

Water Cooperation for Accelerated Agenda 2030 Implementation: Special focus on transboundary water cooperation in Africa



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Table of Contents

- About this working paper 2**
- 1. Introduction4**
 - 1.1 Water cooperation responds to increasing water pressures4
 - 1.2 Assessing water cooperation 5
- 2. Trends in water cooperation: The global outlook..... 8**
 - Some methodological notes: 10
- 3. Trends in Transboundary Basin Cooperation in Africa 14**
 - 3.1 Assessing transboundary water basin cooperation in Africa 16
 - 3.2 Learning from governance and leadership..... 16
- 4. Emerging water cooperation trends19**
- References 23**

About this working paper

The International Centre for Water Cooperation (ICWC) has been undertaking an initiative, started in 2022, to promote water cooperation around the world. Against this aim, the initiative assesses the status and trends of water cooperation at different scales. Based on these insights, it then analyses country preparedness and policy insights and options to cooperate on water to support contextualized water cooperation solutions, advocating their importance to national and international decision-makers and water managers.

The working paper is used as a basis to the World Water Week 2023 Session on *Water Cooperation Innovations for Accelerated SDG 2030 Agenda Implementation*.

The working paper highlights some initial water cooperation trends as assessed by the upcoming Water Cooperation Global Outlook Report. It sets out the case that many countries and shared water basins are facing cooperation deficits, and outlines cooperation trends and the importance of progress on water cooperation across sectors, stakeholders, scales and borders for improved water security.

The paper makes brief overview of the water cooperation assessment framework used to assess: (i) water cooperation at the national and subnational scales and (ii) transboundary water cooperation. This framework is structured against three main questions of water cooperation: why, what and how?

- The component assessing the why of water cooperation is about the motivations, drivers and incentives to cooperate.
- The assessment of what characterizes cooperation is divided into the following factors: governance; leadership; information and data; joint programming; financing; and enabling environment. These factors provide the main bulk of the assessment.
- The question of how cooperation is manifested and implemented relates to the various mechanisms that are developed to guide and set the rules for water cooperation.

The paper highlights some initial water cooperation trends and conclusions identified by the global water cooperation assessment targeting national and sub-national levels. The special focus on Africa undertook a water cooperation assessment in 32 basins in Africa and initial conclusions are presented.

The global water cooperation assessment draws on data from the United Nations SDG 6.5. on implementing integrated water resources management at all levels, including through transboundary cooperation and the GLAAS-Report. The assessment of the 32 African basins uses primary and secondary sources of information.

The final version of the Water Cooperation Global Outlook Report – to be launched during the fall of 2023 – will present the full analysis of the review of cooperation trends and innovations around transboundary waters plus the full assessment of trends, with a global outlook, of national and subnational water cooperation.

The Report forms part of the Water Cooperation Global Outlook Initiative, which is a contribution to the Water Action Agenda to of the United Nations Water Conference, held in New York, 22–24 March 2023. For more information see the Working Paper on [Water Cooperation Global Outlook Initiative](#).

1. Introduction

1.1 Water cooperation responds to increasing water pressures

The world is facing increasing challenges of the social, economic, political and ecosystem risks of too little, too much and too polluted water. Accessible and high-quality freshwater is, in space and time, a finite and highly variable resource. Water scarcity, water disasters and extreme weather events (such as floods and droughts), and failures of climate change mitigation and adaptation continue to rank among the globe's top risks, as assessed in the World Economic Forum's *Global risks report* (WEF, 2022). Projections show that 40 per cent of the world's population currently lives in water-stressed river basins, and that water demand will rise by 55 per cent between 2000 and 2050 (OECD, 2012). The increased pressures on water may displace as many as 700 million people by 2030.

Growing economies – coupled with population growth, increasing demands for food and energy, urbanization, and effects of climate change – exacerbate the challenges linked to the sharing of water that is under increasing pressures. Still, more than 60 per cent of transboundary river basins, and an even higher proportion of shared groundwater aquifers, lack any cooperative and adaptive transboundary management mechanisms. Where cooperative mechanisms are in place, they are often under-resourced and seriously impeding their effectiveness.

The world is off-track to meeting many of the Sustainable Development Goals (SDGs), and SDG 6 – clean water and sanitation for all – is no exception; achieving some of the other SDGs is also highly dependent on achieving SDG 6. The Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (UNICEF & WHO, 2022) reports that two thirds of countries will not achieve SDG 6 by 2030. More than 120 countries are not on track to meet sanitation targets and 3 out of 10 persons are not yet using safely managed drinking water services, with 785 million people still lacking basic services and 6 out of 10 people without safely managed sanitation.

The progress on improved water resources management looks gloomy, against the SDG target 6.5 – to “implement integrated water resources management at all levels, including through transboundary cooperation as appropriate”. The monitoring report by the United Nations Environment Programme suggests that 107 countries are off-track to reach this target, and the global rate of progress to implement integrated water resources management will need to double (UNEP, 2021).

The lack of water cooperation can lead to several negative outcomes, such as adverse impacts of climate change and floods and droughts, lower agricultural yields, reduction of biological diversity and deteriorating water quality. Ultimately, the lack of cooperation comes at a high cost and reduces possibilities for socio-economic development. Many of these costs are obviously difficult to translate into monetary terms but the cost difference between good and bad water governance could add up to more than 20 per cent of GDP for Central Asia by 2050, according to the World Bank (2016). The costs for non-cooperation in shared waters in Central Asia, meanwhile, added up to more than USD 4.5 billion a year (Pohl et al., 2017).

Cooperation is a key aspect to meeting water challenges at all scales. Water unites people more often than it divides them - despite the impression that may be given by the role of the news media to focus on water's part in conflicts. Yet, while partnership and unity are important, water management and governance tend to be very fragmented and face great deficits in cooperation. Most countries around the world and international multilateral systems are at a crossroads on the decision about how far to follow the pathway away from business as usual. This pathway is characterized by transborder cooperation across stakeholders, sectors and scales – and taking it can help to accelerate the implementation of the 2030 Agenda and other international commitments such as the Paris Climate Agreement and the Sendai Framework for Disaster Risk Reduction.

1.2 Assessing water cooperation

The Water Cooperation Global Outlook Report assesses country preparedness to cooperate by analyzing the status and trends of water cooperation at different scales and draws policy and practice lessons. Based on this knowledge, it then seeks and supports water cooperation solutions, aiming, in national and international policy circles, to advocate their importance.

The result of this work helps to identify current and future areas where water cooperation challenges are more likely to occur, and where cooperation strategies should be actively pursued to promote socio-economic development, environmental sustainability and peace and stability at local to international levels. It contributes to global assessments and monitoring of SDG6 on Water and sanitation for all, especially target 6.5 on integrated water resources management at all levels. The initiative takes a very specific starting point by:

- 1) **Emphasizing water cooperation** – and what makes contextualized cooperation work at the outset;
- 2) focusing on country and water basin **water cooperation preparedness**; and
- 3) highlighting water cooperation at **different scales**.



The Third Friendship Bridge over the Mekong River connecting Thailand and Laos.

While there has been much research and many initiatives focusing on water conflicts at the transboundary level, there have been fewer systematic studies on water cooperation – on status, trends and what makes it work or not – at the international, national, and subnational levels. This initiative takes on that different approach, since it emphasizes cooperation and preparedness, and highlights water cooperation at different scales.

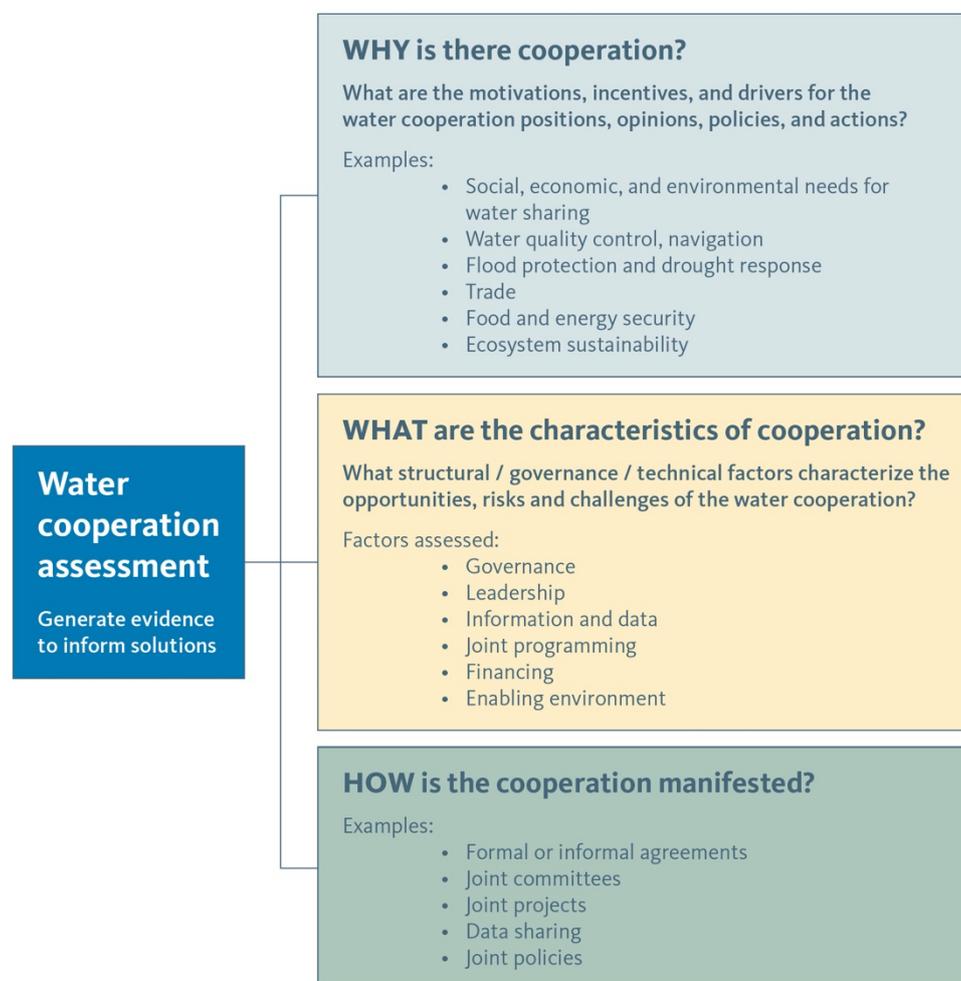
Cooperation is defined as the action or process of two or more actors working together to the same end. While the definition is simple, its practical application can be challenging. Actions need to be undertaken among a set of actors sharing common water resources and the various uses of water. While they preferably strive towards similar goals, they sometimes have asymmetric power relations and disparate interests, with varying capacities for negotiation.

In this report we are assessing cooperation preparedness in a framework related to motivations and drivers of cooperation and a set of water cooperation characteristics or factors that relate to governance; leadership; joint programming, financing, data and information, and enabling environment (see Fig 1.1). Several other drivers such as demographic change, socio-economic development and increasing rainfall variability can drive water pressures and influence on what extent cooperation takes place and in what ways cooperation is manifested.

The developed assessment framework (see Figure 1.1) generates the data and information required for evidence-based learning that can inform policy options and management solutions for contextualized water cooperation. The Outlook Report will overall assess a set of water cooperation factors or characteristics. These include: 1) governance; 2) leadership; 3) financing; 4) joint programming; 5) data and information; and 6) enabling environment.

The assessment indicators developed for each water cooperation factor are based on procedural or process-oriented indicators, which looks at issues such as: If and what institutions are in place to promote cooperation, is information shared at different levels, is coordination promoted between different actors, do people have opportunity to participate and to what extent are cooperative efforts financed. The framework is not prescriptive and acknowledges that cooperation can take many shapes and forms and what is desirable is what is seen as fit for purpose by the engaged actors. As acknowledged by research, the use of broad indicators is an effective means of diagnosing and communicating policy (Kayser, 2018). This is in line with the aim of this report to raise awareness on water cooperation challenges, opportunities and solutions among water decision-makers and practitioners.

Figure 1.1: Analytical assessment framework of the Global Water Cooperation Outlook initiative



2. Trends in water cooperation: The global outlook

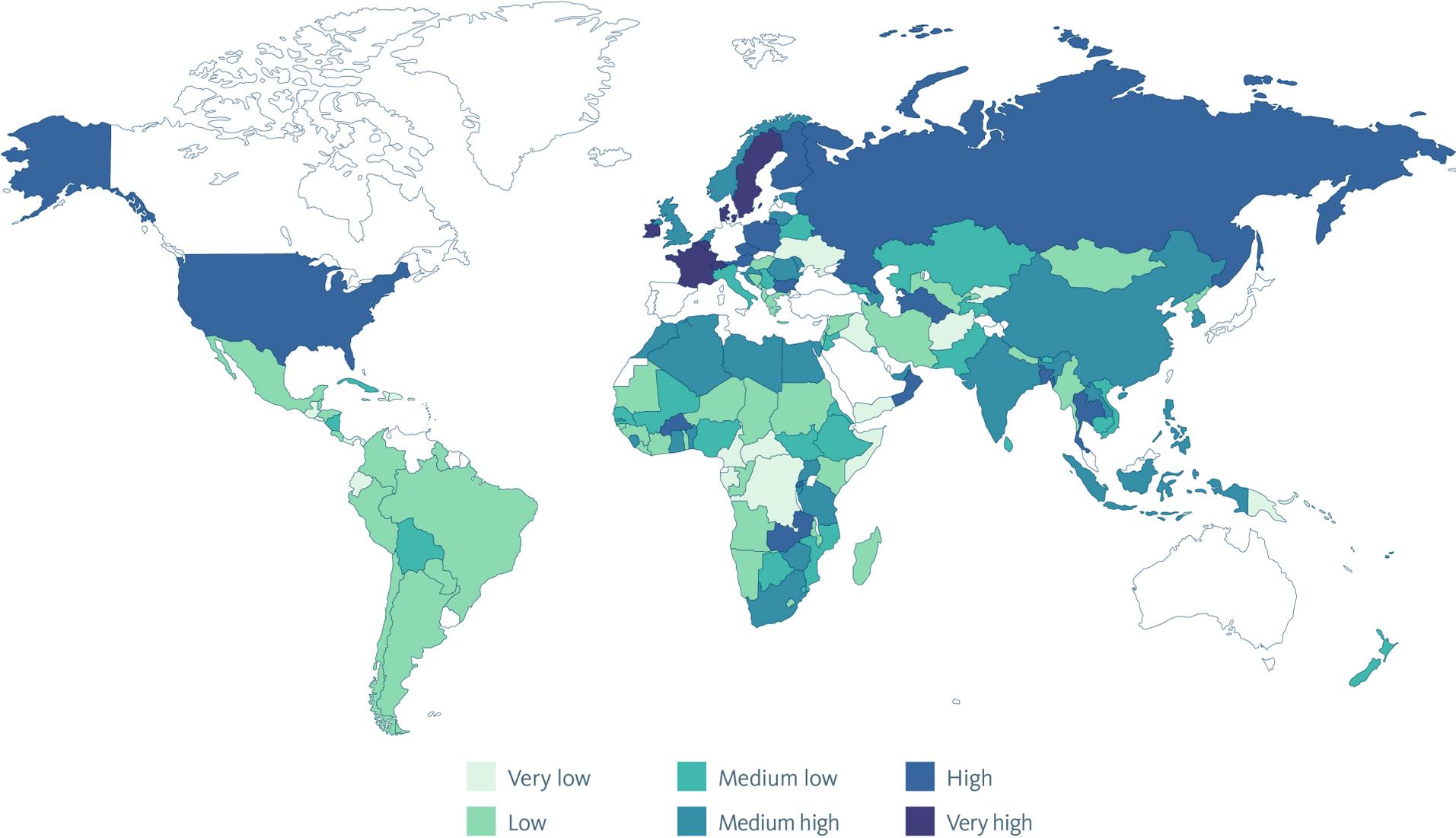
As water pressures are mounting and that water management becomes more dynamic through coordinated approaches and multilevel governance, with a greater complexity of actors involved, cooperation becomes even more important as a means to resolve various water challenges. The role of cooperation between a growing number of both state and non-state actors, to represent different sectors and at various scales, is gaining importance in the shift towards coordinated co-creation and adaptive approaches to water management and polycentric governance systems. Governments undoubtedly remain the critical entities for driving the development of law, policy, and regulation, but an increasing number of private and civil society actors are assuming greater roles in water policy development and implementation.

In this section, some snapshots are provided from the upcoming Outlook Report on the initial analysis of global and regional trends of water cooperation preparedness among surveyed countries. The final Outlook report will make analysis of emerging trends of each relevant water cooperation factor, that is governance, leadership, data and information and financing.



The Wakhan Corridor, with the Panj River marking the border between Afghanistan and Tajikistan.

Map 2.1: Global overview of national water cooperation preparedness



Some methodological notes:

In order to assess the outlook for water cooperation from a global perspective, we have used existing national-level data to construct a water cooperation preparedness index (WCPI) assessing countries' water cooperation preparedness on a scale from 0 to 100. This index assesses national and sub-national water cooperation by combining several indicators that relate to water policy and practice on a national or subnational level, which are expected to influence the degree to which a country is able to engage in water cooperation. Each of these included indicators falls within one of the following categories: *governance, leadership, data and information, financing and investment, and enabling environment*. The data for the indicators comes from the SDG reporting data for SDG's 6.5.1¹ and 6.5.2², from UN-Water/WHO's Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS)³, and from the Institute for Economics and Peace's Global Peace Index (GPI)^{4,5}. The enabling environment category has a single variable, the Global Peace Index (GPI). The data comes from the period 2018-2022.⁶

Table 2.1: Score categories

Water cooperation preparedness	Very low	Low	Medium low	Medium high	High	Very high
Score threshold	< 30	30 - 40	40 - 50	50 - 60	60 - 70	> 70
Category colour code						

Based on countries' scores on the water cooperation preparedness index (WCPI), they have been grouped into six categories, which are listed in table 2.1. Map 2.1 provides a global overview of all countries included in the WCPI, while table 2.2 provides a breakdown of scores by geographical region. Major differences in cooperation preparedness exist both across and within regions. On average, global cooperation preparedness is "medium low", whereas the most common preparedness score is "low". On a global scale, then, there is substantial room for improving water cooperation preparedness. Only 4 out of 150 countries assessed

1 Accessible through: <http://iwrmdataportal.unepdhi.org/country-reports>.

2 Accessible through: <https://sdg6data.org/index.php/en/tables>.

3 Accessible through: <https://glaas.who.int/glaas/data>.

4 Institute for Economics & Peace, 'Global Peace Index 2022: Measuring Peace in a Complex World' (Sydney, June 2022), <http://visionofhumanity.org/resources>.

5 In total, 53 indicator variables from GLAAS, 15 from SDG 6.5.1, and one each from SDG 6.5.2 and GPI were used.

6 GLAAS data from 2018 and 2021, SDG 6.5.1 and 6.5.2 from 2020 (except SDG 6.5.2 data for Bolivia, which is from 2022), and GPI from 2022.

have a “very high” score: Denmark, France, Sweden, and Switzerland. The number of countries scoring “very low” is a lot higher – at 17 countries they comprise 11 percent of countries assessed. The group of countries with “very low” scores is geographically a lot more diverse than the group with “very high” scores, representing each region apart from Europe.

On the whole, Europe is the region with the highest cooperation preparedness. It scores much higher than the global average. Cooperation preparedness in Asia and Africa is close to the global average when these regions are assessed as a whole. The Americas and Oceania both have cooperation preparedness levels well below the global average. One thing that these two regions have in common is that many countries in these regions are island states – and among those many Small Island Developing States (SIDS). As table 2.2 shows, nearly 70 per cent of SIDS have “low” or “very low” cooperation preparedness. While the large number of SIDS in the Americas region would at first sight appear to offer a plausible explain for this region’s low cooperation preparedness, however, both SIDS and non-SIDS in this region have low scores. Within Oceania, too, the SIDS/non-SIDS distinction does not neatly map on to the scores; Fiji – classified as a SIDS – is the only country with a “medium high” score in this region, whereas New Zealand, the only non-SIDS in Oceania included in our data, has a “medium low” score.

Table 2.2: Breakdown of countries’ scores in different score categories, by region

	Very high	High	Medium high	Medium low	Low	Very low
Europe (n=30)	13%	33%	27%	13%	13%	-
Asia (n=37)	-	14%	19%	41%	22%	5%
Africa (n=51)	-	10%	29%	20%	29%	12%
Americas (n=26)	-	4%	4%	23%	38%	31%
Oceania (n=6)	-	-	17%	17%	50%	17%
SIDS (n=23)	-	4%	13%	13%	39%	30%
LDC (n=43)	-	12%	16%	21%	40%	12%
Global (n=150)	3%	14%	21%	24%	26%	11%

With respect to SIDS, it is worth observing that most small island states do not have territory within a transboundary water resource, so for these countries international water cooperation will often take a very different shape than cooperation relating to transboundary freshwater resources. It might for example consist in the sharing of best practices, or financial, technical and practical assistance between countries. Given that many SIDS already have low water security levels, and that climate change and increased disaster risk will likely worsen this problem in the future, water cooperation preparedness could be more important for this group of countries than it might look at the first glance (Gheuens, et al., 2019).

Differences in score between countries in the same geographical region are large in all regions. The spread of scores is largest in Europe and Africa but is also relatively large in Asia. These three regions, then, are those in which there is most variation between countries in terms of their cooperation preparedness. In Oceania and the Americas this variation is much smaller, but average preparedness levels are also lower than in the other regions.

In some cases, within-region variation takes the form of certain sub-regions as a whole scoring higher than other nearby sub-regions. For example, countries in Southern and South-East Africa have relatively high scores compared to countries in Central Africa. Sometimes there are substantial differences within sub-regions as well, as is most clearly visible in West Africa, but also elsewhere, such as in the Middle East. Zooming in even more, on a country-to-country level, there are some cases where the differences in cooperation preparedness between neighbouring countries are particularly large. Myanmar, Afghanistan, Ukraine,⁷ and the DRC, for example, all score significantly lower than some of their neighbours.

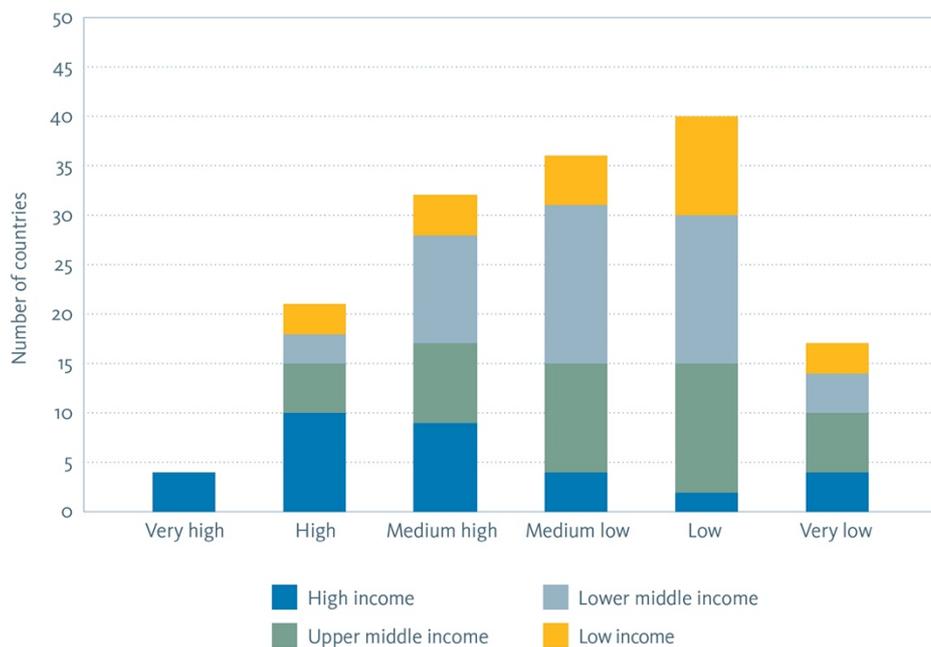


Fishing boats on Lake Tanganyika, just off the Zambian shoreline.

⁷ Data for Myanmar, Afghanistan, and Ukraine predate the military coup, Taliban takeover, and initiation of the full-scale Russian invasion, respectively. The only data source to which this does not apply is the GPI, which is from 2022.

Varying levels of cooperation preparedness within regions do not necessarily have to be problematic but could, all other things being equal, increase the risk of unbalanced cooperation in which the countries that are more prepared have disproportionate influence. This may especially be the case in situations of cooperation involving a group of countries in which one of them has much lower preparedness than the rest.

Figure 2.1: Water cooperation preparedness score by World Bank country income categorisation



Moving beyond geographical regions, figure 2.1 shows a breakdown of countries by cooperation preparedness score and World Bank income level classifications. What is striking here is that countries from each of the four income level categories are represented in all cooperation preparedness score categories apart from “very high”. In other words, countries with relatively high incomes do not necessarily have high preparedness levels, and countries with lower income levels can still be well-positioned for water cooperation. This being said, high and upper-middle income countries do make up the majority of countries with medium high, high, and very high water cooperation preparedness, so higher income levels often translate into higher water cooperation preparedness.

3. Trends in Transboundary Basin Cooperation in Africa

The Water Cooperation Global Outlook Report will for each edition contain a special regional focus. For this first edition transboundary water basin cooperation in Africa was selected as the first such focus.

The distribution of freshwater across Africa's countries and regions is uneven and depends heavily on the variability of rainfall in different climatic zones (FAO, 2021). A large extent of the continent's freshwater sources is transboundary – 90 per cent of the surface water is in the more than 60 transboundary rivers and lakes (Adeel et al., 2015; McCracken, 2018). Many countries in Africa are also dependent on groundwater resources. Around three quarters of the population relies on transboundary aquifers (Nijsten et al., 2018).

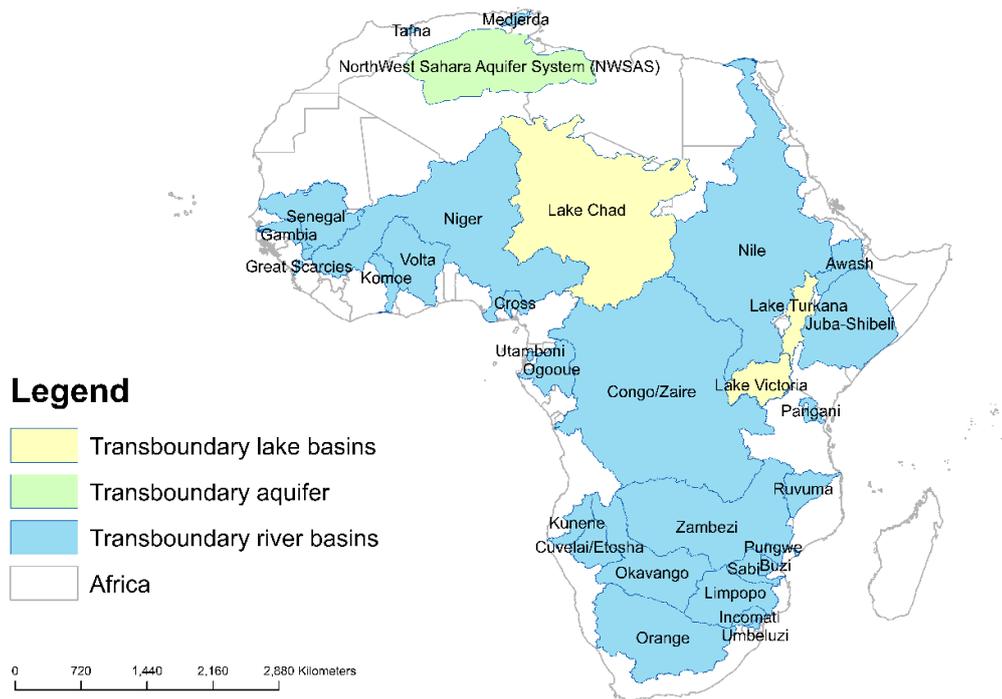


Well supplying groundwater to a district outside of Niamey, Niger, close to the Burkina Faso border.

The assessment of transboundary water basin cooperation in Africa included in total 32 basins: 28 transboundary river basins, three transboundary lake basins and one transboundary aquifer system, as shown in Map 3.1. The approach taken for this outlook report has been a mix of using primary and secondary sources to assess the water cooperation factors governance and leadership, financing, joint programming and data and information. By looking for innovation and lessons learned across

factors identified as being important for cooperation, the Outlook Report will use these data to construct a framework for analysis and learning to inform water decision-makers. For more information on selection of basins and additional discussions see Tropp, et al., 2023.

Map 3.1. Transboundary water systems included in the Water Cooperation Global Outlook Report.



Compared with other continents, Africa has relatively many operational water agreements on transboundary surface water, especially in the sub-Saharan region (UNESCO, 2021). The level of operational arrangements for transboundary cooperation varies among the African countries, with some basins having high coverage but others requiring more effort, and many countries lack available data. For example, out of 54 African countries, 14 countries have operational arrangements covering 70 - 90 per cent of their transboundary territory. Some five countries are covering between 50 and 70 per cent. Twelve countries with operational arrangements covering less than 50 per cent of their transboundary water territory. Some 22 countries lacked data (*Ibid.*). Having less than half of the country's transboundary surface water covered by inter-governmental agreements means that there is plenty of scope to increase transboundary water basin cooperation.

3.1 Assessing transboundary water basin cooperation in Africa

The analysis of the African transboundary water cooperation identified for each of the factors some of the key challenges associated with implementing them referring to specific examples linked to basin processes. This does not infer that these challenges only exist in the examples mentioned, indeed they are usually chosen to represent a challenge faced commonly across various cooperative processes. Linked to the challenges are the innovative approaches which are emerging to overcome specific challenges. It is positive to note that there is much innovation taking place and that it is geographically spread across the continent. Some of the innovations are drawn from international good practice, while others would appear to be locally developed solutions to overcoming a specific issue linked to cooperation in that context. From the analysis of the challenges and their associated innovations key learnings are derived, seeking to generalize our understanding of what can be done to support the factors of cooperation.

Table 3.1 provides a snapshot of some of the challenges and water cooperation innovations identified linked to governance and leadership. A similar analysis of challenges and innovations will also be done for the other water cooperation factors: data and information, joint programming and financing. In addition, each water cooperation factor will also include a learning section.

3.2 Learning from governance and leadership

Getting the governance and leadership right in the institutional architecture for cooperation on transboundary water basins is a key aspect to their success and impact. Negotiating the formation agreement, establishing joint institutions, ensuring they have the institutional and human capacities and material resources to deliver on their mandate represents a substantial investment for the member states. Bilateral and multilateral development partners contribute funding to some of these activities but much of the long-term costs are expected to be covered by the member states themselves. Approaches to ensuring the effective use of resources have shown an increase in the past decade. For instance, river basin organisations such as the Orange-Senqu River Commission (ORASECOM), the Senegal River Basin Development Authority (OMVS), Gambia River Development Organization (OMVG), The Zambezi Watercourse Commission (ZAMCOM) and the Limpopo Watercourse Commission (LIMCOM) have all now had responsibility for some degree of aquifer management included in their mandate, thus making use of existing institutional resources.

Other examples of efficiency gains involve a joint institution assuming responsibility for two or more hydrologically unrelated watercourses, such as the

Incomati and Maputo under the tripartite agreement and the Buzi, Pungwe, and Save under the BUPUSA agreement between Zimbabwe and Mozambique. These approaches, apart from representing a sensible multiple-use of resources, also indicate a high degree of commitment by basin states to ensuring improved cooperation of shared water resources in alignment with the SDG target 6.5. The issue of incorporating the views and interests of non-state actors as stakeholders in the transboundary cooperation process has been found to be notable by its absence in most basins internationally. Transboundary water management is still a highly state-centric enterprise with little explicit incorporation of local or indigenous communities nor of gender, youth, or migration issues. This is starting to change with some positive examples identified in the text above, however it is still an area in need of attention.



Lake in the Nyanga National Park , where the Save and Pungwe basins meet.

Looking at the challenges and associated innovations described above, what emerges is the importance of adopting a long-term approach to cooperation, with the commensurate resources to sustain it. There are no short cuts to building trust between riparians with contradictory interests and the only sustainable approach is to keep engaging with all the parties and implementing activities which are mutually acceptable to all the parties, no matter how small these steps may seem. If a state does not wish to join an agreement or institution at a certain point that position needs to be respected, both by the other basin states, but also (crucially), by the international development partners. The key is to keep them engaged in at least some of the activities and discussions to the degree that they can commit.

Table 3.1: Transboundary Water Basin Cooperation in Africa: Assessing challenges and innovations in governance and leadership.

Water Cooperation Factor	Challenge example	Innovation example
Governance and Leadership	Harmonization of legal frameworks between basin states	<p>The Tripartite Interim Agreement for Cooperation on the Protection and Sustainable Utilization of the Water Resources of the Incomati and Maputo Watercourses (2002) includes two watercourses under one agreement. This allowed the basin states to negotiate trade-offs across the two basins depending on where they had a more pressing allocation need, easing the process of reaching a binding agreement.</p> <p>Transformative innovation took place in the Stampriet Transboundary Aquifer System shared between Botswana, Namibia and South Africa. These countries - also members of the Orange-Senqu Basin Commission (ORASECOM) - have used this existing cooperative structure, to develop a new cooperative mechanism for the Stampriet Aquifer that is nested within ORASECOM. Such cooperative structures are also key to the conjunctive management of transboundary waters, where surface and groundwaters can be managed in an integrated manner to optimise water security and reduce conflicts between users.</p>
	Not every basin state is party to a basin-wide agreement	<p>Despite Egypt and Sudan not being party to the CFA they have continued participating in most activities of the NBI and assuming responsibilities such as the rotating chairperson role of the secretariat. This has maintained avenues for communication with the other states and reduced the possibility of disputes becoming conflicts.</p> <p>The Lake Chad Basin Commission (LCBC) at the outset only had the 4 littoral states as members however this allowed progress to be made between those states implementing actions to conserve the resources of the lake. Later other upstream countries progressively joined and were able to build on the strong working relationship already established. The incremental approach has in this case worked well.</p>
	Stakeholder participation, including gender mainstreaming, is limited by transboundary settings and security considerations	<p>The Lake Chad Basin Commission has established a stakeholder forum which is managed out of the secretariat, institutionalising the engagement of stakeholders in the work of the commission. An example of this is the Lake Chad Basin Governors' Forum, representing eight sub-national territories of four basin states with the aim of better responding to the needs and interest of local stakeholders. The forum was established in 2018 as part of the Regional Strategy for Stabilisation, Recovery, and Resilience as a countermeasure to the activities of Boko Haram in the region.</p> <p>Recognising the asymmetry in women's participation at the transboundary level an initiative was started in 2017 to engage senior women decision makers from their respective ministries representing foreign affairs and representing water management. This resulted in the formation of the Women in Water Diplomacy Network in the Nile and has contributed to building trust and enabling environment for cooperation. The aim is to enhance the collective capacity of women throughout the basin and to support the engagement of women water leaders in decision making and peacebuilding processes.</p>

4. Emerging water cooperation trends

The Outlook Report will make two different sets of conclusions. One linked to the global assessment of country water cooperation preparedness and another that concludes on challenges, innovations and learnings of transboundary water basin cooperation in Africa, as across the 32 assessed basins.

Resolving water challenges will require more cooperation, not less

While water cooperation can take many different forms, the characteristics of governance, leadership, financing, joint programming and investment, and data and information collection all play important roles for how well countries and basin organisations are prepared for water cooperation across international, national, and subnational jurisdictions, sectors and stakeholders.

It is expected that the role of cooperation will continue to grow in importance as water pressures are increasing and water management is becoming more dynamic (integrated and coordinated approaches), and with a greater complexity of actors. The growing importance of cooperation is also due to the cross-sector nature of water challenges and where many water decision-makers and managers are already struggling to cope with, for example demographic changes, the increasing water demands from all sectors, and the effects of too little or too much water created by the impacts of climate change.

Water stakeholders need to overcome cooperation deficits

The water cooperation preparedness index indicates global level water cooperation deficits. The cooperation connectivity across jurisdictions, sectors and stakeholders is in many instances low, and contextualized cooperation mechanisms and trust need to be advanced for cooperation to take firmer root. Between sectors, for example, the connectivity is low, and there is an opportunity to improve coordination both at the inter-ministerial level, and at the basin and sub-basin levels within and between countries. Below follows some tentative insights from the water cooperation preparedness index:

- The global assessment of countries' preparedness for water cooperation shows big deficits in how countries are interacting to build partnerships and collaborations at international, national, and sub-national levels. On average, the global cooperation preparedness is "medium low", whereas the most common water cooperation preparedness score is "low". More than 60 per cent of the assessed countries are scoring on the lower side (medium low, low, and

very low). Consequently, there is substantial room for improving water cooperation preparedness in most countries around the world.

- Europe is the region in which individual countries on average are best positioned for water cooperation.
- Water cooperation preparedness in Africa and Asia is around the global average.
- Oceania and the Americas are the regions in which countries are least well-prepared for water cooperation. In the Americas, both island and non-island states score well below average.
- SIDS have some of the lowest water cooperation preparedness scores. This is alarming since SIDS are hit hard by water related climate change impacts, such as sea level rise, saltwater intrusion into ground water aquifers, and tropical storms.
- In Europe, Africa, and Asia, especially, within-region differences in water cooperation are large, with some countries scoring much lower than their neighbours.
- Although countries with higher income levels often have relatively high water cooperation preparedness, this is not a given. While high national income levels seem beneficial for “very high” levels of water cooperation preparedness, water cooperation is not necessarily dependent on national income levels. For example, both low- and middle-income countries are found among the countries that rank as “high” preparedness for water cooperation. This is good news since it suggests that countries with lower income levels can be well-positioned for water cooperation and that any country can improve water cooperation both within and across countries.
- Countries that are scoring higher in the water cooperation preparedness index seem more likely to be prepared for water cooperation across jurisdictions, sectors, and stakeholders. This is because they have:
 - governance systems in place that can promote coordination and participation;
 - responsive leadership that facilitates cooperation by developing national policy frameworks and processes;
 - a higher priority on developing and sharing data and information; and
 - a higher priority to invest in water cooperation and preparedness to undertake programmatic and multistakeholder collaborations.

Key takeaways: Transboundary basin cooperation in Africa

From the analysis and discussion of the African cases three key features can be identified; gradualism, pragmatism, and the role of outside support. In various ways these have played a role in developing cooperation innovations to build enough trust in the process that cooperative outcomes can be reached. Three particular trends were identified:

The first, *gradualism*, is important in tempering expectations and keeping ambitions in check, with setbacks to be expected. A seemingly small gain can be built on over time and no matter how small will support an increase in trust between individuals. In several of the cases it is evident that a more ambitious plan of action would not have been acceptable to all the parties and an approach was taken of working on a limited set of issues for a period which, in several instances, led to an eventual expansion of the range of joint activities. In essence this affirms the adage that the technically optimal takes second place to the politically probable. The implication is that cooperation takes time, usually longer than is initially envisaged, something to keep in mind at the outset of such processes.

The second feature, *pragmatism*, can be seen in instances where states recognize that not all their interests are met in an agreement, however they are willing to proceed on the basis that the overall gains from allowing the cooperation process to proceed outweigh ideological objections they may hold. This is not to say that a state would abrogate its key policy objectives in pursuit of a cooperative outcome but rather that an incremental approach is taken whereby small gains can be added to over time. For this to work it is necessary for negotiators to develop sufficient trust with each other for them to move away from holding an absolute position which needs to be fulfilled and towards a set of interests which they aim to meet. This introduces a flexibility to satisfying those interests with benefits from an agreement identified and accrued to individual states to a sufficient degree that they would move away from their starting position on an issue and be satisfied with an outcome where their net benefit is of importance.



Lake Kivu, which lies along the border of Rwanda (high preparedness) and the Democratic Republic of the Congo (very low preparedness).

The final feature, the role of *outside support*, is especially important in overcoming large differences in power between countries. Power can be understood to be derived from the geographical position within the basin (upstream vs downstream), material wealth, military might, or technical capacity and can be an impediment to establishing mutual trust relations between states. Outside support, whether from a development finance institution such as the World Bank, an international bilateral development cooperation partner, a regional economic community or a non-governmental organization can contribute to smoothing some of the disparities in power and capacity between states through technical advice, organizational development, or training courses for staff. If well-structured this support serves to build trust between the individuals from different countries as they spend time together undergoing training courses, conducting studies, or engaging in discussions on organizational and institutional development.

Efforts to support cooperation on transboundary water management in Africa have not always paid attention to the above three features. However, it can be argued that the ones which have proved resilient over time and are leading to ever increasing levels of cooperation between states have dealt with these features, whether by design or by circumstance.

The role of trust is key

What emerges from key learnings of transboundary basin cooperation in Africa is the centrality of **the role of trust** in promoting cooperation. Trust implies accepting a certain degree of risk in the belief that a better outcome will result. Countries, represented by individual government officials, need to establish small gains which allow them to establish and build that trust relationship with their counterparts – at the level of the individual. Although it is governments which are the objects of international agreements it is the individuals representing them who need to take the chance of trusting each other enough for steps to be taken towards a cooperative process.

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The International Centre for Water Cooperation

The International Centre for Water Cooperation (ICWC) is a long-term collaboration between the Stockholm International Water Institute (SIWI), the Government of Sweden and the United Nations Educational, Scientific and Cultural Organization (UNESCO). It is a UNESCO Category II water-related centre as part of the Intergovernmental Hydrological Programme. The Centre is hosted by SIWI. The mission of ICWC is to generate and share knowledge on the state, trends and benefits of water cooperation, and to strengthen the capacities of technical and political actors for increased cooperation with respect to shared waters. More information is available at the Centre's [website](#).