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**Promotion and protection of human rights: human rights questions, including alternative approaches for improving the effective enjoyment of human rights and fundamental freedoms**

## **Human rights to safe drinking water and sanitation**

### **Note by the Secretary-General**

The Secretary-General has the honour to transmit to the General Assembly the report of the Special Rapporteur on the human rights to safe drinking water and sanitation, Pedro Arrojo Agudo, in accordance with Human Rights Council resolution [51/19](#).

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\* [A/78/150](#).



## **Report of the Special Rapporteur on the human rights to safe drinking water and sanitation, Pedro Arrojo Agudo**

### **Water as an argument for peace, twinning and cooperation**

#### *Summary*

Over half of the global population resides in countries sharing transboundary rivers, lakes or aquifers, making transboundary management essential for ensuring the rights to water and sanitation. Power asymmetries, inadequate and irresponsible application of the principle of national sovereignty, the growing impacts of climate change and the limitations of international law make it difficult to develop transboundary agreements that allow for sustainable and equitable management of transboundary waters, generating serious risks to the human security of hundreds of millions of people, producing mass migrations and serious risks of destabilization in entire regions.

To overcome these challenges, it is necessary to move from traditional approaches of managing water as a resource to ecosystem and human rights approaches at the basin level, developing the principles of equity, reciprocity and sustainability promoted by international water and human rights legislation. This means prioritizing the needs of populations and promoting cross-border public participation in the negotiation and development of agreements and institutions at the basin level, guaranteeing the participation of the most vulnerable populations in their capacity as rights-holders, and very particularly the effective participation of women.

By embracing an ecosystem-based approach and a human rights perspective, conflicts can be prevented, addressed and overcome. The necessary collaboration on water management is thus key to peace, cooperation and progress among the riparian peoples of transboundary basins, lakes and aquifers.

The present report explores this coherence and gives examples of successful transboundary cooperation and dialogue at the basin level that show the potential benefits of adopting a human rights approach to the sustainable management of transboundary waters.

## I. Introduction

1. Humanity is facing a global water crisis. Currently, 2 billion people are living without guaranteed access to safe drinking water and more than 4 billion without basic sanitation. Population growth and changes in urbanization, the intensification of agriculture, mining and industry generate demands that overwhelm the sustainability of aquatic ecosystems while generating discharges, often toxic, that pollute available flows. This global water crisis, aggravated by climate change, is increasing water insecurity and competition for available water flows, generating ecological and socioeconomic breakdowns<sup>1</sup> and jeopardizing the human rights of billions of people, and it could lead to massive population displacement, violence and the delegitimization of institutions at the local, national and international levels.<sup>2</sup>

2. Over half of the global population resides in the 153 countries with territory within at least one of the world's 286 transboundary river and lake basins and 592 transboundary aquifer systems.<sup>3</sup> Transboundary waters account for 60 per cent of the world's fresh water. As a result, a large fraction of the global population relies on shared resources for drinking water, food security, health, livelihoods and quality of life. Access to and use of water resources underpin the fulfilment of basic needs and can further support poverty reduction and regional security.<sup>4</sup> Furthermore, the increasing risks of drought and flooding due to climate change can be addressed only through collaborative management at the basin level. Thus, transboundary water management is fundamental to the meaningful realization of human rights, sustainable development, climate change adaptation, the fulfilment of the Sustainable Development Goals and, most notably, the preservation of peace and the promotion of cooperation between States sharing transboundary aquatic ecosystems.<sup>5</sup>

3. In keeping with the attention given to the management of transboundary basins in the interactive dialogue on the theme "Water for cooperation" at the United Nations Conference on the Midterm Comprehensive Review of the Implementation of the Objectives of the International Decade for Action, "Water for Sustainable Development", 2018–2028 (United Nations 2023 Water Conference) held in 2023, in the work and objectives of the Transboundary Water Cooperation Coalition and in Sustainable Development Goal 6, the present report explores the relationship between water, cooperation and peace from a human rights perspective, with a focus on the human rights to safe drinking water and sanitation.

4. The Special Rapporteur called for input from State and non-State actors for the report. In addition, three expert consultations were held at different stages of the production of the report, and bilateral meetings were held with experts from different regions.

## II. Rationale

5. In a "culture of peace" approach, conflicts signal problems, just as fever is a warning sign of infection. Therefore, conflicts could provide an opportunity to deal

<sup>1</sup> World Meteorological Organization, *State of Global Water Resources 2021* (Geneva, 2022).

<sup>2</sup> Aaron T. Wolf and others, "Managing water conflict and cooperation", in *State of the World 2005: Redefining Global Security, a Worldwatch Institute Report*, L. Starke, ed. (New York, W.W. Norton & Company, 2005).

<sup>3</sup> *Progress on Transboundary Cooperation: Global status of SDG indicator 6.5.2 and acceleration needs* (United Nations publication, 2021).

<sup>4</sup> United Nations Educational, Scientific and Cultural Organization, "Transboundary Water Cooperation and the Sustainable Development Goals" (2016/SC/HYD/SDGs-1 REV).

<sup>5</sup> United Nations, *Progress on Transboundary Water Cooperation*, pp. 1–4.

with problems. Approaching problems with non-violent strategies, dialogue and negotiation could lead, in the view of the Special Rapporteur, to peace and social progress.

6. For the Special Rapporteur, peace is not only the absence of war. It has a broader sense that rejects violence and social injustice, poverty, discrimination against women, racial segregation and other forms of violence. Consequently, the Special Rapporteur agrees with the views that understand “water for peace” as promoting equitable distribution of good-quality water through robust legal, institutional and policy frameworks prioritizing human dignity, fairness, inclusivity, greater social cohesion, sustainable use and effective management.<sup>6</sup> In this regard, water experts have developed the water diplomacy approach that focuses on dialogue between transboundary stakeholders to find reasonable, sustainable and peaceful solutions for the joint management of shared freshwater resources, promoting or informing cooperation and collaboration among riparian stakeholders.<sup>7</sup>

7. Many water conflicts stem from the perception of water as an economic resource to be managed under the paradigm of human dominance over nature. This perspective regards water as a divisible and controllable asset, which, unfortunately, fosters competition and disputes over its management and utilization, including alterations to the flow regime. Infrastructure, particularly dams, plays a significant role in modifying water flow, impacting hydropower generation and affecting various downstream activities, further exacerbating water control and usage tensions. Furthermore, water is a significant power lever that some may misuse in domestic politics or international relations to justify clashes. The reason is that water, rivers, lakes and springs, beyond their productive uses, embody people’s identity, emotions and cultural values. Consequently, water can motivate disputes and even armed conflicts. It can also be used in warfare strategies.

8. Beyond this competition for resources, conflicts also arise owing to the social and environmental impacts of large hydraulic works when inhabited valleys are flooded or fishing is ruined. The collapse of sediments into reservoirs causes serious problems leading to the subsidence of the deltas and the degradation of beaches. These areas no longer receive from rivers the sedimentary flow on which they depend, aggravating the impacts of rising sea levels. The alteration of continental nutrient flow from rivers to coastal platforms significantly affects marine fisheries, especially in plankton-poor seas, such as the Mediterranean. The drying up of wetlands and the overexploitation of aquifers increase the vulnerability of riverside communities to droughts and floods, whose intensity and frequency increase with climate change. But above all, conflicts arise owing to water contamination: organic contamination and excess nutrients, biological contamination with severe effects on public health, and toxic contamination that progressively poisons populations. Such effects on water quality are aggravated by the breakdown of aquatic biodiversity and its self-purifying functions in water flows.

9. In short, as new problems arise owing to the degradation of aquatic ecosystems and climate change risks increase, there is a clear need to move from the vision and management of water as a resource to new ecosystem approaches that understand rivers, lakes, wetlands and aquifers as living ecosystems whose sustainability is essential for the life and well-being of riparian communities.

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<sup>6</sup> See submission from the Geneva Water Hub in response to the call for inputs to this report, available at [www.ohchr.org/sites/default/files/documents/issues/water/cfis/ga78/cfi-ga78-sr-water-submission-Geneva-Water-Hub.pdf](http://www.ohchr.org/sites/default/files/documents/issues/water/cfis/ga78/cfi-ga78-sr-water-submission-Geneva-Water-Hub.pdf).

<sup>7</sup> Stockholm International Water Institute, “Water diplomacy: facilitating dialogues” (2019), available at <https://siwi.org/wp-content/uploads/2019/07/hlpf-policy-brief-3-july-web.pdf>.

10. From this ecosystem vision, rivers, both in national and cross-border basins, provide not only water but also multiple ecosystem services, such as those related to fishing, health, self-depuration, flow regulation and recreational activities, which can become even more valuable than the water resource itself, just as a forest can end up being more useful as a forest than as timber.

11. Both the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, in its articles 2(2) and 3(1), and the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses, in its articles 20 and 23, call for the conservation and restoration of ecosystems, promoting sustainable management from an ecosystem approach.

12. Climate change increases the urgency of the need to move towards this ecosystem approach to integrated water management at the basin level, as it is the only way to minimize the risks of increasingly severe and frequent droughts and floods.

13. Moreover, in transboundary basins, the obligation to guarantee the human rights to drinking water and sanitation becomes a shared obligation of the States that make up the basin.<sup>8</sup>

14. From an ecosystem approach, the complexity of values, functions and risks at stake is growing and, therefore, the ways that conflicts that arise are addressed must change. Adopting this approach in transboundary ecosystems incentivizes a shared interest in developing sustainable ecosystem management, creating opportunities for cooperation that can bring significant social, economic and political benefits to all parties involved.<sup>9</sup>

15. One of the key issues to address in these conflicts is power asymmetries. When conflicts arise within a country, there is at least a common governance framework and, therefore, there are institutional, administrative and legal tools to deal with them. However, the Special Rapporteur would like to emphasize that the existence of such a governance framework is not sufficient to resolve conflicts when power asymmetries influence the legal and institutional frameworks in place. For instance, the “national interest” principle is often biased toward powerful lobbies, justifying projects that endanger riverside communities’ human rights and vital needs.

16. The conflict raised by the Klamath River First Nations in the United States of America against hydroelectric dams provides a positive example. To save the salmon, the Yurok, Karuk and Hoopa Valley tribes began advocating dam removal in 2001. Following a gruelling two-decade fight, they succeeded, and the dams were scheduled for removal in 2023.<sup>10</sup>

17. The Zapotillo project,<sup>11</sup> in Mexico, initially consisted of building a large dam to store the flows of the Verde River and a large water transfer to the city of León, through a private concession to a transnational company. The dam posed a dual threat: flooding nearby villages and endangering the immense livestock production network of the Altos de Jalisco region amidst climate change. Following a prolonged conflict involving universities, social movements and institutions of the Catholic church, the Government of Mexico initiated a dialogue with those affected. As a result, they

<sup>8</sup> Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002) on the right to water, paras. 31 and 32; and [A/HRC/50/37](#), paras. 6–9 and 19–22.

<sup>9</sup> [A/HRC/54/32](#).

<sup>10</sup> Brittani R. Orona, “This is our home, this is our land: visualizing decolonization on the Klamath River Basin”, dissertation, University of California, Davis, 2022; B. “Toastie” Oaster, “Klamath River issues explained”, High Country News, 27 August 2021.

<sup>11</sup> See submission from the Instituto Tecnológico y de Estudios Superiores de Occidente (Mexico), available at [www.ohchr.org/en/calls-for-input/2023/thematic-report-78th-session-un-general-assembly-rights-water-and-sanitation](http://www.ohchr.org/en/calls-for-input/2023/thematic-report-78th-session-un-general-assembly-rights-water-and-sanitation).

agreed to lower the reservoir's level to prevent villages from being flooded and to create new alternatives for cities, such as the rehabilitation of urban networks, to reduce the current huge water losses.

18. Domestic conflicts like the ones described could help better identify the values at stake and the approaches to resolving similar cases at the international level. As in many other conflicts, social mobilization was vital to compensating for power asymmetries, allowing for dialogue processes that led to alternative solutions. However, ultimately, in the Special Rapporteur's opinion, only by strengthening legal and institutional frameworks that allow democratic water governance from a human rights-based approach is it possible to overcome these power asymmetries in water conflicts.

19. Often, when conflicts arise in transboundary basins, in addition to values and interests at stake similar to those that motivate internal conflicts, other values and interests emerge that make it difficult to resolve them. One argument that usually arises is national sovereignty over watercourses in national territories. Although it makes sense to speak of national sovereignty over air or maritime spaces in relation to some issues, such as transit of goods, persons or vehicles, it must be understood that, just as storms do not recognize such spaces, rivers do not recognize borders.

20. When it comes to managing a transboundary lake, where the impacts of any initiative are similar for all riparian communities of the different States, sharing responsibilities and plans is easier. The International Commission for the Protection of Lake Constance is a good example of an ecosystem-based, sustainable and participative management approach involving Austria, Germany and Switzerland.<sup>12</sup>

21. However, cooperative management by communities and States in river basins is more complex, as there are asymmetries in the consequences, impacts, benefits and costs of any initiative. Upstream activities often affect downstream populations, for example, through water pollution. However, certain downstream actions can also affect upstream populations. For example, a large dam may cut off the navigability used by upstream countries to reach the coast, while fishing for species that need to move upriver will collapse. In any case, cooperation should be based on equality and reciprocity of rights and obligations, both upstream and downstream, avoiding significant damage and ensuring the sustainability and health of river ecosystems as a challenge shared by the different riparian States.<sup>13</sup>

22. Although Governments have a central role in representing the interests of transboundary communities, the Special Rapporteur has verified the ease with which riparian communities engage in dialogue and understand each other, with or without borders. Rivers have traditionally created twinning links between riverside communities. All of this reinforces the convenience and even the need to offer spaces for meetings and dialogue between riparian communities, without questioning the role of Governments.

23. One example that raises concerns for the Special Rapporteur is the international agreement to construct the Hidrovía Paraná-Paraguay, involving Argentina, the Plurinational State of Bolivia, Brazil, Paraguay and Uruguay. This project could potentially negatively affect the Pantanal, the largest wetland in the world, which plays a crucial role in regulating river flows during droughts and floods. The impacts of climate change further increase the vulnerability of riverine populations, who heavily rely on fisheries for their livelihoods. While the willingness of the

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<sup>12</sup> Jan Baer and others, "Managing Upper Lake Constance fishery in a multi-sector policy landscape: beneficiary and victim of a century of anthropogenic trophic change", in *Inter-Sectoral Governance of Inland Fisheries* (St. John's, Too Big to Ignore, 2017), pp. 32–47.

<sup>13</sup> Salman M. A. Salman, "Downstream riparians can also harm upstream riparians: the concept of foreclosure of future uses", *Water International*, vol. 35, No. 4 (2010), pp. 350–364.

participating States to engage in dialogue is encouraging, it is important to acknowledge that the agreement primarily benefits influential and productive sectors. Consequently, conducting a strategic environmental assessment that allows public participation, particularly from riparian communities and Indigenous Peoples, is imperative to ensure their concerns are considered.<sup>14</sup>

24. The United Nations Water Conference highlighted the transformative power of water in promoting peace, sustainable development, climate change adaptation and regional integration.<sup>15</sup> In this regard, adopting a human rights-based approach to transboundary waters becomes crucial for the Special Rapporteur. Such an approach ensures equal participation, transparency, accountability and access to information. This can effectively support peacebuilding efforts by advancing water security and preventing conflicts associated with water scarcity, access or management.

### III. Human rights to safe drinking water and sanitation in transboundary basin management

25. In quantitative terms, the amount of water required to fulfil the human rights to safe drinking water and sanitation is relatively small. Previous reports of the Special Rapporteur have estimated that it constitutes no more than 3 per cent of the total water abstracted from nature for various purposes.<sup>16</sup> However, in transboundary water conflicts, the emphasis is often on the quantity of water flows at stake. It is important to note that the violation of the human rights to safe drinking water primarily stems from the contamination of these flows, resulting from inadequate wastewater sanitation and, more significantly, toxic pollution originating from activities such as mining, intensive agriculture or industrial discharges. Even if there is an availability of water flows, such pollution poses a threat to the human right to safe drinking water.

26. While the responsibility for the obligations and realization of human rights rests with each State, in transboundary basins States will depend on each other in meeting these obligations. Conflicting or cooperative interactions between States can impact the fulfilment of these rights in the countries involved and inter-State relations, especially in territories with scarce water resources, where toxic spills occur or that face a high risk of drought or flooding.

#### A. Impact of transboundary water conflicts on the realization of human rights

27. In the absence of transboundary agreements and institutions, States may not consider the needs of neighbouring countries. In such cases, the consequences often fall on basin populations, especially in relation to drought scarcity and flood risk cycles, fuelling tension between the countries involved.<sup>17</sup>

<sup>14</sup> Claudio Rafael Mariano Baigún and Priscilla Gail Minotti, “Conserving the Paraguay-Paraná Fluvial Corridor in the XXI century: conflicts, threats, and challenges”, *Sustainability*, vol. 13, No. 9 (2021).

<sup>15</sup> Summary of the Proceedings of the United Nations Conference on the Midterm Comprehensive Review of the Implementation of the Objectives of the International Decade for Action, “Water for Sustainable Development”, 2018–2028, pp. 17–18, available at [www.un.org/pga/77/wp-content/uploads/sites/105/2023/05/PGA77-Summary-for-Water-Conference-2023.pdf](http://www.un.org/pga/77/wp-content/uploads/sites/105/2023/05/PGA77-Summary-for-Water-Conference-2023.pdf).

<sup>16</sup> A/HRC/48/50, para. 29.

<sup>17</sup> Jeyhun Veliyev, Sofya Manukyan and Tsira Gvasalia, “The environment, human rights, and conflicts in the South Caucasus and Turkey: transboundary water cooperation as a mean to conflict transformation”, *The Caucasus Edition: Journal of Conflict Transformation*, vol. 3, No. 1 (January 2019), pp. 107–140.

28. As the United Nations Environment Programme (UNEP) warns,<sup>18</sup> the construction of large dams, without prior agreements at the basin level, and diversions of upstream flows can hinder the ability of communities in downstream neighbouring countries to meet their water requirements, including their basic needs linked to human rights. As an example, the Helmand River basin is shared by Afghanistan and the Islamic Republic of Iran, both having a strong dependence on the river for agriculture, hydroelectric power and drinking water.<sup>19</sup> Although a water-sharing agreement was established in 1973, disputes over the flow volume and water diversions have raised concerns about water availability downstream<sup>20</sup> in Sistan and Baluchestan.<sup>21</sup> Iraq, the Syrian Arab Republic and Türkiye share the Euphrates and Tigris rivers, over the management of which there have been negotiations and agreements that have been broken, especially because of the Southeastern Anatolia Project (GAP) in Türkiye, involving the construction of 22 large dams without previous agreement at the basin level,<sup>22</sup> and extreme water shortages in Iraq and the Syrian Arab Republic affecting human rights to safe water and sanitation.<sup>23</sup>

29. Toxic pollution of transboundary watercourses is on the rise, as in the Tumbes River shared by Ecuador and Peru.<sup>24</sup> In Kyrgyzstan, uranium tailings threaten shared waters in Central Asia.<sup>25</sup> Selenium contamination from mines in the Elk Valley in Canada affects populations in the United States.<sup>26</sup>

30. In the 286 transboundary basins studied by UNEP, 30 per cent of inhabitants, some 900 million people, live with a very high exposure to floods and droughts, which means that there are serious risks to their human rights to drinking water and sanitation, among other risks; furthermore, in 218 of them, the flows are heavily polluted by excess nutrients and wastewater.<sup>27</sup> Contamination through salinization and by nitrates and other non-toxic pollutants can also endanger public health in neighbouring countries, especially when treatment costs are unaffordable.

31. Among the multitude of cases that could be cited, the massive contamination of the Lempa River, shared by El Salvador, Guatemala and Honduras, on which more than 1 million people in El Salvador alone depend,<sup>28</sup> is extremely worrying.

<sup>18</sup> United Nations Environment Programme, *Transboundary River Basins: Status and Trends, Summary for Policy Makers* (Nairobi, 2016).

<sup>19</sup> Farnaz Shirani Bidabadi and Ladan Afshari, “Human right to water in the Helmand Basin: setting a path for the conflict settlement between Afghanistan and Iran”, *Utrecht Law Review*, vol. 16, No. 2 (October 2022), pp. 150–162.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> Güneş Murat Tezcür, Rebecca Schiel and Bruce M. Wilson, “The effectiveness of harnessing human rights: the struggle over the Ilisu Dam in Turkey”, *Development and Change*, vol. 52, No. 6 (November 2021), pp. 1343–1369.

<sup>23</sup> Ali Al-Bayaa and Mostafa Mashhad, “Water scarcity and environmental peacebuilding: a lens on southern Iraq”, *E-International Relations*, 18 May 2023.

<sup>24</sup> Congress of the Republic of Peru, “Denuncian grave contaminación del Río Tumbes”, press release, 1 June 2018, available at [www.congreso.gob.pe/Storage/tbl\\_notas\\_de\\_prensa/fld\\_121\\_PDF\\_file/997-g2Sd1Sp3Me6Vr5X.pdf](http://www.congreso.gob.pe/Storage/tbl_notas_de_prensa/fld_121_PDF_file/997-g2Sd1Sp3Me6Vr5X.pdf).

<sup>25</sup> J. A. Corcho Alvarado and others, “Radioactive and chemical contamination of the water resources in the former uranium mining and milling sites of Mailuu Suu (Kyrgyzstan)”, *Journal of Environmental Radioactivity*, vol. 138 (December 2014), pp. 1–10.

<sup>26</sup> F. Richard Hauer and Erin K. Sexton, “Transboundary Flathead River: Water Quality and Aquatic Life Use”, report prepared for Glacier National Park, Montana, United States of America, 4 March 2013, available at [https://files.cfc.umt.edu/cesu/NPS/UMT/2008/08Hauer\\_GLAC\\_water\\_quality\\_fnl rpt.pdf](https://files.cfc.umt.edu/cesu/NPS/UMT/2008/08Hauer_GLAC_water_quality_fnl rpt.pdf).

<sup>27</sup> United Nations Environment Programme, *Transboundary River Basins*.

<sup>28</sup> Gabriel Mauricio Chavarría Peccorini, “Gestión Integral del Recurso Hídrico, un enfoque para el abordaje del conflicto por el vertido de aguas mieles del café en la Cuenca Alta del Río Lempa”, master’s dissertation, El Colegio de Michoacán A.C., 2021.



32. Large flooding events can, in turn, disrupt water and sanitation infrastructure, impeding the provision of safe drinking water. For instance, flooding along the Shabelle River in Somalia in 2017 affected sewer systems and resulted in cholera cases and water quality-related fatalities, with limited warning due to the lack of a transboundary agreement.<sup>29</sup> The Ganges-Brahmaputra-Meghna basin, shared by Bangladesh, China, India and Nepal, has an immense and fertile delta in Bangladesh, which is one of the regions most vulnerable to floods and has almost 170 million inhabitants. Sharing information at the basin level is essential to protect the population from these risks.<sup>30</sup>

33. Rivers, lakes and wetlands also provide an essential food source for many communities through fisheries. For this reason, conflicts also arise over the construction of dams or in the face of polluting activities that degrade or collapse fisheries. The construction of large hydroelectric dams in the Mekong region and its associated consequences vividly illustrate how what is presented as being in the national interest, particularly energy needs, is frequently prioritized over the human rights of local communities.<sup>31</sup> The impacts of large hydropower dams, together with polluting discharges, are severely affecting the rich fisheries of the Mekong Basin, on which the food security of 60 million people depends.<sup>32</sup> The Tonle Sap Lake in Cambodia, where fishing is the direct livelihood of 1 million people, provides an example of the complex context of the Mekong Basin.<sup>33</sup>

34. All these impacts, whose effects on the human rights of populations are due to the lack of cooperation between States in transboundary river basins and aggravated by climate change, endanger the human security of millions of people,<sup>34</sup> cause mass migration and even destabilize entire regions,<sup>35</sup> as is occurring along the Tigris and Euphrates rivers in southern Iraq,<sup>36</sup> in the Islamic Republic of Iran, with domestic protests,<sup>37</sup> and in the Inner Niger Delta, where there have been hundreds of deaths due to violent clashes between Fulani herders and Bambara and Dogon farmers, which favour the growth of armed groups in the region.<sup>38</sup>

<sup>29</sup> Abdulrahman Mohamud Dirie, “Human rights issues on transboundary waters: a case study of Shabelle and Juba River conflicts”, Pan African University Institute of Water and Energy Sciences (including Climate Change), 2019.

<sup>30</sup> Kelly M. Kibler, Robin K. Biswas and Andrea M. Juarez Lucas, “Hydrologic data as a human right? Equitable access to information as a resource for disaster risk reduction in transboundary river basins”, *Water Policy*, vol. 16 (2014), pp. 36–58.

<sup>31</sup> Philip Hirsch, “Scaling the environmental commons: broadening our frame of reference for transboundary governance in Southeast Asia”, *Asia Pacific Viewpoint*, vol. 61, No. 2 (August 2020).

<sup>32</sup> E. Baran and U. Borin, “The importance of the fish resource in the Mekong River and examples of best practices”, in *From sea to source: International guidance for the restoration of fish migration highways*, Peter Gough, ed. (Regional Water Authority Hunze en Aa’s, Veendam, Kingdom of the Netherlands, 2012).

<sup>33</sup> Asian Development Bank, *The Tonle Sap Basin Strategy* (Manila, 2005).

<sup>34</sup> Alyssa Offutt, “A gendered perspective on the multiple scales of water conflict”, in *Gender Dynamics in Transboundary Water Governance, Feminist Perspectives on Water Conflict and Cooperation*, Jenniver Sehring, Rozemarijn ter Horst and Margreet Zwarteveen, eds. (Routledge, 2023).

<sup>35</sup> S. C. McCaffrey, “A human right to water: domestic and international implications”, *Georgetown International Environmental Law Review*, vol. 5, No. 1 (1992), pp. 1–24.

<sup>36</sup> International Organization for Migration, *Water Quantity and Water Quality in Central and South Iraq: A Preliminary Assessment in the Context of Displacement Risk*, 2020.

<sup>37</sup> Minority Rights Group International and Centre for Supporters of Human Rights, “Protests, discrimination and the future of minorities in Iran”, 2022.

<sup>38</sup> Wetlands International, “Water, Peace and Security partnership: addressing human security risks related to water in Mali”, 15 February 2019.

## B. Peacebuilding and cooperative benefits of a human rights-based approach

35. Ensuring access to water and sanitation contributes positively to conflict prevention, peacebuilding and cooperation, particularly in post-conflict situations.<sup>39</sup> The reconstruction of water systems symbolizes a return to normalcy and fosters an environment conducive to peace.<sup>40</sup>

36. In line with this, the Security Council, in its resolution 2282 (2016), encouraged States “to consider the human rights dimensions of peacebuilding” during the universal periodic review process of the Human Rights Council.

37. Creating transboundary basin organizations helps to manage problems, such as water stress in droughts or flood risks, while creating mechanisms for the peaceful resolution of possible conflicts.<sup>41</sup> Such cooperation can facilitate integrated and sustainable management of ecosystems and their resources, with multiple benefits for all basin States.<sup>42</sup>

38. Incorporating a human rights-based approach focuses transboundary cooperation on the population’s needs while requiring transboundary water governance to be open to public participation. Creating spaces for dialogue at the basin level between government actors, local communities and the general population facilitates peaceful relationships within and between countries. Examples in Africa include the Charters of the Lake Chad Basin, the Senegal River Basin and the Niger River Basin, in which discussions regarding the right to water and basin institutions are open to cross-border public participation.<sup>43</sup>

39. Security Council resolution 2682 (2023), by which the Council extended the mandate of the United Nations Assistance Mission for Iraq (UNAMI) for one year, incorporates the facilitation of regional dialogue and cooperation on several matters, including water. Recent research conducted by the Department of Political and Peacebuilding Affairs, in partnership with UNAMI and the climate security mechanism, has shed light on the interlinkages between climate change, peace and security in Iraq. Specifically, the research highlights the risks posed by climate change in terms of decreasing water availability in Iraq and spurring potential tensions over shared water sources. The study presents possible entry points to mitigate and manage climate-related risks in an inclusive manner. The Tigris-Euphrates basin is home to approximately 54 million people, making effective water management a critical factor in ensuring peace and stability in the region.<sup>44</sup>

<sup>39</sup> Global High-level Panel on Water and Peace, *A Matter of Survival* (Geneva, 2017), pp. 14–16, 28 and 69–71; and Ashok Swain, “Water and post-conflict peacebuilding”, *Hydrological Sciences Journal*, vol. 61, No. 7 (2016).

<sup>40</sup> The Geneva List of Principles on the Protection of Water Infrastructure, available at [www.genevawaterhub.org/resource/geneva-list-principles-protection-water-infrastructure](http://www.genevawaterhub.org/resource/geneva-list-principles-protection-water-infrastructure).

<sup>41</sup> Aaron T. Wolf, Shira B. Yoffe and Mark Giordano, “International waters: identifying basins at risk”, *Water Policy*, vol. 5, No. 1 (2003).

<sup>42</sup> Claudia W. Sadoff and David Grey, “Beyond the river: the benefits of cooperation on international rivers”, *Water Policy*, vol. 4, No. 5 (2002).

<sup>43</sup> Makane Moïse Mbengue and Nwamaka Odili, “West African approaches to international water law and treaty practice”, in *Research Handbook on International Water Law* (Cheltenham, Edward Elgar Publishing Limited, 2019). Makane Moïse Mbengue, “Les Chartes de l’eau: vers une nouvelle conception de la gestion des ressources en eau partagées en Afrique?” in *L’Afrique et le droit international: variations sur l’organisation internationale. Liber Amicorum Judge Raymond Ranjeva* (Paris, Editions Pedone, 2013).

<sup>44</sup> Department of Political and Peacebuilding Affairs, “The interlinkages between climate, peace and security in Iraq”, April 2023. Available at [https://dppa.un.org/sites/default/files/dppa\\_desk\\_study\\_on\\_the\\_interlinkages\\_between\\_climate\\_peace\\_and\\_security\\_in\\_iraq.pdf](https://dppa.un.org/sites/default/files/dppa_desk_study_on_the_interlinkages_between_climate_peace_and_security_in_iraq.pdf).

## IV. International legal framework

40. International human rights law and international water law establish State obligations and a framework for inter-State cooperation and dispute resolution based on international agreements, global conventions and basin-specific treaties, customary law, and legal norms and principles, as well as national efforts that could be scaled up or coordinated on a transboundary level.

### A. Obligations of international human rights law

41. The human right to water is considered implicit in articles 11 and 12 of the International Covenant on Economic, Social and Cultural Rights,<sup>45</sup> which cover the right to an adequate standard of living and the right to the highest attainable standard of health, respectively. In 2002, the Committee on Economic, Social and Cultural Rights affirmed in general comment No. 15 that the human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.

42. The essential role of cooperation in the fulfilment of economic, social, and cultural rights is recognized by State parties in the Covenant, which provides that assistance and joint action are essential to full realization of the rights. In that regard, as noted in general comment No. 15, international cooperation requires that countries should not interfere with the enjoyment of the right to water in other countries, and activities developed within the jurisdiction of a State party should not deprive another country of the ability to realize the right to water for persons in its jurisdiction.<sup>46</sup> The Committee recognizes that actions in one State can affect the human right to water in another State if they share freshwater sources. The use of the word “respect” implies an obligation to refrain from actions that can affect the right to water of the population in other countries.<sup>47</sup>

43. General comment No. 15 also states that environmental hygiene is an aspect of the right to health, encompassing taking steps on a non-discriminatory basis to prevent threats to health from unsafe and toxic water conditions. Following the Committee’s rationale, in a transboundary context, this implies an extraterritorial obligation not to pollute the water sources of rights holders from other countries.

44. Although general comments are not binding, they are considered soft law and have been upheld in some court cases concerning the prevention of international harm, including *Delia Saldias de Lopez v. Uruguay*.<sup>48</sup>

45. Likewise, the International Court of Justice concluded in its advisory opinion on the Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory that Israel was responsible, in any territory in which it exercised its jurisdiction, for the consequences of its acts affecting the human rights to economic, social and cultural rights. That includes the right to water of people beyond its territory.

<sup>45</sup> General comment No. 15 (2002) on the right to water.

<sup>46</sup> General comment No. 15 (2002), para. 31.

<sup>47</sup> Jimena Murillo Chávarro, *The Human Right to Water: A Legal Comparative Perspective at the International, Regional and Domestic Level* (University of Ghent, 2015). Available at <https://biblio.ugent.be/publication/5698186>.

<sup>48</sup> Alan Boyle, “Human rights and the environment: where next?” *European Journal of International Law*, vol. 23, No. 3 (October 2012).

## B. Human rights considerations in international water law

46. International water law supports the realization of human rights in transboundary contexts even without explicitly including them. Many of the principles of international water law are codified in the Convention on the Law of the Non-navigational Uses of International Watercourses, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes and its Protocol on Water and Health, supporting transboundary obligations regarding water and sanitation rights. These principles provide a legal basis that, along with the International Covenant on Economic, Social and Cultural Rights, supports transboundary obligations related to the rights to water and sanitation.

47. The principle of equitable and reasonable utilization is codified in articles 5 and 6 of the Convention on the Law of the Non-navigational Uses of International Watercourses establishing how all basin countries should share water resources. Article 10 of the Convention provides that there is no priority of uses, which contradicts the priority of satisfying the human rights at stake; however, it also establishes that a conflict between water uses must be resolved “with special regard being given to the requirements of vital human needs”. By establishing the importance of vital human needs, it can be understood that the Convention indirectly considers the human right to water.

48. The principle of no significant harm established in both Conventions requires States to perform due diligence within their territories to ensure that substantial harm is not caused to riparian countries.<sup>49</sup> As a result, States must ensure that their own actions and those of private actors in their territories are managed, in order to prevent significant transboundary impact.<sup>50</sup> Although it is difficult to define significant harm in abstract terms, it is argued that any impacts that prevent the realization of vital human needs could constitute notable harm to riparian countries and therefore are prohibited under international law.<sup>51</sup> As a result, the obligation to take all appropriate measures to prevent, control and reduce any transboundary impact has an extraterritorial character. The often-overlooked importance of sanitation is linked to this principle, as poor sanitation can lead to significant harm. Along the same lines, the Protocol on Water and Health establishes that effective protection should be given to drinking water sources and that preventive measures should be taken to avoid harming water sources.

49. Furthermore, the principle of non-discrimination enables individuals who have experienced or are likely to experience significant transboundary harm to gain access to legal systems, judicial procedures and remedies in the harm-causing State.<sup>52</sup> This principle applies to all persons regardless of where they live, their nationality or their location when the harm occurred, enabling them to act against a different State. While the principle has yet to be well-tested in practice<sup>53</sup> and does not guarantee access to

<sup>49</sup> Alistair Rieu-Clarke, “Transboundary hydropower projects seen through the lens of three international legal regimes – foreign investment, environmental protection and human rights”, *International Journal of Water Governance*, vol. 3, No. 1 (January 2015).

<sup>50</sup> Jimena Murillo Chávarro, “Extraterritorial obligations to ensure the enjoyment of the human right to water in transboundary context”, *Human Rights & International Legal Discourse*, vol. 9, No. 1 (2015).

<sup>51</sup> *Ibid.*

<sup>52</sup> Convention on the Law of the Non-navigational Uses of International Watercourses, art. 32.

<sup>53</sup> Rémy Kinna, “Non-discrimination and liability for transboundary acid mine drainage pollution of South Africa’s rivers: could the UN Watercourses Convention open Pandora’s mine?”, *Water International*, vol. 41 No. 3 (2016).

justice,<sup>54</sup> it means that rights can be enforced directly rather than relying on State-to-State interactions.

50. In addition, under the principle of non-discrimination, the Convention on the Law of the Non-navigational Uses of International Watercourses allows individuals to access judicial proceedings in other countries; this, however, depends on the remedy options in the State where the harm has been caused.

51. Many other principles of international water law in general and articles of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes indirectly support the human rights to water and sanitation through maintenance of the integrity of the water source on which these rights depend. For example, the principle of prior notification of possible adverse effects should enable States to prepare for and mitigate potential impacts on water sources.<sup>55</sup>

## V. Promising practices to address human rights in transboundary basins

52. As noted by the Global High-level Panel on Water and Peace, co-convened by 15 countries, transboundary water cooperation mechanisms may not always be able to prevent political tensions, but they always serve as an avenue for communication and dialogue and provide a viable vehicle towards peace.<sup>56</sup> One example is the Committee for Coordination of Investigations of the Lower Mekong Basin, which continued its activities during the armed conflict in Viet Nam, paving the way for peaceful post-conflict cooperation in South-East Asia. The Indus Waters Treaty 1960 between the Government of India, the Government of Pakistan and the International Bank for Reconstruction and Development remained in force, and the Permanent Indus Commission established by that treaty continued to serve as the channel of communication between India and Pakistan during armed hostilities in the 1960s and 1970s. The Senegal River Basin Development Organization, as an arbitration framework, avoided a conflict between Mauritania and Senegal in 2000, and from 2002, the Senegal River Waters Charter constituted a legal instrument to prevent or manage future crises in the Senegal River Basin.<sup>57</sup>

### A. Basin-specific cooperation

53. Basin-specific cooperation offers the opportunity to adapt and reinforce international agreements with transboundary treaties and to develop platforms that support implementation, discussion and conflict resolution through basin organizations and engagement in informal cooperation where more formal channels have yet to be established.

54. The Senegal River Waters Charter is one treaty that specifies the right to safe drinking water and gives priority to meeting vital human needs.<sup>58,59</sup> The agreement was signed in 2002 by Mali, Mauritania and Senegal, and by Guinea in 2006. It builds

<sup>54</sup> Alistair Rieu-Clarke, “Transboundary hydropower projects seen through the lens of three international legal regimes - foreign investment, environmental protection and human rights”.

<sup>55</sup> Convention on the Law of the Non-navigational Uses of International Watercourses, art. 12.

<sup>56</sup> Global High-level Panel on Water and Peace, *A Matter of Survival* (Geneva, 2017), p. 33.

<sup>57</sup> Madiodo Niasse and others, *Enjeux émergents de gestion des eaux partagées en Afrique*, Madiodo Niasse, ed. (Senegal, Pôle Eau de Dakar, 2022), pp. 12–20.

<sup>58</sup> Ibid.

<sup>59</sup> Adele J. Kirschner, “The human right to water and sanitation”, in *Max Planck Yearbook of United Nations Law*, vol. 15, Armin von Bogdandy and Rüdiger Wolfrum, eds. (Koninklijke Brill N.V., 2011).

on a body of agreements regarding the basin implemented by the Senegal River Basin Development Organization.

55. The Niger Basin Water Charter, signed by Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Guinea, Mali, the Niger and Nigeria, also codifies this right<sup>60</sup> and considers it key to guiding basin cooperation.<sup>61</sup> This Charter complements an established river basin organization, the Niger Basin Authority, and establishes obligations for prior notification of and consultation regarding measures with all water users through transboundary environmental impact assessments.<sup>62</sup> The Lake Chad Water Charter recognizes the human right to water, linked to equitable and sustainable use of ecosystems.<sup>63</sup> Lastly, the agreement between the Republic of Moldova and Ukraine on the Dniester River identifies the right to water as an essential principle of cooperation.

56. Many other treaties that do not explicitly consider the human rights to water and sanitation nevertheless offer provisions that favour their realization.<sup>64</sup> For instance, when negotiating the water allocation of the Cuareim River Basin, Brazil and Uruguay established that the provision of potable water has priority of use.<sup>65</sup> The Boundary Waters Treaty of 1909 between Canada and the United States also established that domestic and sanitary water use was the highest priority, followed by navigation, and power and irrigation (art. 8). Both cases support a right to water through the provision of sufficient water resources, while the Boundary Waters Treaty also considers enough water for sanitation.

57. In Central Asia, after the dissolution of the Union of Soviet Socialist Republics, shortages may have arisen in riparian countries; however, the agreements signed guarantee water flows for all, in particular sufficient water for domestic use.<sup>66</sup>

58. Transboundary basin agreements to secure domestic supplies in drought cycles are also being proposed between Botswana, Lesotho and South Africa (see [A/HRC/33/49/Add.3](#)).

59. The codification of water quality obligations can also protect the right to safe water. For instance, the agreements between Mexico and the United States concerning the Colorado River did not define the required water quality at the Mexican border, where salinity exceeded acceptable drinking water thresholds. Mexico and the United States subsequently adopted Minute 242 to limit salinity<sup>67</sup> and ultimately secure the right to drinking water supply downstream.<sup>68</sup>

60. Some transboundary basins have legal provisions that protect not only water quality but also the good status of aquatic ecosystems, as in the case of European Union transboundary basins. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action

<sup>60</sup> Ibid.

<sup>61</sup> Christina Leb, "The right to water in a transboundary context: emergence of seminal trends", *Water International*, vol. 37, No. 6 (2012).

<sup>62</sup> See submission from the Geneva Water Hub, available at [www.ohchr.org/en/calls-for-input/2023/thematic-report-78th-session-un-general-assembly-rights-water-and-sanitation](http://www.ohchr.org/en/calls-for-input/2023/thematic-report-78th-session-un-general-assembly-rights-water-and-sanitation).

<sup>63</sup> Mbengue and Odili, "West African approaches to international water law and treaty practice". Mbengue, "Les Chartes de l'eau: vers une nouvelle conception de la gestion des ressources en eau partagées en Afrique?".

<sup>64</sup> *Handbook on Water Allocation in a Transboundary Context* (United Nations publication, 2021).

<sup>65</sup> Christina Leb, "The right to water in a transboundary context: emergence of seminal trends".

<sup>66</sup> Danijel Javorić Barić, "Water agreements in Central Asia and their impact on human rights", *Pravnik: časopis za prav druš pitanja*, vol. 50, No. 100 (2016).

<sup>67</sup> Jimena Murillo Chávarro, "Extraterritorial obligations to ensure the enjoyment of the human right to water in transboundary context", *Human Rights & International Legal Discourse*, vol. 9, No. 1 (2015).

<sup>68</sup> Ibid.

in the field of water policy (Water Framework Directive) requires the good chemical status of water and the good ecological status of each water body, which reduces drinking water treatment costs, among other benefits.

61. The Accident Emergency Warning System of the Danube River Basin enables countries to respond to potentially hazardous spills and shut off drinking water intakes until adequate flow quality can be ensured.

62. Within the Elbe River Basin, Czechia and Germany developed an action programme to identify sources of water quality impacts, including poorly functioning wastewater treatment plants.<sup>69</sup> This effort helped set joint priorities, mobilize cost-sharing between the countries and obtain funding from the European Union to update wastewater treatment plants in Czechia.<sup>70</sup> These efforts not only improve the realization of the right to sanitation in Czechia but also protect the right to safe drinking water in Germany. A similar collaboration over wastewater treatment was established between Belgium and Luxembourg to treat water jointly.<sup>71</sup>

63. Benefit-sharing can also extend to flood control, as seen in the Columbia River, where the United States pays Canada for the flood mitigation benefits provided by Canadian dams.<sup>72</sup>

64. The Mekong River Commission created a platform for information exchange and began publicly sharing policy and technical papers, thus making information more broadly accessible in the basin.<sup>73</sup> Civil society also promotes transboundary dialogues, research projects and basin-wide initiatives, such as the use of alternative energy sources.<sup>74</sup>

65. Transboundary cooperation has also created spaces for public participation in the Okavango River Basin (shared by Angola, Botswana and Namibia), through the establishment of a basin-wide forum that facilitates exchanges between participants of different basin States and exchanges with the Permanent Okavango River Basin Water Commission as an observer to the Commission.<sup>75</sup> The Lake Victoria beach management units have helped engage communities in implementing transboundary agreements.<sup>76</sup>

66. Recent transboundary negotiations between Canada and the United States have created space for recognition of the sovereign decision-making rights of Indigenous Peoples in the Columbia River Basin.

67. Efforts such as those of the Blue Peace movement should also be highlighted. This long-term Swiss diplomatic initiative seeks collaboration between different actors across borders to promote equitable agreements on shared water resources and

<sup>69</sup> Stefan Lindemann, “Water regime formation in Europe: a research framework with lessons from the Rhine and Elbe river basins” (Free University of Berlin, August 2006).

<sup>70</sup> Ibid.

<sup>71</sup> See submission from Luxembourg, available at [www.ohchr.org/en/calls-for-input/2023/thematic-report-78th-session-un-general-assembly-rights-water-and-sanitation](http://www.ohchr.org/en/calls-for-input/2023/thematic-report-78th-session-un-general-assembly-rights-water-and-sanitation).

<sup>72</sup> Canada, “Canada-US Columbia River treaty”, 2022. Available at [www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-countries-regions/north-america/canada-united-states-columbia-river.html](http://www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-countries-regions/north-america/canada-united-states-columbia-river.html).

<sup>73</sup> Sabine Schulze, “Public participation in the governance of transboundary water resources – mechanisms provided by river basin organizations”, *L’Europe en formation*, vol. 365, No. 3 (2012).

<sup>74</sup> Philip Hirsch, “Scaling the environmental commons: broadening our frame of reference for transboundary governance in Southeast Asia”, *Asia Pacific Viewpoint*, vol. 61, No. 2 (2020).

<sup>75</sup> Ibid.

<sup>76</sup> Nancy Gitonga, “Improving sustainable management of Kenyan fisheries resources through public participation”, in *Public participation in the governance of international freshwater resources*, Carl Bruch, Libor Jansky, Mikiyasu Nakayama and Kazimierz A. Salewicz, eds. (United Nations University Press, 2005).

to foster peace and transboundary cooperation. Another example is the activities of EcoPeace Middle East, which is an organization formed by Israelis, Jordanians and Palestinians. One of its projects is carried out in the Gaza Strip, where military strategy dominates the management of water and aquatic ecosystems. After convincing Israel in 2020 to allow the entry of the necessary materials, its goal was to build wastewater treatment plants to treat the 127,300 cubic metres of wastewater that was dumped daily into the sea, polluting the coastline, including Israeli beaches. In June 2022, Gaza Strip beaches, as well as Israeli beaches, were deemed safe for bathing for the first time in decades. This proves the validity and feasibility of EcoPeace's arguments, in which they defend a broader concept of human security, instead of the current concept of military security that perpetuates the conflict.<sup>77</sup>

## B. National implementation of the rights to water and sanitation

68. Recognizing the human rights to water and sanitation at the national level can be an entry point for incorporating them into transboundary cooperation through basin-specific agreements. However, transboundary water agreements can also codify provisions linked to human rights that are later adapted into national laws.

69. A number of countries have explicitly recognized the right to water and/or sanitation in their constitutions. While codification in constitutions does not guarantee implementation, it provides a legal foundation and a signal of political will that should be transformed into legislation,<sup>78</sup> although most constitutions have not included the human right to sanitation.<sup>79</sup> Many more have established State obligations to ensure safe drinking water and sanitation in their legal frameworks.<sup>80</sup>

70. Recognition of the rights to water and sanitation in laws often strengthens their implementation and application in judicial processes.<sup>81</sup> Many of the laws enacted establish obligations and entitlements regarding access to sources and infrastructure based on non-discrimination, effective access to vital minimums, priorities of use, restrictions on non-domestic uses,<sup>82</sup> obligations regarding water quality, water affordability and access to information, and defined remedies.<sup>83</sup> South Africa, in particular, has recognized rights in national law with its National Water Act, Water Services Act, Free Basic Water Policy and Regulations relating to compulsory national standards and measures to conserve water, which cover all the above issues.<sup>84</sup>

71. Finally, court rulings inform the interpretation and enforcement of the rights to water and sanitation.<sup>85</sup> For instance, in *Municipal Council, Ratlam v. Vardischand*, the Supreme Court of India required sanitation services to be upgraded despite the Municipal Council's claims of insufficient finances.<sup>86</sup> Similar rulings have been observed in Costa Rica and Pakistan, among other countries.<sup>87</sup>

<sup>77</sup> United States Institute of Peace, "Water can be a rare win-win for Israelis, Palestinians and the region", 15 December 2022.

<sup>78</sup> Centre on Housing Rights and Evictions, *Legal Resources for the Right to Water and Sanitation: International and National Standards*, 2nd ed. (Geneva, 2008).

<sup>79</sup> Ibid.

<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

<sup>83</sup> Ibid.

<sup>84</sup> Ibid.

<sup>85</sup> Kirschner, "The human right to water and sanitation".

<sup>86</sup> Ibid.

<sup>87</sup> Ibid.



## VI. Gaps in transboundary ecosystem management from a human rights perspective

72. Despite the development of international law, cooperation within specific basins and promising national practices, there are difficulties in applying a human rights-based approach to transboundary cooperation. These difficulties stem from multiple problems: insufficient attention to climate change adaptation strategies; the limitations of international law; the weakness of international institutions; the low priority accorded to human rights compliance; and the lack of will and political ability of States to counter the power exercised by large transnational corporations in cross-border agreements.

### A. Transboundary cooperation from an ecosystem-based approach to climate change

73. Climate change is undoubtedly driving the adoption of an integrated ecosystem approach at the basin level, whether national or transboundary. The melting of glacier masses in the headwaters and their impact on the river flow regime; drastic changes in rainfall patterns; growing risks of floods and droughts; progressive reduction of river flows and infiltration into aquifers; increasing erosion and desertification processes; and impacts on deltas and estuaries due to sea level rise pose specific risks in all basins that can only be addressed through basin-wide planning and management strategies.<sup>88</sup>

74. Although management of these risks is beginning to be considered in transboundary agreements, much still needs to be done to coordinate water planning in transboundary basins and to share information and prevention, warning and emergency systems in order to cope with extreme weather events.

### B. Challenges in the implementation of international law

75. Despite the progress observed so far, ensuring the effective implementation of the human rights to water and sanitation in a transboundary context continues to present challenges. The first challenge relates to the nature of the obligation and the “progressive realization” and “core obligation” debate.<sup>89</sup> In the view of the Committee on Economic, Social and Cultural Rights, core obligations relating to the human right to water require immediate implementation.<sup>90</sup> However, progressivity in implementing rights, to consider context and build political will, can be invoked, with arbitrary flexibility, as an excuse for lack of progress, especially regarding financial capacity. Moreover, given the lack of jurisprudence on many aspects of international law related to domestic and transboundary water resources, there is also a lack of clarity on how obligations can be interpreted.<sup>91</sup>

76. Challenges at the national level include insufficient human, technical and financial resources; a lack of laws, policies, strategies and budgetary prioritization to ensure the human rights to water and sanitation; corruption; water scarcity aggravated

<sup>88</sup> Special Rapporteur on the human rights to safe drinking water and sanitation, special thematic report on climate change and the human rights to water and sanitation, part 1.

<sup>89</sup> Salman M.A. Salman and Siobhán McInerney-Lankford, *The Human Right to Water: Legal and Policy Dimensions*, Law, Justice, and Development Series (Washington, World Bank, 2004); Lucia Hortelano Villanueva, “Water as a human right: challenges and limitations” (2016).

<sup>90</sup> General comment No. 15 (2005), para. 37.

<sup>91</sup> Kinna, “Non-discrimination and liability for transboundary acid mine drainage pollution of South Africa’s rivers: could the UN Watercourses Convention open Pandora’s mine?”.

by climate change and steady population growth; and the marginalization of rural municipalities, community institutions and Indigenous Peoples.<sup>92</sup>

77. Ambiguity in the law limits its effective application. A clear example is the “do no harm” principle, as the Convention on the Law of the Non-navigational Uses of International Watercourses does not clearly define the concept of significant harm. This makes it difficult to prove on a case-by-case basis that the harm is significant, which discourages attempts to apply the principle.<sup>93</sup>

78. Lastly, enforcement mechanisms under international human rights law and international water law are often not well known by individuals and local communities, which prevents compliance with international law obligations in many circumstances.<sup>94</sup>

### C. Power asymmetries

79. Agreements have sometimes been reached under the pressure of a significant asymmetry of power, establishing conditions of inequality that, far from resolving conflicts, prolong them by making it difficult for the weakest to fulfil their rights. One example is the Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip, whereby the power asymmetry arising from the military force of Israel prevented the application of international law principles, resulting in unequal access to water in the occupied Palestinian territories. Under the Agreement, 80 per cent of the water is allocated for Israeli uses, while only 20 per cent is designated for Palestinians. This not only restricts the realization of human rights for Palestinians but also perpetuates the chronic nature of the conflict.<sup>95</sup>

### D. Failures of international legislation and abuses in transboundary basin management

80. Human rights can also be manipulated to justify tensions and conflicts. For instance, the Government of Ethiopia invokes the right to development of the Ethiopian people to justify the Grand Ethiopian Renaissance Dam in the Nile basin, drawing on article 22 of the African Charter on Human and Peoples’ Rights.<sup>96</sup> At the same time, Egypt has rejected the project, arguing that it could affect its population’s human right to drinking water and sanitation.<sup>97</sup> The Special Rapporteur understands that where there is competition for water to satisfy human rights, in this case among Egypt, Ethiopia and the Sudan, there are multiple strategies for reconciling them, as

<sup>92</sup> Special Rapporteur on the human rights to safe drinking water and sanitation, special thematic report on climate change and the human rights to water and sanitation, part 1; Benjamin Mason Meier and others, “Implementing an evolving human right through water and sanitation policy” (2013) 15 *Water Policy*, vol. 15, No. 1 (2013); and Ved P. Nanda, “The human right to water: challenges of implementation”, *The University of the Pacific Law Review*, vol. 50, No. 1 (2018).

<sup>93</sup> Kinna, “Non-discrimination and liability for transboundary acid mine drainage pollution of South Africa’s rivers: could the UN Watercourses Convention open Pandora’s mine?”.

<sup>94</sup> Sofia López-Cubillos and others, “The landmark Escazú Agreement: an opportunity to integrate democracy, human rights, and transboundary conservation”, *Conservation Letters*, vol. 15, No. 1 (2021).

<sup>95</sup> Hussam Hussein, Filippo Menga and Francesca Greco, “Monitoring transboundary water cooperation in SDG 6.5.2: how a critical hydrogeopolitics approach can spot inequitable outcomes”, *Sustainability*, vol. 10, No. 10 (2018).

<sup>96</sup> Takele Soboka Bulto, “The environment and human rights”, in *The SAGE Handbook of Human Rights*, Mark Gibney and Anja Mihr, eds. (SAGE, 2014).

<sup>97</sup> Ibid.

demonstrated by the transboundary agreements and institutions of the Senegal River, the Niger and others on the African and Asian continents.

81. Israel has maintained a blockade of Gaza since 2005, as if it were an immense concentration camp with 2 million people, 90 per cent of whom do not have access to drinking water, according to estimates by the United Nations Children’s Fund (see [A/HRC/48/43](#), para. 47). Arguing that it is protecting the right to life of its population, Israel blocks the entry of 70 per cent of the materials necessary for the construction, operation and maintenance of drinking water supply facilities and sewage treatment plants, which, to make matters worse, are often destroyed when hostilities break out. Those actions, among others, prevent the realization of the rights to water and sanitation, on the grounds that such materials can be used for military purposes.

82. In drought cycles, the risks of non-compliance with the human rights to drinking water and sanitation in transboundary basins grow when upstream States monopolize the limited flows available. In such circumstances, States often assert the primacy of rights for diverse uses of their population by invoking human rights, even if those uses do not always correspond to human rights, including, for example, large areas of irrigated land and other economic activities not linked to basic needs.

83. In the Euphrates and Tigris basins, serious problems in Iraq and the Syrian Arab Republic have arisen from climate change, wars and the development of the Southeastern Anatolia Project (GAP) in Türkiye, which entails the construction of 22 large dams to irrigate 1.7 million hectares and double electricity production in the country. The average flows of the Tigris have decreased by 70 per cent, and the flows of the Euphrates do not reach 50 per cent of the levels agreed upon by the Syrian Arab Republic and Türkiye in 1987.<sup>98</sup> The war in Iraq and the current war in the Syrian Arab Republic, together with a lack of water and the salinization of scarce water flows, especially in the densely populated joint mouth of the two rivers, mean a massive breakdown of human rights to safe drinking water and sanitation, severe public health problems, including worrying epidemic outbreaks, enormous migration processes and regional instability.<sup>99</sup>

## E. Lack of public participation

84. Only States may be part of international agreements on transboundary basin management. However, in the view of the Special Rapporteur, to the extent that human rights are at stake, States must ensure public participation when negotiating and developing such agreements. Without public participation, human rights are often not given priority, as the needs of the most impoverished people are usually not prioritized, while community and customary rights are not adequately recognized, or the water rights of Indigenous Peoples.<sup>100</sup>

85. The Special Rapporteur believes that public participation by all the populations concerned in the basin would strengthen capacities for dialogue and facilitate the adoption of a human rights-based approach. Rivers have historically twinned riparian

<sup>98</sup> Ali Al-Bayaa and Mostafa Mashhad, “Water scarcity and environmental peacebuilding: a lens on southern Iraq”, E-International Relations, 18 May 2023.

<sup>99</sup> See submission from PAX, available at [www.ohchr.org/en/calls-for-input/2023/thematic-report-78th-session-un-general-assembly-rights-water-and-sanitation](http://www.ohchr.org/en/calls-for-input/2023/thematic-report-78th-session-un-general-assembly-rights-water-and-sanitation).

<sup>100</sup> Rights and Resources Initiative & Environmental Law Institute, “Whose Water? A comparative analysis of national laws and regulations recognizing Indigenous Peoples’, Afro-descendants’, and local communities’ water tenure”, 20 August 2020. Available at <https://rightsandresources.org/wp-content/uploads/2020/02/WhoseWater.pdf>.

peoples across borders. Public participation is sometimes even vetoed under alleged arguments of national security.<sup>101</sup>

86. Promoting and embracing a human rights-based approach and ensuring cross-border public participation are key issues that go hand in hand with ensuring consideration of the needs and rights of impoverished and marginalized communities. Furthermore, in application of Security Council resolution 1325 (2000) on women and peace and security,<sup>102</sup> it is essential to open up spaces for the participation of women, who are the most committed to guaranteeing water and sanitation in their communities.

## F. Limited practices at all levels

87. At all levels, little attention is paid to the issue, and few international obligations are established regarding the human right to sanitation, even in relation to the principle of avoiding significant harm caused by a lack of sanitation.

88. The Special Rapporteur is particularly concerned by the increasing levels of toxic contamination affecting populations in both national and transboundary basins. It is urgent to give consideration to the problem in cross-border agreements and to debate the international criminal classification of such contamination, which irreversibly and cumulatively poisons millions of people globally, mainly through water.

## VII. Conclusions and recommendations

89. **The growing need, exacerbated by climate change, to promote the sustainable management of aquatic ecosystems, whether transboundary or not, requires the development of new ecosystem approaches to planning and management.<sup>103</sup> Given the wide distribution of transboundary river basins and aquifers, the lack of adequate transboundary water management in the current climate change perspective may lead to water insecurity problems that put access to water and food and health at risk for hundreds of millions of people, generating massive migrations and the destabilization of entire regions.**

90. **While cooperation in transboundary waters can, fortunately, reverse those trends and open up opportunities for progress, it is necessary to recognize and address gaps in the implementation of this necessary collaboration. Such gaps include the non-binding nature of international law, its limited application, the ambiguity of many agreements and a lack of political will. In addition, asymmetries of benefits, costs and values, together with asymmetries of power among States, often hinder the necessary collaboration based on equality, reciprocity and sustainability. Lastly, as is the case in waters nationwide, powerful private interests can predominate in transboundary basin management, in alliance with State powers, marginalizing groups in situations of vulnerability in the basin. In such cases, far from resolving conflicts, cross-border agreements can aggravate them.**

91. **Addressing these problems requires the promotion of cross-border public participation, with particular attention to the equal involvement of women, who**

<sup>101</sup> Inputs to the present report.

<sup>102</sup> Since 2000, several subsequent resolutions on women and peace and security have been adopted: 1820 (2008), 1888 (2009), 1889 (2009), 1960 (2010), 2106 (2013), 2122 (2013), 2242 (2015) and 2467 (2019).

<sup>103</sup> *Handbook on Water Allocation in a Transboundary Context.*

are the most committed to guaranteeing drinking water in their communities, and in compliance with Security Council resolution 1325 (2000) on preventing and managing international conflicts, in this case, over water.

92. For the benefit of all, an ecosystem approach to managing all river basins is needed to ensure the sustainability of ecosystems, address climate change risks and fulfil human rights for all in the basins. It is and will be essential for this to involve the efforts of States, but also those of international organizations, donors and especially the societies of the countries involved, with particular attention to communities and sectors in situations of greater vulnerability.

93. Beyond the problems of equity in the quantitative distribution of water, the quality of water is and will be increasingly important. Hence, besides being part of the human right to sanitation, wastewater treatment is and will be increasingly crucial in cross-border agreements. It becomes vital in situations where there is toxic contamination that poisons people and violates the human right to drinking water in the country itself or in neighbouring countries.

94. Lastly, climate change imposes the need to collaborate at the basin level in implementing adaptation and mitigation strategies.<sup>104</sup> In particular, designing and developing risk-based strategies for adaptation to extreme climate events such as droughts and floods minimizes the vulnerability of populations across borders and protects their human rights to safe drinking water and sanitation.<sup>105</sup>

95. Based on experience in transboundary conflicts and cooperation agreements, lessons learned and existing gaps, the Special Rapporteur makes the following recommendations to promote a human rights-based approach to the management of transboundary aquatic ecosystems.

96. States should:

(a) Ensure implementation of and compliance with the United Nations water conventions to achieve equitable and sustainable use of water resources and aquatic ecosystems, and cooperate on the basis of equality and reciprocity;

(b) Ensure a human rights-based approach in transboundary cooperation by applying the principles of non-discrimination, participation, transparency and access to information in all decision-making affecting the human rights to water and sanitation of people living in transboundary aquatic ecosystems;

(c) Guarantee the participation of rights holders in the formulation, implementation and monitoring of activities in the basins;

(d) Take specific measures to ensure the meaningful participation of communities and sectors in poverty and/or situations of vulnerability;

(e) Ensure women's equal and fair participation, valuing their knowledge and commitment in supporting water and sanitation, in compliance with Security Council resolutions on women's participation in conflict prevention and resolution;

(f) Create transboundary agreements and institutions to develop management plans at the basin or aquifer level that make it possible to guarantee, on the one hand, the human rights that depend on water management and, on the other hand, the sustainability of ecosystems and the multiple services

<sup>104</sup> United Nations Educational, Scientific and Cultural Organization, *The United Nations World Water Development Report 2023: Partnerships and Cooperation for Water* (Paris, 2023), p. 108.

<sup>105</sup> Special Rapporteur on the human rights to safe drinking water and sanitation, special thematic report on climate change and the human rights to water and sanitation, part 1.

and benefits that they provide to riparian communities and populations, on both sides of the borders;

(g) Build cross-border accountability and grievance mechanisms for rights holders living in the basin to claim their rights in any of the basin countries applying the principle of non-discrimination;

(h) Agree on measures and criteria to guarantee human rights, such as consensus-based decision-making on the large infrastructures to be built, early warning systems, strategies against floods and droughts, or the protection of fishing;

(i) Consistently develop human rights legislation in water management at the national level and in transboundary ecosystems to ensure that these rights are effectively fulfilled;

(j) Codify at the basin level the priority use of water to satisfy the human rights linked to water management and ensure the good state of ecosystems;

(k) Promote a comprehensive approach that integrates the human right to sanitation at the basin level, considering the substantial implications of non-compliance, both domestic and cross-border. Furthermore, it is crucial to prioritize effective measures to prevent the toxic contamination of water resources;

(l) Ensure that any perceived competition regarding water utilization for different human rights is resolved through dialogue between the States parties.

97. Financial institutions, such as the World Bank, the International Monetary Fund and multilateral development banks, and climate and environmental funds, such as the Global Environment Facility, the Adaptation Fund and the Green Climate Fund, should:

(a) Promote joint transboundary strategies for adaptation to climate change, sharing hydrological information and use of infrastructure to minimize water-related risks;

(b) Increase the resources available to boost transboundary water cooperation and ensure equitable and sustainable management of transboundary water resources, supporting transboundary institutions and transboundary climate change adaptation plans. They should also promote the realization of human rights, including the participation of rights holders and effective accountability.

98. States, international organizations and academia should:

(a) Clarify, on the basis of international water law, key concepts such as “significant harm” due to the impairment of human rights or impairment of the principle of non-discrimination in a neighbouring country, in order to develop binding obligations in cross-border agreements;

(b) Coordinate civil society organizations in transboundary basins to ensure coordinated public participation and accountability and monitoring regarding transboundary agreements in the countries concerned.

99. Lastly, all actors should bring attention to the right to sanitation in transboundary agreements and cooperation. While the right to sanitation has been addressed in some international laws, in basin cooperation and in national legislation, it continues to lag behind the right to water. State, international, private and civil society actors must work together to implement policies and projects relating to the right to sanitation to ensure that it can be realized at the transboundary and national levels.