mainstreamed into the Basin Development Strategy 2021–2030 and the Mekong River Commission Strategic Plan 2021–2025.[b]

Drought and flood management is an important issue for the Mekong River Commission member countries. Mekong Adaptation Strategy and Action Plan and Basin Development Strategy activities have contributed to the development and implementation of member countries' NDCs and NAPs, for example, through the development of national flood and drought policies, strategies and programmes for

mainstreaming regional responses to climate change. In line with the seven strategic priorities of the Mekong River Commission, monitoring, data collection and sharing have been enhanced and aligned with the member countries' NDCs.[c]

[a] Mekong River Commission (MRC), *Mekong Climate Change Adaptation Strategy and Action Plan* (Vientiane, 2018).

[b] MRC, *Basin Development Strategy for the Mekong River Basin 2021–2030 and MRC Strategic Plan 2021–2025.* (Vientiane, 2021).

[c] Progress report of the Global Network of Basins Working on Climate Change Adaptation as of April 2023.

42. The Water Convention serves as a critical platform for fostering transboundary water cooperation in climate change adaptation. Its Task Force on Water and Climate offers technical guidance and supports the development of joint adaptation strategies, plans and measures across borders. Additionally, the Global Network of Basins Working on Climate Change Adaptation, coordinated by the Convention together with the International Network of Basin Organizations, provides a collaborative platform for basins to share experiences in developing and implementing common adaptation strategies, plans and joint measures. These activities help to ensure that transboundary water cooperation is not only reflected in national climate policies but also effectively translated into action on the ground. For example, countries should as much as possible develop climate-proof transboundary agreements to ensure the long-term viability of cooperation in the face of climate change impacts, such as altered water availability and extreme weather events. In addition, countries should set up and develop joint bodies and task them with addressing climate change adaptation and mitigation. This may include developing transboundary vulnerability assessments and joint adaptation strategies and ideally integrating them into their NDCs and NAPs.

43. By leveraging platforms such as the Water Convention and its associated bodies, countries can enhance the implementation of transboundary water cooperation interventions outlined in their NDCs and NAPs. Indeed, when transboundary water cooperation is adequately reflected in NDCs and NAPs, they can be used as a reference for the development, financing and implementation of transboundary basin management strategies and projects developed by basin organizations. Transboundary basin and regional organizations can play a crucial role in this process by facilitating coordination between different countries, identifying common mitigation opportunities and adaptation needs, and contributing to their integration into national climate and sectoral policies and subsequently implementing them.

VI. Recommendations for further integrating transboundary water management and cooperation into National Adaptation Plans

44. Given the recent actions taken by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement at its fifth session (Dubai, United Arab Emirates, 30 November–13 December 2023), the current moment presents a crucial opportunity to integrate transboundary water cooperation into NAPs. The outcome of the first Global Stocktake underlined significant gaps in adaptation planning and implementation, particularly highlighting the need for enhanced international cooperation to address climate change effectively. As climate impacts often transcend national boundaries, affecting shared water resources, the Global Stocktake's emphasis on international collaboration makes it imperative to incorporate transboundary water cooperation into NAPs.

45. Moreover, the Conference of the Parties recognized the importance of the global goal on adaptation by adopting the United Arab Emirates Framework for Global Climate Resilience. The decision[10] reaffirms the need for enhanced adaptive capacity, resilience and vulnerability reduction, which are inherently tied to effective water management, and

[10] Decision 2/CMA.5., para. 8 and 18.

recognizes that climate change impacts are often transboundary in nature and may involve complex, cascading risks that, in order to be addressed, require knowledge-sharing and climate-informed transboundary management.

46. Building on this momentum, and to further integrate transboundary water cooperation into the formulation of NAPs, stakeholders involved in supporting these initiatives should consider the following recommendations derived from the UNFCCC NAP Technical Guidelines (Part II, sects. 4 and 5).[11]

(Step a.1) Conducting comprehensive baseline assessments

47. Transboundary water assessments: Ensure that baseline assessments for NAPs explicitly include transboundary assessments of river basins and shared water resources. For example, for some transboundary basins, there are available climate impact and vulnerability assessments developed by transboundary basin organizations that should be promoted and used by climate policymakers during NAP development. Overall, preparing such assessments involves gathering data on the current status of water availability, quality and use across borders, as well as wide consultations among the relevant sectoral stakeholders from the riparian countries. Stakeholders should promote the inclusion of joint assessments and the development of new ones (if not available) with neighbouring countries to identify shared vulnerabilities and risks related to climate change.

(Step a.2) Enhancing stakeholder engagement

48. Involvement of transboundary institutions: Engage transboundary water management bodies, such as basin organizations, in the NAP process from the outset. Their expertise and data can help shape strategies and actions that are more reflective of the realities of shared water systems.

49. Inclusive participation: Ensure that all relevant stakeholders, including local communities, Indigenous Peoples, youth, women, private sector, expert community, Governments and international organizations involved in transboundary water management and cooperation, are part of the dialogue. This inclusive approach can facilitate the identification of common goals and the development of cooperative adaptation strategies.

(Step a.3) Developing a shared vision for transboundary adaptation

50. Joint visioning workshops: Organize workshops or meetings between neighbouring countries to develop a shared vision and adaptation strategy for adapting to climate impacts on shared water resources, for instance based on a joint vulnerability assessment, with the support of transboundary basin and regional organizations. This can help align national NAPs and foster cooperation in implementing shared adaptation measures.

51. Harmonizing objectives: Ensure the harmonization of transboundary adaptation objectives across NAPs of riparian countries. This can be done by finding synergies with regional or transboundary water management goals, ensuring that strategies complement rather than conflict with one another.

(Step a.4) Creating cooperative National Adaptation Plan implementation frameworks

52. Climate-proofed transboundary frameworks for cooperation: Develop, and where necessary and agreed by the riparian countries, revise transboundary agreements so that they account for addressing climate change and building climate resilience. Consider climate change while implementing transboundary agreements, for example, through developing and adopting additional protocols and decisions, creating dedicated working groups focusing on

[11] United Nations Framework Convention on Climate Change (UNFCCC), *Least Developed Countries: National Adaptation Plans – Technical Guidelines for the National Adaptation Plan Process* (n.p., 2012); and Global Water Partnership, *Addressing Water in National Adaptation Plans: Water Supplement to the UNFCCC NAP Technical Guidelines – Second Edition* (n.p., 2019).

climate change and elaborating and implementing transboundary adaptation strategies, plans and measures.

53. Transboundary initiatives and projects: Support integrating transboundary dimensions and development of transboundary adaptation projects into NAPs. These projects/initiatives might focus on joint infrastructure development, ecosystem restoration, shared early warning systems, collaborative research initiatives or elaboration of joint transboundary/regional adaptation frameworks.

54. Resource mobilization and funding: Include transboundary water cooperation projects in funding proposals and climate finance mechanisms. Ensuring that NAPs include specific provisions for transboundary water cooperation can make these projects more attractive to international donors and financial institutions and can help in the mobilization of national funding.

(Step a.5) Leveraging the role of the Water Convention and related bodies

55. Engagement with the Water Convention: Utilize the Water Convention as a platform to formalize and strengthen transboundary cooperation within NAPs. The Convention's Task Force on Water and Climate can provide expertise, facilitate dialogue and exchange of experience, and help in the design of transboundary adaptation measures.

56. Engagement with the Global Network of Basins: The Global Network of Basins can be a valuable resource for sharing best practices and lessons learned from other transboundary water basins. Seeking the participation of the Network and its member basin organizations during NAP formulation can help countries refine their NAPs with proven strategies for transboundary water management and cooperation.

VII. Recommendations for further integrating transboundary water management and cooperation into Nationally Determined Contributions

57. As countries work on formulating their NAPs, it is essential to recognize the interconnectedness of adaptation and mitigation strategies within their broader climate goals. The NDCs, which are central to the Paris Agreement, encompass both mitigation and adaptation strategies. Therefore, countries currently developing their NAPs and integrating transboundary water management and cooperation should ensure that their adaptation priorities are also reflected in the revised versions of respective riparian countries' NDCs.

58. Indeed, the current moment is a pivotal time to integrate transboundary water cooperation into NDCs, especially in the light of the recent call by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement for all countries to raise the ambition of their NDCs and submit revised versions by February 2025.[12]

59. To effectively integrate transboundary water management and cooperation into the revision of NDCs and to raise their ambition, stakeholders can consider the following recommendations, drawing on key insights from the NDC 3.0 Navigator.[13]

(Step b.1) Incorporate clear targets and indicators for transboundary water cooperation

60. Set specific, measurable targets: Clear, quantifiable targets related to transboundary water management and cooperation should be considered for inclusion in NDCs. This could involve plans for or commitments, for example, to joint wetlands conservation and restoration projects, transboundary early warning systems, or cooperative infrastructure developments in transboundary river basins. Specific indicators, such as the proportion of transboundary basin areas with an operational arrangement for water cooperation as reflected in indicator

[12] Decision 1/CMA.5, paras. 166 and 167.
[13] See https://ndcnavigator.org/.

6.5. of the Sustainable Development Goals can help identify gaps and measure progress for the 153 countries sharing transboundary water cooperation.

61. The global effort to produce and share data for the calculation of indicator 6.5.2 of the Sustainable Development Goals, in itself, has had a positive impact on transboundary water cooperation as it encouraged Governments to improve data quality and availability, and some countries have shared such data and cooperated at the transboundary level to prepare their national reports. The third and most recent report *Progress on Transboundary Water Cooperation: Mid-term Status of SDG Indicator 6.5.2, with a Special Focus on Climate Change* has a special focus on climate change. It (together with the previous progress reports)[14] can be used to inform the revision of NDCs by identifying gaps and opportunities for enhanced transboundary water cooperation in the context of climate change adaptation. It is therefore recommended to improve the coverage and quality of data for indicator 6.5.2 of the Sustainable Development Goals in order to inform decision-making on transboundary water cooperation at the national, basin, regional and global levels.

62. Where they exist, joint bodies can provide a platform for sharing and reviewing indicator 6.5.2 data, coordinating the efforts of countries sharing transboundary waters, and analysing data at the regional level. Lastly, climate stakeholders can refer to the national reports on indicator 6.5.2 for their countries to identify gaps and opportunities in transboundary water cooperation that can be incorporated into NDC development and implementation.

63. Use science-based indicators: Ensure the use of science-based indicators for water management. These should be aligned with international best practices and support adaptive management approaches that can respond to changing climatic conditions (e.g., river flow variability, water quality parameters such as nutrient concentration or salinity, and ecosystem health indicators such as biodiversity indices).

(Step b.2) Promote regional coordination

64. Coordinate NDCs across borders for shared basins: Neighbouring countries should make efforts to coordinate their NDCs in relation to shared water resources. This can ensure that adaptation and mitigation strategies, including the role of water therein, are consistent and mutually reinforcing across borders, reducing the risk of conflicting actions that could undermine regional stability. Transboundary basin or regional organizations can support this process by serving as platforms for consultations and facilitating dialogue among riparian countries.

65. Leverage existing transboundary and regional agreements and relevant strategies and plans: Build on existing transboundary water agreements, regional cooperation frameworks, basin plans and strategies. Countries should make efforts to reflect the commitments and objectives of these agreements and strategies within their NDCs, ensuring that regional and transboundary collaboration is embedded in national climate strategies.

(Step b.3) Establish and strengthen institutional frameworks for transboundary water governance

66. Develop climate-proof transboundary water agreements to ensure that cooperative frameworks can withstand and help mitigate the impacts of climate change, such as altered water availability and extreme weather events. Basin organizations should also be tasked with addressing climate change adaptation and mitigation, integrating these issues into their mandates to enhance resilience in transboundary water management.

67. Strengthen existing transboundary basin and regional organizations to serve as platforms for discussing and coordinating water-related elements of NDCs at both the national and transboundary levels. These institutions should facilitate sectoral coordination among agriculture, energy and the environment to ensure that water management strategies align with broader national development goals and regional cooperation objectives. In cases where such joint bodies do not exist, efforts should be made to establish them, fostering

[14] United Nations publications, ECE/MP.WAT/57 and ECE/MP.WAT/65.

cooperation in transboundary water management and supporting climate adaptation through integrated institutional mechanisms.

68. Integrate water-energy-food-ecosystems nexus approaches: Promote the integration of the water-energy-food-ecosystems nexus approach in the NDC revision process to account for interlinkages and dependencies across borders between water, energy, food and ecosystems. Countries should make efforts to ensure that policies and actions in one sector do not negatively impact other sectors, including across national boundaries, and that trade-off are reduced. By embedding the water-energy-food-ecosystems nexus in institutional frameworks, countries can develop more coherent and effective strategies that support both national and regional climate goals.

(Step b.4) Integrate nature-based solutions and ecosystem-based approaches

69. Highlight the role of ecosystems: Include nature-based solutions and ecosystem-based approaches in managing transboundary waters. These approaches not only enhance water security but also contribute to biodiversity conservation, climate resilience and mitigation. Including such strategies in NDCs can raise ambition by addressing multiple climate and environmental goals simultaneously.

70. Promote joint ecosystem conservation and restoration projects: Countries should commit to joint and/or coordinate their ecosystem conservation and restoration projects in transboundary areas, such as wetland rehabilitation or reforestation of shared watersheds. These projects can be a cornerstone of enhanced NDCs, demonstrating a commitment to cooperative and sustainable water management.

(Step b.5) Enhance stakeholder engagement and participation

71. Engage a broad range of stakeholders: Support the involvement of diverse stakeholders, including local communities, Indigenous groups, youth and civil society, in the revision of NDCs.

72. Facilitate cross-border stakeholder dialogues: Organize and support dialogues that bring together stakeholders from different countries sharing a basin. These dialogues can help build trust, share knowledge, and co-develop strategies that are reflected in revised NDCs. Transboundary basin/regional organizations can play a crucial role in facilitating such cross-border dialogues and stakeholder engagement overall.

(Step b.6) Secure and mobilize financing for transboundary projects

73. Identify and promote funding opportunities: Countries should consider including in their NDCs commitments to seek and secure financing for transboundary water management and cooperation projects. This could become an opportunity to mobilize resources from national funding and/or from international climate funds, bilateral donors, and multilateral financial institutions that prioritize regional cooperation and shared water resource management.

74. Create joint financial mechanisms: Support the creation of joint financial mechanisms, such as pooled funds, that can be used to finance transboundary water initiatives. Including these mechanisms in NDCs can demonstrate a higher level of ambition and commitment to long-term regional cooperation.