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# Human rights law in the development of hydropower projects in transboundary context

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Human rights obligations are owed by states to the individuals in their territory and under their jurisdiction and may also arise in extraterritorial contexts. This document provides an overview of how various human rights and in particular the human right to safe drinking water and indigenous peoples' rights are related to hydropower development. This analysis, will present available international law tools and mechanisms including river basin organizations and judicial bodies which may conciliate tensions between and within states when the development of hydropower project risk to affect the quantity or the quality of water provided to local and vulnerable communities.

## KEYWORDS

human rights, transboundary waters, hydropower dams, international law, indigenous peoples

## 1 Introduction

The application of human rights law in the development of hydropower projects in a transboundary context is important since rivers, lakes and aquifers often supply water for drinking and subsistence agriculture to communities living across States. The unilateral development of hydropower projects may have a direct impact on the quantity and quality of water available to the individuals and local communities of other riparian States. These projects often entail displacement which affects in particular indigenous peoples who might be forced to leave their ancestral land, resources, livelihoods and culture ([World Commission on Dams, 2000](#)). The question is therefore whether a state is bound not only by the obligation to ensure access to safe drinking water to individuals and communities living in its territory and under its jurisdiction, but also to consider human rights in other riparian States ([Erdem Türkelli et al., 2022](#)).

In this piece, we highlight some of the key features of the human right to safe drinking water and indigenous peoples' rights in the development of hydropower projects in a transboundary context and we identify some of the existing gray areas to ensure their protection.

## 2 Linkages between dam development and human rights

Throughout history, dams have facilitated different activities including hydropower, irrigation, flood control, water storage and navigation contributing to national and regional

economic development. The majority of large dams are being built for hydropower to respond to the increasing global demand for renewable energy. Hydropower which accounts for 16% of the global share of electricity production worldwide represents an opportunity to provide energy to regions such as Sub-Saharan Africa where at least 759 million people still lack of access to electricity (IEA et al., 2021; IEA, 2022).

At the moment, while North America and Europe start to decommission large dams and transitioning into solar PV and wind, emerging economies experience a hydropower boom (Zarfl et al., 2015). Since 2020, China, Turkey, India and Angola lead the development of large hydropower projects (IHA, 2021). These countries are also regional water towers for nature and people and thus it is essential that potential environmental and social impacts from large hydropower development are considered. Major rivers including the Mekong, the Amazon and the Congo are being dammed to increase hydropower capacity putting at risk vulnerable freshwater ecosystems, aquatic biodiversity as well as local communities and indigenous peoples (Moran et al., 2018). In the case of human rights, States need to prevent harmful effects to the availability and quality of water as well as to protect vulnerable groups such as indigenous peoples from forced displacement (Schmeier and Gupta, 2020).

When authorizing hydropower projects in transboundary waters, national authorities need to consider not transboundary freshwater agreements but also other relevant treaties included in human rights conventions. As indicated by Article 31.3 (c) of the 1969 Vienna Convention on the Law of Treaties (United Nations, 1969), a treaty has to be interpreted taking into account “any relevant rules of international law applicable in the relations between the parties.” These also include rules enshrined in conventions such as the *International Covenant on Civil and Political Rights (ICCPR)* (1966) and the *International Covenant on Economic, Social and Cultural Rights (ICESCR)* (1966) which affirm the human rights to life, health, food and drinking safe water and sanitation. When specific agreements on transboundary freshwater do not exist, a State planning the development of an hydropower project, needs to engage in the negotiation of a treaty with the neighboring country which risks to be affected. Moreover, in some cases, private companies can be involved in the funding of a hydropower plant (Erdem Türkelli et al., 2022). In this context, it is necessary to question the extent of the duty of States to regulate the activity of the private actor in order to prevent potential transboundary harm. On this basis, one must mention the UN Guiding Principles on Business and Human Rights adopted by the Human Rights Council in 2011, affirming the responsibility of States to take appropriate steps to prevent, investigate, punish and redress human rights abuses by private actors<sup>1</sup> (Rieu-Clarke, 2020).

<sup>1</sup> For instance, OECD and the International Hydropower Association, as well as recommendations from global dialogue processes such as the World Commission on Dams.

## 2.1 The human right to safe drinking water and the development of hydropower plants

The human right to safe drinking water emerged in the international agenda in the 1970s via various conferences, social movements, and non-governmental organizations (Langford and Russell, 2017; Fantini, 2020; IUCN and Geneva Water Hub, 2021a,b). The 1977 Conference on Water in Mar del Plata was devoted to discussing water issues and under Resolution II declared for the first time that “all peoples, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and of a quality equal to their basic needs” (United Nations, 1977, p. 66–67). Though reference was to “right” instead of “the human right to water,” it could be seen as the genesis of the human right to safe drinking water. Under the auspices of the UN, the evolution of the human rights to safe drinking water was later accelerated. In 1997, the Sub-Commission on the Promotion and Protection of Human Rights drafted a working paper on promoting the realization of the right of access of everyone to drinking water and sanitation services (Misiedjan and Obani, 2021). This formed the basis for linking the human right to water to the UN bodies and in 2002, the UN Committee on Economic, Social and Cultural Rights (CESCR), through its General Comment No. 15 clearly formulated it.

In 2010, the UN General Assembly (by a vote of 122 in favor to none against and with 41 abstentions), and the Human Rights Council adopted two resolutions signaling the recognition of the human rights to water and sanitation in international law. In 2015, the UN General Assembly adopted the 2030 Agenda for Sustainable Development and under its Goal 6, it indicated the need to achieve “universal and equitable access to safe and affordable drinking water for all.” Since 2010 (and until 2021), the UN General Assembly and the Human Rights Council adopted 14 resolutions without the need for a formal procedure of voting, this shows the increasing support of States to the human right to safe drinking water and the evolution in their position from abstention in 2010 to the support of this right.

An element which has contributed to the legitimacy of the role of water in human rights law was the decision of the Human Rights Council in 2008 to appoint an Independent Expert on the issue of human rights relating to access to drinking water and sanitation who became in 2011 the Special Rapporteur on the right to safe drinking water and sanitation (Human Rights Council, 2008). As evidenced in the works of the former and current Special Rapporteur on the human rights to safe drinking water and sanitation, the effective realization of the human right to water also corresponds with the need to address different challenges such as the need to ensure the implementation of this right for indigenous peoples which are affected by large dams development. The current mandate holder, Pedro Arrojo Agudo, noted that indigenous peoples may exercise their inherent rights only if they own, conserve and manage their territories, lands and resources (United Nations, 2022). The Special Rapporteur noted the large impacts of large dams on the living conditions of indigenous peoples, especially their right to water. Aligned to this statement, the Special Rapporteur urged States to ensure implementation of and compliance with the UN Watercourses Convention and the

UNECE Water Convention, as well as to ensure a human-rights based approach in transboundary waters.<sup>2</sup>

The human right to water is implicitly recognized in the ICESCR under the human right to health and the human right to decent living conditions (Arts. 11 and 12 of ICESCR). Moreover, this right is also included in agreements on transboundary water resources. This is the case of the Senegal, Niger and Lake Chad Basin Charters as well as the Dniester Agreement. These treaties often consider this right as a criterion for an equitable and reasonable utilization of transboundary water resources. The implementation of this right may also be facilitated by the river basin organizations established by these freshwater agreements.

Thus, these agreements become a concrete tool for ensuring the effectiveness of the human right to safe drinking water both at the domestic and transboundary levels. In this sense, the implementation of this right should be ensured by both the State developing the hydropower project and the State which might be potentially negatively affected by this project. In particular as, the human right to safe drinking water is viewed often by riparian states as an area of broad cooperation and not as a specific obligation that might arise in potential tensions between the various users of transboundary water resources. Best practices are seen with basin organizations, including the *Organization pour la mise en valeur du fleuve Sénégal*, the Niger Basin Authority, the Lake Chad Basin Commission and the Dniester Commission that contribute to monitor the implementation of this right, providing its institutional protection. These organizations also play a role when developing hydropower installations, for example, the Charter on the Senegal River provides that the construction and functioning of installations, such as hydropower plans, are submitted to the authorization of the High-Commissioner of the Senegal River Development Organization (OMVS, art. 10).

In addition to these aspects which are specific to the Water Charters, some authors have argued that the lack of a jurisdiction clause in the ICESCR implies that States parties to this Covenant have a responsibility not to infringe the human rights, contained in this instrument, in other countries (Russell, 2019). Article 2 of the ICESCR Covenant seems to confirm this interpretation given that all State parties need “to take steps, individually and through international assistance and cooperation, especially economic and technical” for the full realization of the rights affirmed in the Covenant. Hence, the recognition of the human right to safe drinking water does trigger this aspect of international cooperation and includes a duty for a State to refrain from actions that would infringe human rights, included in the ICESCR, in another country (Russell, 2019). In this context, some authors conclude that that “laws, policies and standards concerning human rights and the environment may place a planning State under the obligation to consult potentially affected communities both within its own territory and that of other riparian States” (Rieu-Clarke et al., 2023).

## 2.2 Indigenous people’s rights and the development of hydropower plants

Indigenous peoples are custodians of ancestral knowledge and practices that make their relation with nature unique. Despite their important role in the management and protection of ecosystems, they are not yet fully involved in decision-making processes and consultations related to the development of hydropower plan. States need to ensure that the human rights of these vulnerable groups are taken into consideration during the processes of planning and construction of hydropower dams as these might affect their access to ancestral land and natural resources. One of the key instruments to protect indigenous rights is the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (United Nations, 2008) affirming that indigenous peoples have the right to the full enjoyment, as a collective or as individuals, of all human rights and fundamental freedoms as recognized in the UN Charter and international human rights law.<sup>3</sup>

The UNDRIP also affirms that governments should recognize and respect the standards of free, prior and informed consent (FPIC), as a minimum standard reflected in this document. Moreover, the recognition of their right to safe drinking water should go beyond quantities to be used for drinkable purposes and basic needs. The right to safe drinking water needs to cover the amount of water that is necessary to promote economic development of communities and to ensure the welfare of their environment (Tignino et al., 2017). These elements should also be considered when a dam developed by a country may affect the right to safe drinking water—including its availability and quality—of indigenous peoples in another State.

According to the Principle 22 of the 1992 Rio Declaration on Environment and Development (United Nations, 1992), indigenous peoples have a vital role in environmental management and development because of their ancestral knowledge, traditions, and practices. In this sense, States should recognize and duly support their identity, culture, and interests and enable their effective participation in the achievement of sustainable development. The International Labor Organization’s Convention 169 on Indigenous and Tribal Peoples (Convention No. 169) elaborates further on this right and recognizes two main avenues to concretize the right to information, consultation and participation. First, indigenous peoples must be consulted, through appropriate procedures and in particular through their representative institutions. Second, States must establish mechanisms by which these peoples can freely participate, to at least the same extent as other sectors of the population. Indigenous peoples must participate at all levels of decision-making in elective institutions and administrative and other bodies responsible for policies and programmes which concern them.

Further, the ILO (1989) declares that governments have the duty to respect the land and territories that indigenous peoples occupy for their special importance for cultural and spiritual values. The Convention mentions that special measures have to be adopted as appropriate for safeguarding the persons, institutions,

<sup>2</sup> UN Human Rights Council. 2023 Report of the Special Rapporteur on the human right to safe drinking water and sanitation, Water as an argument for peace, twinning and cooperation, Pedro Arrojo Agudo. UN Doc. A/78/253, 28 July, 2023.

<sup>3</sup> 2007 United Nations Declaration on the Rights of Indigenous Peoples Art. 1 and Art. 3.

property, labor, cultures, and environment of the indigenous peoples concerned.<sup>4</sup>

### 2.3 Implementation of the human right to safe drinking water and indigenous peoples rights at the international and national levels

At the international level, it has been recognized that the environment in which indigenous people live provides the water resources indispensable for an adequate standard of living and a dignified life (Tignino, 2015). In this context it is worth referencing the *Mayagna Awas Tigni Community v. Nicaragua* case. In its judgement, the Inter-American Court of Human Rights affirmed that “indigenous groups, by the fact of their very existence, have the right to live freely in their own territory; the close ties of indigenous people with the land must be recognized and understood as the fundamental basis of their cultures, their spiritual life, their integrity, and their economic survival.”<sup>5</sup> The African Commission on Human and People’s Rights has also contributed to the acknowledgment of a right to the uses of natural resources for indigenous peoples. In the *Center for Minority Rights Development v. Kenya* case, it linked the right of access to sources of water with respect for freedom of religion and the right to development. In addition, access to information and public participation are means for exercising the right to uses natural resources. In the case of indigenous peoples, the access to water resources and involvement in water management has been taken very seriously, with the result that these groups have often been endowed with specific rights in this respect.<sup>6</sup>

At the national level, Ecuador contemplates constitutional provisions emphasizing the importance of the human right to safe drinking water, the rights of indigenous peoples and the rights of nature.<sup>7</sup> On this basis, in 2020, the Constitutional Court of Ecuador adopted a sentence that declared the violation of the human right to a healthy environment, the human right to water, as well as the indigenous peoples rights of the Kichwa and the rights of the Piatúa River for not having ensured an adequate process of participation for the Kichwa People during the planning of a hydropower project in such river.<sup>8</sup> In this sense, the Court ordered to suspend the hydropower project and canceled the authorization to use the waters from the Piatúa, as well the environmental license provided by the Ecuadorian government.<sup>9</sup> This case represents

jurisprudential precedent on issues relating to the human right to water, indigenous peoples rights and the rights of nature in the context of hydropower project development.

## 3 Discussion

Despite the progress observed so far, there remain considerable challenges to ensure the effective implementation of the human right to safe drinking water and indigenous rights in the context of the development of hydropower. The challenges could be seen at two levels—domestic and international. The first point to be mentioned relates to the nature of the obligations linked to the human right to safe drinking water. In the view of the ESCR Committee, only core obligations related to the right to water require immediate implementation.<sup>10</sup> Another issue relates to the vertical nature of human rights obligations (human rights protect individuals against their government, not against actions of governments of other countries *per se*) (Russell and McCaffrey, 2017). This has significant implications on the potential obligations of States in relation to the rights of individuals living in other States where conduct attributable to it affects the human right to safe drinking water of individuals. Under General Comment No. 15, it is indicated that “[a]ny activities undertaken within the State party’s jurisdiction should not deprive another country of the ability to realize the right to water for persons in its jurisdiction” and that they “should refrain at all times from imposing embargoes or similar measures, that prevent the supply of water ... for securing the right to water.”<sup>11</sup> Although the General Comment is not a binding document *per se*, it opens an avenue to the extraterritorial protection of the human right to safe drinking water. This human right could be potentially invoked by national and international courts to ensure that States perform due diligence within their territories and prevent that significant harm is not caused to riparian States, including on the human rights of individuals and communities (Rieu-Clarke, 2015).

International water law instruments in particular the Convention on the Law of the Non-Navigational Uses of International Watercourses (Watercourses Convention) and the Convention on the Protection and Uses of Transboundary Watercourses and International Lakes (Water Convention) should also be implemented by Parties in a way that ensure the adequate implementation of human rights and indigenous peoples rights. The protection of these rights needs to be considered by States especially when looking at the factors relevant to determine the equitable and reasonable utilization of shared waters, as well as when valuing the potential social and environmental transboundary harm that could affect riparian countries.

The protection of the human right to safe drinking water and indigenous rights in the context of transboundary waters and in particular during the processes of planning and developing large water infrastructure such as hydropower dams need to be urgently promoted. In the face of a hydropower boom in emerging economies, States need to revise and reform where needed

4 1989 ILO Convention on Indigenous and Tribal Peoples Convention, Art. 13 and Art. 14.

5 Inter-American Court of Human Rights, *The Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, Judgement of 31 August 2001, para.149.

6 *Center for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v. Kenya*, 4 February 2010.

7 2008 Constitution of Ecuador, Articles 12, 14 and 71.

8 Court of Pastaza, E. (2020). *Piatúa River Case, Protection Proceeding, Process 16281-2019-00422*. Available online at: [https://portal.corteconstitucional.gob.ec/BoletinAgosto2020/1754-19-JP\\_AUTO\\_SELECCION.pdf](https://portal.corteconstitucional.gob.ec/BoletinAgosto2020/1754-19-JP_AUTO_SELECCION.pdf)

9 *Idem*.

10 General Comment No. 15 para 37.

11 General Comment No. 15 paras 31 & 32.

laws that recognize human rights and implement mechanisms to protect them including through social and environmental impact assessments, as well as participatory consultation processes. Emerging economies need to balance the potential benefits linked to the satisfaction of the human right to safe drinking water of some segments of the population with the rights of indigenous peoples. It is necessary to increase legitimacy in decision-making processes at the domestic and transboundary levels when developing large hydropower dams.

Finally, the human right to safe drinking water and indigenous peoples rights need to be expressly contemplated in transboundary agreements as well as in national legislation of watercourse States, as a means to guide courts in the protection of these fundamental rights.

## Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding authors.

## Author contributions

MT: Writing—original draft, Writing—review & editing. DJ: Writing—original draft, Writing—review & editing.

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