



DAMS

Water flows regulation in a fragmented world

Output 1: Review of legal tools applicable to planning, developing and monitoring of dams



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Review of legal tools applicable to planning, developing and monitoring of dams

Planning, development and operation of dams are currently at the center of a number of disputes between riparian countries. The Grand Ethiopian Renaissance Dam (GERD) or the Ilisu dam are among the most emblematic cases.¹ In many countries, domestic frameworks relating to dams may be weak or inadequate and cannot sufficiently protect the rights of affected communities.

Efforts from Non-Governmental Organizations (NGOs) such as International Rivers have contributed to develop tools to support a rights-based approach for dams planning, development and operation.² Few authors address the issue of customary rules and global and regional treaties applicable to dams³ and most of the time have focused only on specific bilateral or multilateral treaties.⁴ The “Dams: water flows regulation in a fragmented world” initiative led by IUCN and the Geneva Water Hub aims at filling the gap through a review and analysis of the treaty practice relevant to dams.

Because the law applicable to dams is scattered in various areas of international law including both treaties and soft law instruments, the joint initiative has produced this reference document to guide practitioners and policy-makers. This document serves as a tool for national and international actors involved in the planning and development of dams in transboundary watercourses.

The present document is the first output of this joint initiative to elaborate an assessment of the legal tools applicable to dams planning, developing and monitoring. This assessment includes a compendium of references grouping and analyzing the main frameworks and principles to be considered when addressing the challenges of dams in general and large dams in particular (see annex). This first output should be viewed as a “living document” which will be further developed and completed with additional practice.

The sections below are grouped as follows:

¹ An extensive literature exists on the issues at stake around these two dams. See for example: Zeray Yihdego *The Fairness ‘Dilemma’ in Sharing the Nile Waters. What Lessons from the Grand Ethiopian Renaissance Dam for International Law?*, Brill Research Perspectives in International Water Law, vol.2, issue 2, 2017; Zeray Yihdego, Alistair Rieu-Clarke, Ana Cascão (eds.), *The Grand Ethiopian Renaissance Dam: Implications for Transboundary Water Cooperation*, Routledge, 2018; Raquella Moea Thaman, *The Ilisu Dam and Its Impacts on the Mesopotamian Marshes of Iraq: Implications for the Future Directions of International Water Law*, Brill Research Perspectives in International Water Law, vol.5, issue 4, 2021.

² International rivers, *Dams standards: a rights-based approach. A guide book for civil society*, 2014 https://www.internationalrivers.org/wp-content/uploads/sites/86/2020/05/intlivers_dam_standards_final.pdf

³ Salman M.A. Salman, “Dams, International Rivers, and Riparian States: An Analysis of the Recommendations of the World Commission on Dams” *American University International Law Review*, vol. 6, issue 6, 2001, <https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1255&context=auilr>; Karlie Shea Clemons, “Hydroelectric Dams: Transboundary Environmental Effects and International Law”, *Florida State University Law Review*, vol. 36, issue 3, 2009, <https://ir.law.fsu.edu/cgi/viewcontent.cgi?article=1120&context=lr>

⁴ See for example, Matthew Happold « Dams and international law » in Laurence Boisson de Chazournes and Salman M. A. Salman (eds), *Water resources and international law*, The Hague Academy of International Law, Martinus Nijhoff, 2005, pp. 577-604; Mohsen Nagheeby, Mehdi Piri D. and Michael Faure, «The Legitimacy of Dam Development in International Watercourses: A Case Study of the Harirud River Basin», *Transnational Environmental Law*, vol. 8, issue 2, 2019.

- 1) A presentation of the League of Nations Convention relating to the development of hydraulic power affecting more than one State of 1923 (1923 Geneva Convention) which is the only treaty dealing specifically with dams;
- 2) Customary principles based on soft-law instrument, treaties and case-law relevant to the planning, development and monitoring of dams;
- 3) Multilateral environmental agreements (MEAs) which address the challenges raised by the development of dams, including climate change, the protection of biodiversity and wetlands of international importance;
- 4) Global water conventions including the UN Watercourses Convention and the UNECE Water Convention
- 5) Human rights instruments which confer protection of the rights of individuals and local communities affected by the planning and development of dams by States;
- 6) International environmental and social standards applicable to dams' projects developed by private actors.

1. 1923 Geneva Convention

Adopted under the aegis of the League of Nations and ratified by only 16 states, this is the only global treaty specifically covering the construction and operation of dams.⁵

Although the Convention has a limited number of ratifications, it includes a number of fundamental principles that have been subsequently developed in instruments of international water law and international environmental law including:

- (i) the right of every country to exploit hydraulic power within the limits of international law, in particular taking into account the duty of not causing significant damage to another riparian;
- (ii) the duty to enter into negotiation in case of disagreement between countries;
- (iii) the right to resort to an international investigation to find a common solution.

- (i) The right to develop hydraulic power

It is a well-established rule of international law that states have a sovereign right to utilize or exploit their natural resources in a manner that would not cause significant transboundary harm. For instance, Article 1 of the Convention determines that each state has the right to develop hydraulic power 'within the limits of international law.' This provision is of particular relevance and it can be read in the light of principles of current international environmental law. One of these principles is the right of each state to exploit their own national resources in a way 'to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of

⁵ Text in: League of Nations, Treaty Series, Vol. XXXVI, p. 77. The Convention was adopted by the Second Conference on Communication and Transit by 24 votes to 3, with 6 abstentions (see League of Nations, Second General Conference on Communications and Transit, Records and Texts, 1921 (C.30.M.16.1924.VIII), Annex I, p. 76). The following are parties to the Convention: Austria, Belgium, the British Empire with New Zealand, Bulgaria, Chile, Denmark, The Free City of Danzig, France, Greece, Hungary, Italy, Lithuania, Poland, Kingdom of the Serbs, Croats and Slovenes, Siam and Uruguay.

national jurisdiction.⁶ Furthermore, the International Court of Justice (ICJ) in the *Gabcikovo-Nagymaros Project case* confirmed the sovereign right of a state to build a dam within its territory on a shared watercourse while at the same time indicating limitations imposed by international law.⁷

(ii) The duty to settle water disputes peacefully

International law requires that disputes arising from the utilization of international watercourses shall be resolved peacefully. The Convention enunciates that whenever a state wants to develop hydraulic power that might affect other riparian states, all the states concerned shall enter into negotiations. In particular, under Articles 3 and 4, it emphasizes that when a dam would involve 'alterations on the territory' or might cause 'serious prejudice' to another riparian, the states 'shall enter into negotiations with a view to the conclusion of agreements which will allow such operations to be executed.' This requirement is in line with current international law, particularly Article 33 of the UN Charter and Article 33 (1) of the 1997 UN Convention on the Law of Non-Navigational Uses of International Watercourses (Watercourses Convention), providing the resort to negotiation in case of disagreement between countries.

(iii) The right to resort to international investigation

Another aspect to consider in the planning and development of dams is the possibility of resorting to an international investigation in the case of disagreement between riparian countries. This is explicitly affirmed in the 1923 Geneva Convention providing that:

- a) the investigation shall be jointly carried out;
- b) each of the riparian countries has the right to request such investigation;
- c) the investigation should arrive 'at the solution most favourable to their interests as a whole, and to draw up, if possible, a scheme of development, with due regard for any works already existing, under construction, or projected' (Article 2).

Other important provisions to consider from the 1923 Convention include:

- General conditions for the establishment, upkeep and operation of the works
- Equitable contributions by the states concerned towards the expenses, risks, damage and charges of every kind incurred as a result of the construction and operation of the works, as well as for meeting the cost of upkeep
- Settlement of questions of financial cooperation
- Methods for exercising technical control and securing public safety
- Protection of sites
- Regulation of the flow of water
- Protection of the interests of third parties
- Method of settling disputes regarding the interpretation or application of the agreements.

Moreover, some of the issues included in the 1923 Geneva Convention, such as the regulation of water flow or the security of public safety, are of particular relevance in the analysis on how to strengthen the current international legal regime.

⁶ Principle 2 of the Rio Declaration on Environment and Development, 1992.

⁷ See Case concerning the Gabcikovo-Nagymaros Project (Hungary v. Slovakia), I.C.J. Reports 1997, paras.79, 88, and 108.

2. Customary principles of international environmental law

General principles of international environmental law are binding on states in their uses of transboundary water resources, including those related to hydropower projects. These principles are the following:

- 1) Sovereignty to exploit water resources within the limits of international law. This means that the right of watercourse states to use water resources, including through the development of dams, is limited by the obligations stemming from international customary and treaty law.⁸
- 2) Duty not to cause damage to the environment of other states. A state shall take all appropriate measures to prevent significant transboundary harm caused by activities planned or carried out in its territory or otherwise under its jurisdiction or control. A state shall also take measures to minimize the risk of transboundary harm to occur. States are required to apply a due diligence standard.⁹
- 3) Right to sustainable development, taking into account its environmental, economic and social dimensions.¹⁰
- 4) Duty to cooperate to conserve, protect and restore the health and integrity of water ecosystems.¹¹
- 5) Effective access to judicial and administrative remedies to victims of environmental harm.¹²
- 6) Precautionary approach.¹³
- 7) Duty to ensure prior, timely and relevant notification on any activity likely to have significant adverse transboundary environmental effect to potentially affected States.¹⁴
- 8) Obligation to carry out an environmental impact assessment (EIA) required for any proposed activity likely to have an adverse impact on the environment.¹⁵

⁸ Principle 2 of the Rio Declaration on Environment and Development, 1992. Principle 21 of the Stockholm Declaration on Environment and Development.

⁹ In the Trail Smelter case, the arbitral Tribunal affirmed: “no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence”. 16 April 1938 and 11 March 1941, 13 R.I.A.A. 1905, at 1965. This approach was reaffirmed in subsequent decisions including the Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996, p. 226, p. 242. See also Arts. 7 and 21.2 of the UN Watercourses Convention; Art. 2 of the UNECE Water Convention. Case concerning Pulp Mills on the Uruguay River (Argentina v. Uruguay), judgement, 2010, I.C.J. Reports 2010, para.101; Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996 (I), para. 29; Case concerning the Gabčíkovo-Nagymaros Project (Hungary v. Slovakia), I.C.J. Reports 1997, par.140.

¹⁰ See Principles 3 and 4 of the Rio Declaration on Environment and Development, 1992. See also Art. 3 of the UNECE Water Convention; Case concerning the Gabčíkovo-Nagymaros Project (Hungary/Slovakia), Judgment, I.C.J. Reports 1997, p. 7, p. 78.

¹¹ See Art. 20 of the UN Watercourses Convention and Art. 2 of the UNECE Water Convention.

¹² Art. 32 of the UN Watercourses Convention; Principle 10 of the Rio Declaration on Environment and Development, 1992; UNECE 1998 Aarhus Convention or the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

¹³ Principle 15 of the Rio Declaration on Environment and Development, 1992; Art. 2 of the UNECE Water Convention.

¹⁴ Principle 19 of the Rio Declaration on Environment and Development; Arts. 11-19 of the UN Watercourses Convention. Case concerning Pulp Mills on the Uruguay River (Argentina v. Uruguay), judgement, 2010, I.C.J. Reports 2010, par.120.

¹⁵ Principle 17 of the Rio Declaration on Environment and Development; Art. 3.1(h) of the UNECE Water Convention; Art. 12 of the UN Watercourses Convention; Cases concerning Certain Activities carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua); Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), [2015] ICJ Rep. A/71/4 (‘Costa Rica v. Nicaragua/Nicaragua v. Costa Rica’), 2015,

- 9) Duties of due diligence, vigilance and prevention continue once operations have started and, where necessary, throughout the life of the project.¹⁶

3. Multilateral Environmental Agreements (MEAs)

The joint initiative identifies seven instruments dealing with environmental protection, which are relevant to identify common principles, rules and standards applicable to dams.

- **1971 Convention on Wetlands of International Importance Especially as Waterfowl Habitat or Convention on Wetlands or Ramsar Convention**

The primary focus of the Ramsar Convention is the conservation of wetlands. There are over 2,400 protected sites under the Convention, registered as Wetlands of International Importance. The construction of dams may have ecological implications for these vulnerable ecosystems, particularly the reduction of flows. Dams may potentially affect wetland hydrology, influencing both water quantity and quality. The planning of dams may be also a trigger for tensions among those using wetland goods and services as well as among urban and agricultural communities.

On the basis of this Convention¹⁷, countries planning dams should take into account the impacts on the protection of wetlands given their fundamental ecological functions as regulators of water regimes and as habitats for flora and fauna especially waterfowl. Guidelines adopted by the Parties to this Convention highlight the importance of considering the interaction between river basin management and wetland conservation. This is particularly relevant in the context of dams' planning and operationalization.

- **1972 Convention Concerning the Protection of the World Cultural and Natural Heritage or World Heritage Convention (WHC)**

While the 1972 Convention has no specific focus on dams, the construction of hydropower installations may have an impact on natural and cultural sites protected under this instrument.¹⁸ In fact, one of the reasons to develop the Convention was the decision to build the Aswan dam in Egypt that would have flooded the Abu Simbel temples. Following an international campaign supported by UNESCO, the temples were moved and reassembled in another area.¹⁹

The Convention establishes a World Heritage Committee. On several occasions, this body has called the Parties to pay attention to the impacts of dams on natural and cultural sites protected by the 1972 UNESCO Convention. For example, the Committee emphasized the potential damage of the hydropower dam planned by Tanzania at Stiegler's Gorge, located in the Rufiji River, on the Selous Game Reserve, which is a world heritage site.²⁰

par. 104; Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010, p. 14, p. 83; In the Matter of the Indus Waters Kishenganga Arbitration, Partial Award, 2013, par. 450.

¹⁶ Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010, p. 14, p. 83-84.

¹⁷ There are currently 171 States Parties.

¹⁸ There are currently 194 States Parties.

¹⁹ <https://whc.unesco.org/en/news/2056>

²⁰ <https://whc.unesco.org/en/news/1920>

- **1979 Convention on the Conservation of Migratory Species of Wild Animals or Convention on Migratory Species or Bonn Convention (CMS)**

As with the previous instruments, the 1979 Bonn Convention²¹ has no specific focus on dams. However, their construction may change the aquatic environment both upstream and downstream. These installations may also be a barrier to connectivity and particularly the migration of aquatic organisms. For example, Ganges dolphins have suffered a decline of nearly 20% due to the construction of dams in the Indian subcontinent over the past 70 years.²² A report of the Secretariat of the Convention recognizes that dams may act as “dead ends” for migratory species.²³

- **1982 United Nations Convention on the Law of the Sea (UNCLOS)**

While the focus of UNCLOS is on seas, this instrument contains provisions specific to rivers, in relation to migratory species and pollution of marine environment from land-based sources. This is particularly pertinent during the construction and operation of dams that might potentially affect such species or pollute the marine environment.²⁴

UNCLOS addresses the rights and obligations of states regarding fish stocks that are located exclusively in the international high seas, and that move between the international high seas and coastal nations’ 200-mile offshore exclusive economic zone (“EEZ”), or that move between different nations’ EEZ. The provisions of UNCLOS dealing with ocean fish stocks that “straddle” and “migrate” between the waters of different nations may provide guidance to freshwater fisheries that straddle and migrate between the waters of different nations and could be impacted by the construction of dams.²⁵

- **1992 Convention on Biological Diversity or Biodiversity Convention (CBD)**

This global Convention provides relevant objectives in the planning and execution of dams projects.²⁶ The conservation of biological diversity and the sustainable use of its components requires that states pay attention to the potential impacts of large water infrastructure, particularly dams. These might produce multiple impacts on biodiversity by submerging forests, changing the natural river flow, reducing sediment discharge, affecting groundwater recharge, increasing salinity as well as increasing pollution concentration. All these impacts severely affect associated biodiversity, ecosystem goods and services and dependent livelihoods. Under Article 6.2, Parties to the Convention are required to integrate biodiversity conservation and sustainable use of natural resources into sectoral or cross-sectoral plans and programmes. This also concerns policies to increase energy supplies or agricultural production through the construction of dams.

- **1991 Convention on Environmental Impact Assessment in a Transboundary Context or Espoo Convention as amended on 27 February 2001 (Sophia) and 4 June 2004 (Cavtat)**

This Convention explicitly mentions ‘large dams and reservoirs’ in its proposed activities list and requires member parties to conduct environmental impact assessment (EIA) before deciding to authorize or undertake a proposed large dam or reservoir that is likely to cause a significant adverse transboundary impact. It further requires states to notify affected riparian states of a proposed activity and consult with them regarding the potential transboundary impact of the proposed project and

²¹ There are 131 Member States.

²² <https://twitter.com/BonnConvention/status/1268917980592836609>

²³ https://www.unep-aewa.org/sites/default/files/document/inf2_6_cms_25th_anniversary_brochure_1.pdf.

²⁴ There are 168 States Parties to the UNCLOS Convention.

²⁵ See also the 1996 United Nations Treaty on Straddling and Migratory Fish Stocks.

²⁶ There are 196 States Parties to the Biodiversity Convention.

possible measures to reduce or eliminate its adverse consequences. The nature of the obligation on the party that proposes the construction of dams is to take 'due account' of the outcomes of the EIA, comments received from authorities and the public, as well as the result of consultations with the affected riparian states.

- **1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 2015 Paris Agreement**

Although the ultimate goal of the UN Framework Convention is to prevent dangerous human interference with the climate system, some of its provisions are relevant to dam planning and development.²⁷ This is the case of the commitments taken by member states to develop and elaborate appropriate and integrated plans for water resources and for the protection and rehabilitation of areas affected by drought, desertification and floods (Article 4§1(e)). Another relevant provision is Article 4.1(f), which provides that member states should take into account climate change considerations when drafting new social, economic and environmental policies, impact assessments and action plans. Such policies may include the development of dams.

Several principles enshrined in this Convention are relevant in the definition of standards applicable to dams, including the principle of intergenerational equity (Article 1.1), the precautionary principle (Article 1.3) and the right to sustainable development (Article 1.4).

The Paris Agreement²⁸ also touches on issues that might be relevant in dams' planning and development, in particular relating to mitigation, adaptation, loss and damage. Compared to the UNFCCC, this Agreement has an increased focus on the need for adaptive measures as part of the long-term global response to climate change, including protecting terrestrial and aquatic ecosystems. Moreover, it also aims at protecting communities vulnerable to the adverse effects of climate change (Article 7.2-5).

Key findings about Multilateral Environmental Agreements (MEAs)

MEAs protecting flora and fauna as well as global commons such as biodiversity, climate change, and oceans provide a common set of principles and rules relevant to states planning and operationalizing dams. The obligations stemming from these treaties are binding on all contracting parties. Although these obligations are not expressly related to dams, the principles enshrined in these instruments provide a general guidance to states in the planning and development of dams. The legal framework applicable to the development of these installations cannot be isolated by the general obligations that member states have under the MEAs.

4. Global water conventions

- **1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes or UNECE Water Convention**

The UNECE Water Convention has been ratified by 44 Parties, mostly European and Eurasian countries. Following the entry into force of two amendments in 2016, all UN Member States can accede to it. Beyond the UNECE region, Chad, Senegal and Ghana have acceded to it. The primary

²⁷ 197 Parties have ratified the Convention.

²⁸ 191 Parties out of 197 Parties to the Convention are Parties to the Paris Agreement.

focus of the Convention is on the prevention of transboundary harm and conservation of shared water resources.

There are no specific dams provisions; however, considering the scope and purpose of this Convention, it is no doubt applicable when a dam or a future dam will affect the protection and use of transboundary watercourses and international lakes of its Member States. The purpose of the Convention is to set up a framework for the protection and use of transboundary watercourses and international lakes. It does not replace bilateral and multilateral agreements, but instead fosters their establishment and implementation.

As a general obligation, the Convention requires its Parties to prevent, control and reduce transboundary impact, to use transboundary waters reasonably and equitably, to ensure their sustainable management, and to ensure conservation and restoration of ecosystems where necessary. (Article 2) Several principles are also mentioned in the Convention as applicable in cases of the protection and use of transboundary watercourses and international lakes: the precautionary principle, the polluter-pays principle and the intergenerational equity principle.

The Convention calls for Parties to provide the widest exchange of information, as early as possible, on issues covered by the Convention (Article 6 and Article 13). Consultations shall also be held between the Riparian Parties on the basis of reciprocity, good faith, and good neighborliness at the request of any such Party (Article 10). The Parties shall also inform each other without delay about any critical situation that may have transboundary impact, especially by setting up, where appropriate, and operating coordinated or joint communication warning and alarm systems (Article 14).

In case of a critical situation, parties shall also provide mutual assistance (Article 16). Finally, information on the conditions of transboundary waters, measures taken or planned to be taken to prevent, control and reduce transboundary impact, and their effectiveness, shall be made available to the public. The Convention pinpoints explicitly the need for the following information to be made public: water-quality objectives, permits issued and the conditions required to be met, and results of water and effluent sampling. (Article 16)

Moreover, the Parties to the UNECE Convention have established an Implementation Committee composed of 9 members. The Committee may receive requests of advice by member States concerning the implementation and compliance with the Convention. These requests could also include issues related to the planning, development and monitoring of dams. For example, in 2020, the Committee has received a request for assistance by Montenegro regarding the construction of small hydropower plants on the Cijevna/Cem River in Albania. Albania has accepted to participate in advisory procedure and the Committee is currently working on strengthening the cooperation between the two countries under the 2018 Framework Agreement on Mutual Relations in the Field of Management of Transboundary Waters.²⁹

- **1997 Convention on the Law of the Non-Navigational Uses of International Watercourses or UN Water Courses Convention**

Adopted by the United Nations General Assembly in 1997 and entered into force in 2014, 37 States have ratified the Convention. Its primary focus is on the sharing of transboundary waters. States' obligations include the following:

- To use watercourses and their resources in an equitable and reasonable manner (the right to utilize the watercourse and the duty to cooperate) (Article 5) ;

²⁹ Report ECE/MP.WAT/IC/2020/2, 11th Meeting of the Implementation Committee, September 2020.

- To take all appropriate measures to prevent the causing of significant harm to other watercourse States (the obligation not to cause significant harm) (Article 7) :
- To protect and preserve, individually and where appropriate jointly, the ecosystems of international watercourses (Article 20).

Obligations that are particularly relevant when planning, developing or monitoring dams, include the duty to exchange on a regular basis or when requested by another State, data and information on the condition of the watercourse (Article 9) as well as the duties related to the notification and consultation of planned measures (Arts.11-19).

Part III of the Convention sets out the notification and consultation provisions concerning planned measures, including projects on dams. Articles 11-19 of the Convention provide that States which plan to carry out or permit such measures to give timely notification and enter into consultation in good faith with other States that may be adversely affected. The provisions on planned measures of the UN Watercourses Convention are among the most important contributions of this instrument. The procedural obligations to notify and to consult on planned measures are linked to the effective implementation of the substantive requirements of equitable and reasonable use (Article 5) and the obligation not to cause significant harm (Article 7). Moreover, these obligations also specify the content of the duty of cooperation and provide standards for cooperation among riparian states. The requirements to notify and consult on planned measures appear as a mechanism to avoid disputes and create the right conditions for cooperation.

Other provisions applicable to dams are Article 25 on the river flows and Article 26 on installations. Article 25 requires that watercourse states respond in a cooperative way to the need and opportunities to regulate river flows. "Regulations" are defined as "the use of hydraulic works or any other continuing measure to alter, vary or otherwise control the flow of the waters of an international watercourse." This provision also states the obligation to share related costs and benefits in an equitable manner. Although this article does not contain rules on how to regulate flows, it provides for the obligation of cooperation and participation in the construction, maintenance and defrayal of costs in proportion to the benefits derived by hydraulic works, including dams.

Article 26 is also relevant in the context of dams projects, pointing out the watercourse's states have to employ "their best efforts to maintain and protect" these infrastructures. Moreover, it also emphasizes an obligation to enter into consultations when a state has "reasonable grounds to believe that it may suffer significant adverse effects". Such consultations include two issues: "a) the safe operation and maintenance of installations, facilities and other works related to an international watercourse; and b) the protection of such installations, facilities and other works from willful or negligent acts or the forces of nature".

In the case of an emergency such as the collapse of a dam, there is also an obligation to notify without delay and by the most expeditious means available other potentially affected states and competent international organizations of any emergency originating within its territory. The obligation of notification is complemented by the duty to immediately take all practicable measures to prevent, mitigate and eliminate harmful effects of the emergency (Article 28). Article 29 of the UN Watercourses Convention is also relevant in the context of dams. This provision points out that international humanitarian law protects water installations, including dams, during international and non-international armed conflicts.

The 1997 UN Watercourses Convention also allows states parties to resort unilaterally to an "impartial fact-finding" mechanism (Article 33.3).

Key findings about global water conventions

The UN Watercourses Convention and the UNECE Water Convention, focusing on the sharing and protection of transboundary water resources, also include key provisions relevant to the planning, development and monitoring of dams. Among these provisions, the obligation to exchange information, and the duties to notify, consult and negotiate in the case of planned measures that may have a significant adverse effect are some of the most important contributions of these instruments.

5. Human rights instruments

The development and operationalisation of dams not only has potential effects on nature, but also on people and their livelihoods. Particular attention to international human rights law is rising due to the increasing development of dam projects without consultation processes or their effects in vulnerable communities.

The joint initiative examines seven human rights instruments. Three of these instruments are global and four of them are regional treaties.

- **1966 International Covenant on Economic, Social and Cultural Rights (ICESCR)**

The Covenant has a territorial scope, but over the years, the UN Committee on ESC Rights has indicated that ICESCR may have an effect beyond the borders of state parties. Still, there is a lack of clear indications on the nature of these extraterritorial obligations.

The Covenant recognizes several ESC substantive rights relevant to the planning and operationalization of dams, including the right to water, the right to health, the right to food, housing rights and the right to an adequate standard of living.³⁰

With respect to ESC rights, the obligation of a state party is to take steps to the maximum of its available resources, and with a view to progressively and fully realizing the rights in the Covenant. A sense of progressive realization is enshrined in the Covenant and the full realization of rights is not immediate (Article 2).

Limitations on ESC rights are to be (1) determined by law, (2) compatible with the nature of the rights and (3) solely for the purpose of promoting general welfare in a democratic society (Article 4). The UN Committee on Economic, Social and Cultural Rights, as well as state parties that have reported on their obligations rarely bring up this article and instead rely on the progressive realization of ESC rights to account for limitations on these rights.

- **1966 International Covenant on Civil and Political Rights (ICCPR)**

The ICCPR commits its parties to respect and ensure for all individuals within its territory and subject to its jurisdiction civil and political rights without discrimination on race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.³¹

There are a set of rights enshrined in the ICCPR which might be relevant in the context of dams, including the right to life, the right to the freedom of expression and minorities' rights. Parties to the

³⁰ 171 Parties have ratified the Covenant.

³¹ 173 Parties have ratified the Covenant.

Covenant have to regularly submit reports detailing the degree of fulfilment of their obligations to the Human Rights Committee.

- **1989 ILO Convention 169 also called the Indigenous and Tribal Peoples Convention**

This Convention includes provisions that are relevant in the context of the planning and operationalization of dams.³² These installations may affect tribal and indigenous peoples' rights. Under its Article 7.3, state parties have to assess the social, spiritual, cultural and environmental impact of planned development activities on indigenous peoples. The results of this assessment serve as a fundamental criterion for the implementation of these planned activities. According to Article 13, state parties have to respect the special importance to the cultural and spiritual values of indigenous and tribal peoples of their relationship with the lands or territories that they occupy.

Moreover, the Convention includes the duty to establish adequate procedures to resolve land claims brought by indigenous and tribal peoples (Article 14) and the obligation of not removing peoples from the lands they occupy. Relocation is seen as an exceptional measure that must take place only with the peoples' free and informed consent. If consent cannot be obtained, relocation can occur following appropriate measures that ensure effective representation of the peoples concerned (Article 16). Indigenous communities have a right to participate in the decision-making process and there is a corresponding obligation to consult indigenous and tribal peoples, through their representative institutions, when legislative and administrative measures that may directly affect them are being considered (Article 6.1(a)).

- **1998 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters or Aarhus Convention**

The Convention grants the public rights to access information, to participate and to access justice in governmental decision-making processes on matters concerning the local, national, and transboundary environment.³³

Article 6 of the Convention requires member parties to ensure public participation in decision-making on specific activities. Among the lists of proposed activities for which states are obligated to ensure public participation are: 'dams and other installations designed for the holding back or permanent storage of water, where a new or additional amount of water held back or stored exceeds 10 million cubic metres' (Annex I §13). Accordingly, decisions on planning and development of dams and whether to permit such proposed activities requires states to apply public participation procedures. Thus, the public concerned must be informed early in the environmental decision-making process, and in an adequate, timely and effective manner, inter alia, of the following elements:

- Information about this additional water load;
- Nature of the possible decision;
- Authority in charge of the decision;
- Envisaged procedure: when, how where, who, the available environmental information;
- Determination if the activity is subject to a national or transboundary environmental impact assessment procedure.

Reasonable timeframes are necessary to allow adequate public participation in decision-making processes. A detailed regime on information that the public concerned is entitled to receive is

³² Only 23 countries have ratified the Convention. Most of them are from South America.

³³ The Convention has 47 Parties.

provided in Article 6.6. According to Article 6.7, the public also has the right to submit its own comments, information, analyses and opinions. The final decision on the project must take due account of the outcome of the public decision-making process and the public must be informed of the decision with the reasons and considerations on how its comments were taken into account (Article 6.8-9).

- **1981 African Charter on Human and Peoples' Rights or Banjul Charter**

This Charter is open for ratification by the African state members of the African Union.³⁴ This instrument includes both individual and collective rights that can be affected by the planning and operationalization of dams. They include the right to life (Article 4), the right to health (Article 16), the right to property (Article 14) as well as cultural rights (Article 16). Peoples' rights may also be affected. For example, peoples have the right 'to pursue their economic and social development according to the policy that they have freely chosen' (Article 20). Moreover, Article 21 emphasizes the 'right to freely dispose of ... wealth and natural resources with the exclusive interest of the people and without any limitation.' Dams may also affect the right to a healthy environment explicitly recognized under the African Charter.

The Charter also establishes the African Commission on Human and Peoples' Rights, tasked with promoting and protecting human rights by interpreting the African Charter and considering individual complaints (Article 45). The Commission examines national reports on the situation of human rights each State submits periodically (Article 62) and adjudicates complaints submitted by State parties (Article 47), individuals and NGOs. The African Court on Human and Peoples' Rights was later created in 2004, by virtue of the Protocol to the African Charter on Human and Peoples' Rights, to complement the work of the Commission.

- **1969 American Convention on Human Rights or Pact of San José**

The Convention has been ratified by 25 of the 35 Organisation of American States' member states. Several rights included in this Convention may be affected by the construction of dams, including the right to property (Article 23), the right to life (Article 4) and the right to personal integrity (Article 5).

The Convention sets up two institutional bodies to monitor and provide recommendations on the implementation of the Convention. The Inter-American Commission on Human Rights can decide on individual complaints concerning alleged human rights violations and may also issue emergency protective measures when an individual or a community is at immediate risk of irreparable harm. The Inter-American Court of Human Rights has similar tasks to the Commission and may also render advisory opinions on issues pertaining to the interpretation of the Inter-American instruments at the request of an OAS organ or state party (Article 64). Only state parties and the Commission can submit a case to the Court and under conditions set in Articles 48 to 50.

- **1950 Convention for the Protection of Human Rights and Fundamental Freedoms or European Convention on Human Rights**

As in the American Convention and the African Charter, several rights enshrined in the European Convention may be affected by the development of dams. They include the right to life (Article 2), the right to respect private life (Article 8), the right to an effective remedy (Article 13) and the prohibition of discrimination (Article 14).

The Convention establishes the European Court of Human Rights.³⁵ The Court has jurisdiction over all matters concerning the interpretation and application of the Convention and its Protocols (Article 32).

³⁴ The Charter has 54 Parties out of the 55 States members of the African Union.

³⁵ The Convention has 47 member States.

It examines complaints alleging violations of human rights submitted by individuals or State Parties (Article 33-34). The Court, over the years, has developed a doctrine of “margin of appreciation”, relating to the range of deference the Court gives to States on the implementation of their obligations under the Convention. The Court can also issue advisory opinions on legal questions concerning the interpretation of the Convention, at the request of the Committee of Ministers (the Council of Europe’s statutory decision-making body made up of the Ministers for Foreign Affairs of Member States) but outside the content and scope of the rights and freedoms enshrined in the Convention. (Article 47).

Key findings about human rights treaties

Global and regional human rights treaties provide a common set of principles and rules to states planning and operationalizing dams. The obligations stemming from these treaties are binding on all contracting parties. Many of these instruments also include the establishment of judicial or quasi-judicial bodies where individuals and communities can bring complaints related to the alleged violations of the provisions of these instruments.

6. International standards

Initiatives from the private sector and other stakeholders to regulate development projects are relatively new but increasingly used. Although establishing norms, standards, principles and obligations for companies is still a work in progress, these offer guidance on how to articulate business activities while protecting the environment and ensuring respect for human rights.

Our analysis will look at the following instruments:

- **2010 Hydropower Sustainability Assessment Protocol**

This Protocol was drafted in 2010 by a multi-stakeholder forum including representatives of environmental and social NGOs, development banks, governments and the hydropower sector. It was updated in 2018 to include issues of climate change resilience and mitigation.

This document defines international good and best practices in sustainable hydropower development and serves as a support tool to assess the sustainability of individual projects.

- **Performance Standards of the International Finance Corporation**

The latest version of the IFC Performance Standards dates back to 2012 and applies to all investment and advisory clients whose projects go through IFC’s initial credit review process after 2012. The Standards define IFC clients’ responsibilities for managing their environmental and social risks. The IFC is an international financial institution, a member of the World Bank Group, for advancing economic development by investing in for-profit commercial projects for poverty reduction and promoting development.

The IFC Performance Standards are applicable to dams funded by IFC or any other entity requiring its clients/recipients to follow them when developing a new project. In this sense, dam developers can also decide to follow them. Performance Standard 4 on Community Health, Safety and Security singles out dams in one of its provisions. It provides that when dams are situated in high-risk locations, and their failure or malfunction may threaten the safety of communities, the client will engage one or more experts to conduct a review as early as possible in project development and throughout the stages of project design, construction, operation and decommissioning.

There are multiple procedural requirements for each performance standard. For example, Performance Standard 1 on Assessment and Management of Environmental and Social Risk describes in detail what a stakeholder engagement requirement may entail and is referred to in multiple sections of other Performance Standards.

According to IFC standards, the client has to identify the range of stakeholders, including affected communities, and allow the effective participation of those identified as disadvantaged or vulnerable. Moreover, the client should also provide affected communities with access to relevant information on the nature, purpose and size of the project. For projects with adverse impacts on indigenous peoples, the client has to engage them in an informed consultation process and in certain circumstances to obtain free, prior and informed consent. Where there are affected communities, the IFC should establish a grievance mechanism to receive and facilitate resolution of affected communities' concerns and grievances about the client's environmental and social performance.

- **2011 UN Guiding Principles on Business and Human Rights**

The Human Rights Council endorsed the UN Guiding Principles on Business and Human Rights in its resolution 17/4 of 2011.

There are no specific provisions relating to dams but these UN Guiding Principles formulate human rights standards that companies should respect in their supply and value chains. The Guiding Principles are divided into three sections:

- State duty to protect human rights;
- Corporate responsibility to respect human rights; and
- Access to remedy

The State duty to protect human rights recalls the states' international human rights law obligations to respect, protect and fulfil the human rights of individuals within their territory and/or jurisdiction, including the duty to protect against human rights abuse by third parties, including business enterprises.

The Corporate Responsibility to Respect Human Rights elaborates on the responsibility for business enterprises to respect human rights as a global standard of expected conduct. It is the first international document to clearly articulate what this responsibility entails. Among these responsibilities, business enterprises should have in place processes to enable the remediation of any adverse human rights impacts they cause or to which they contribute. Moreover, in order to assess human rights risks, business enterprises should engage in meaningful consultation with potentially affected groups and other relevant stakeholders. This is part of the due diligence process.

Access to remedy is part of the state's duty to protect against business-related human rights abuse. States must take appropriate steps to ensure, through judicial, administrative, legislative or other appropriate means, that when such abuses occur within their territory and/or jurisdiction those affected have access to effective remedy.

It should be noted that access to remedy is also a requirement for a business enterprise to fulfill. According to Principle 29, companies should make it possible for grievances to be addressed early and remediated directly. Business enterprises should establish or participate in effective operational-level grievance mechanisms for individuals and communities who may be adversely impacted. Operational-level grievance mechanisms are typically administered by enterprises or provided through recourse to a mutually acceptable external expert and should comply with a set of criteria, including being: a)

legitimate; (b) accessible; (c) predictable; (d) equitable; (e) transparent; (f) rights-compatible; (g) a source of continuous learning. Operational-level mechanisms should also be (h) based on engagement and dialogue.

- **2011 OECD Guidelines on Multilateral Corporations**

The updated guidelines were adopted in 2011 by the Ministerial Meeting of the Organization for Economic Cooperation and Development (OECD). There are currently 49 adhering countries. These are non-binding principles and standards for responsible business conduct, consistent with applicable laws and internationally recognized standards, for multinational corporations³⁶ operating in or from countries adhering to the OECD Declaration on International Investment and Multinational Enterprises.

The Guidelines are addressed to all entities within the multinational enterprise (parent companies and/or local entities). The issues covered by the Guidelines include human rights and the protection of the environment. Although there are no specific provisions applicable to dams, these are general guidelines of which some may be applicable in the context of dams, if a multinational enterprise engages in a dam project. There can also be instances where these guidelines will be the subject of individual, national or international commitment.

According to the Guidelines, entities have to carry out human rights due diligence (Section IV §5) and provide for or cooperate through legitimate processes in the remediation of adverse human rights impacts where they identify that they have caused or contributed to these impacts (Section IV §6).

Each adhering country has to set a National Contact Point, an entity responsible for the promotion of the Guidelines on a national level and assisting enterprises and their stakeholders to take appropriate measures to further the implementation of the guidelines. The OECD Investment Committee is responsible for overseeing the functioning and for providing clarification of the Guidelines.

Key findings about international standards

International standards applicable to private entities play an increasingly important role. The adoption of the UN Guiding Principles on Business and Human Rights in 2011 by the Human Rights Council as well as the revisions of the OECD Guidelines on Multinational Enterprises and the IFC Performance Standards are all signs of the commitments taken by the private sector to respect human rights. In this context, procedural rights such as the participation and consultation with local communities in project planning and operationalization should be taken into account. Moreover, private companies should also ensure access to grievance mechanisms that address complaints of potential harm to individuals. These companies-based mechanisms should complement and not replace access to judicial and quasi-judicial mechanisms at the domestic and international levels.

³⁶ The Guidelines do not include a precise definition of multinational enterprises and instead refer to them as “companies or other entities established in more than one country and so linked that they may coordinate their operations in various ways”. (I.§4)

Final remarks

The present document has reviewed the customary principles and relevant treaties applicable to the planning, development and monitoring of dams on transboundary watercourses. The key findings are:

- There is no single global instrument to regulate dams;
- The instruments applicable to the construction, development and monitoring of dams are scattered in various areas of international law, including international water law, international environmental law and human rights law;
- Multinationals and business enterprises involved in the construction of dams have responsibilities in terms of environmental, health and human rights standards. The negotiations of a binding instrument on business and human rights could help to set up what are the specific norms in this field;
- States need to adopt specific principles, rules and provisions from the various instruments and implement them according to their regional, basin and national needs.



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