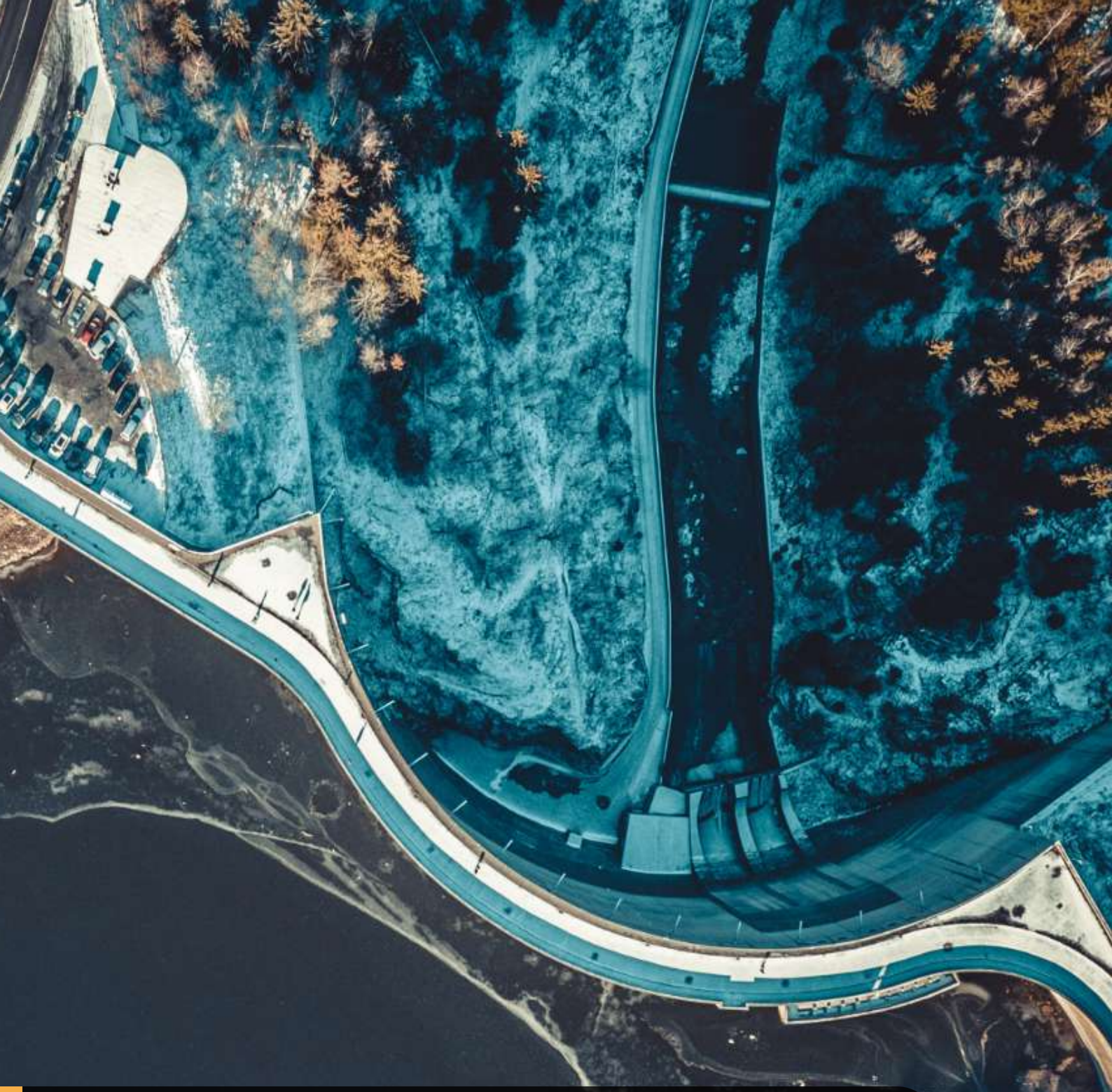


Checklist for

Assessing the International Law Applicable to Transboundary Hydropower

Northumbria University NEWCASTLE
Universiteit Leiden Governance and Global Affairs
國際水擎中心 INTERNATIONAL WATER LAW ACADEMY
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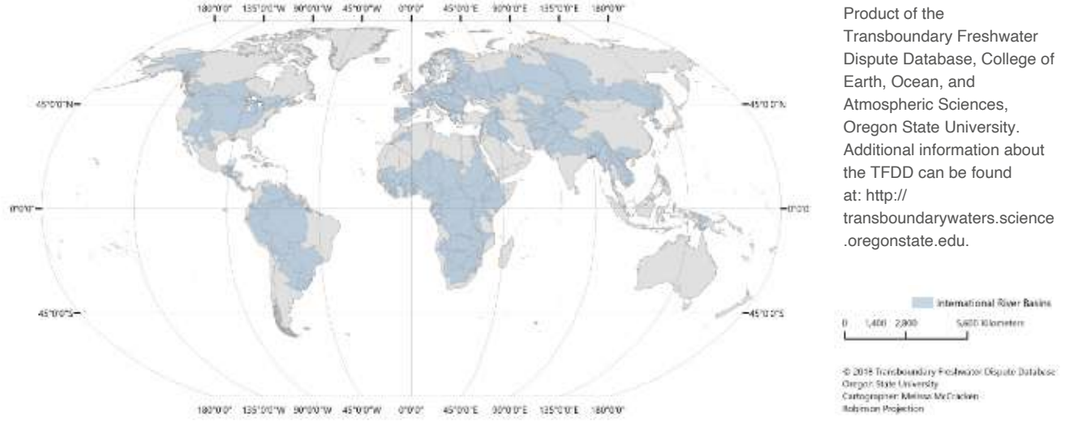
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Introduction

The International Renewable Energy Agency estimates that the shift away from fossil fuels towards 'net Zero' requires a 25% increase in hydropower capacity by 2030, and a 60% increase by 2050.[1] Renewable energy, including hydropower, is also key to progressing many of the Sustainable Development Goals (SDGs). Approximately 70% of planned or under construction hydropower projects are on transboundary rivers, i.e., those shared by two or more countries.[2] These projects raise serious questions over how the costs and benefits of hydropower development should be equitably shared across borders. Africa and the Himalayas are highlighted as key regions for transboundary hydropower expansion, while in other regions hydropower potential has been identified in key transboundary basins, such as the Amazon River.[3] An added complexity to these projects is that their financing, planning, construction and operation may involve not only riparian countries, but also foreign investors. For example, China has participated as contractor, financier or developer in approximately 280 hydropower projects in South-east Asia,[4] and Chinese entities have invested approximately 15 billion USD in various hydropower and related projects in 20 African countries.[5]

Hydropower projects on transboundary rivers (or transboundary hydropower projects)[6] can result in a multitude of benefits.[7] These benefits are illustrated through examples such as the way in which Canada and the United States of America share the Columbia River, or Guinea, Mali, Mauritania, and Senegal share the Senegal River.[8] However, the development of hydropower may also result in negative externalities to both communities and the environment. Weighing both the benefits and costs of hydropower developments on transboundary waters needs careful consideration on the basis of international law. Any benefits must be equitably shared, and any impacts carefully assessed, and where possible mitigated or avoided.

International River Basins of the World



Product of the Transboundary Freshwater Dispute Database, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University. Additional information about the TFDD can be found at: http://transboundarywaters.science.oregonstate.edu.

1 International Renewable Energy Agency, Global Renewables Outlook – Energy Transformation 2050, https://www.irena.org/publications/2020/Apr/Global-Renewables-Outlook-2020, at 28.
2 Cecilia Llamosas and Benjamin K Sovacool, 'The Future of Hydropower? A systematic review of the drivers, benefits and governance dynamics of transboundary dams', 137 Renewable and Sustainable Energy Reviews (2021).
3 Rongrong Xu, et al, 'A Global-scale Framework for Hydropower Development Incorporating Strict Environmental Constraints', 1 Nature Water 112 (2023).
4 Frauke Urban, et al, 'An Analysis of China's Investment in the Hydropower Sector in the Greater Mekong Sub- Region', 15 Environmental Development and Sustainability 306 (2013).
5 Deborah Brautigam and Jyhjong Hwang, 'Great Walls Over African Rivers: Chinese engagement in African hydropower projects', 37 Development Policy Review 315 (2017).
6 The checklist covers both hydropower projects that may be situated on the border between two countries and jointly developed, and hydropower projects that are located in one country, but may have impacts (existing or potential) in another riparian country.
7 See United Nations Economic Commission for Europe (UNECE), Policy Guidance Note on the Benefits of Transboundary Water Cooperation: Identification, Assessment and Communication, October 2015, UN Doc. ECE/MP.WAT/47; and David Grey and Claudia Sadoff, 'Beyond the River: The Benefits of Cooperation on International Rivers', 4 Water Policy 389 (2002).
8 International Energy Agency, Climate Impacts on African Hydropower, 2020. https://www.iea.org/reports/climate-impacts-on-african-hydropower

A major bottleneck at the transboundary level is often the lack of a clear and coherent legal framework by which to plan, assess, approve, and implement hydropower projects in an equitable and sustainable way. There is a myriad of different laws, policies and standards at the global, regional, national, and sub-national levels that may apply.[9] In some instances, countries may have in place an agreement that sets out rights and obligations pertaining to the protection and use of a particular river, as well as a river basin organisation responsible for overseeing the implementation of that agreement. However, many countries may not have such an agreement in place. SDG indicator 6.5.2 data suggests that only 56 out of 153 countries sharing transboundary rivers and lakes have 90 per cent or more of their basin area covered by operational arrangements for water cooperation.[10] The majority of these countries are in Europe, North America and Sub-Saharan Africa, whilst only seven countries across Asia, North Africa and Latin America combined claim to have 90 percent or more of their basin area covered by such arrangements.[11] Where arrangements are lacking, countries must rely on more general commitments found in regional or global conventions or customary international law. An added complexity of transboundary hydropower projects is that they will require countries to account, not only for international law relating to transboundary rivers, but other areas of international law, including law relating to international investment, environmental protection and human rights. Additionally, the countries and business enterprises involved in hydropower projects may be required to follow certain policies or standards, such as those of multilateral development banks or industry associations. While the laws relating to the protection and use of transboundary waters focus specifically on the transboundary nature of sharing those waters, many of these other laws, policies and standards say little about their application within a transboundary context. There is also a need to consider the implementation of international law within a domestic legal context, which introduces an additional layer of regulatory complexity.





9 See Alistair Rieu-Clarke, 'Transboundary Hydropower Projects Seen Through the Lens of Three International Legal Regimes – foreign investment, environmental protection and human rights' 3(1) International Journal of Water Governance 27 (2015).

10 UNECE and UNESCO, Progress on Transboundary Water Cooperation: global status of SDG indicator 6.5.2 and acceleration needs, 2021, https://www.unwater.org/publications/progress-transboundary-water-cooperation-2021-update.

11 Ibid.

Aims and Objectives of the Checklist

The purpose of this checklist is to help those involved in hydropower projects navigate through the various laws, policies, and standards that might apply to a project situated on a transboundary river. The checklist is a tool by which users can quickly ascertain which laws, policies, and standards may apply, and consider the relationship between those different laws, policies, and standards.

Warning!!! While the checklist can offer a preliminary insight into the laws, policies and standards that may apply to a hydropower project situated on a transboundary river, there will still be a need to conduct a thorough analysis of those laws, policies, and standards in order to gain a comprehensive picture of the law applicable to a particular project.

Warning!!! The checklist does not consider the national law that may apply to a particular project. A detailed analysis of the specific national laws applicable to the hydropower project in question will therefore be required to gain a full picture of the legal rights and obligations placed on States and business enterprises involved in a particular project.

Who is the Checklist's target audience?

The checklist seeks to support experts, both lawyers and non-lawyers, involved in the planning, construction and operation of hydropower projects situated on transboundary rivers, and experts representing riparian countries and communities potentially affected by a project. These experts may be civil servants working on a project and based within a government agency or ministry, such as environment, energy, infrastructure or foreign affairs; employees or in-house counsel of business enterprises involved in the planning, construction and operational of hydropower projects, such as engineering and construction companies, law firms, and environmental consulting firms; employees of financial institutions, such as multilateral development banks, private banks and other financiers; representatives of non-governmental and civil society organisations involved in the evaluation of hydropower projects; and international and regional inter-governmental organisations that have a mandate to support transboundary water cooperation, and the development of infrastructure projects, such as UN agencies and regional commissions. More generally, the checklist might benefit those who wish to gain a general understanding of the law applicable to hydropower projects on transboundary rivers.



How to use the checklist

The checklist is structured in a way that allows the user to conduct a preliminary assessment of whether the key laws, policies and standards that may apply to hydropower projects on transboundary rivers have been followed. Users should follow the three stages outlined below:

1.

Stage one:

Is the project transboundary?

Stage one requires the user to consider whether the project is transboundary. To assist in answering this question, users are provided with additional guidance and further reading (see p. 11). If the answer is no, then the rest of the checklist would not apply. If the answer is yes, the user should move to stage two.

2.

Stage two:

Have the procedural rules of international law been met?

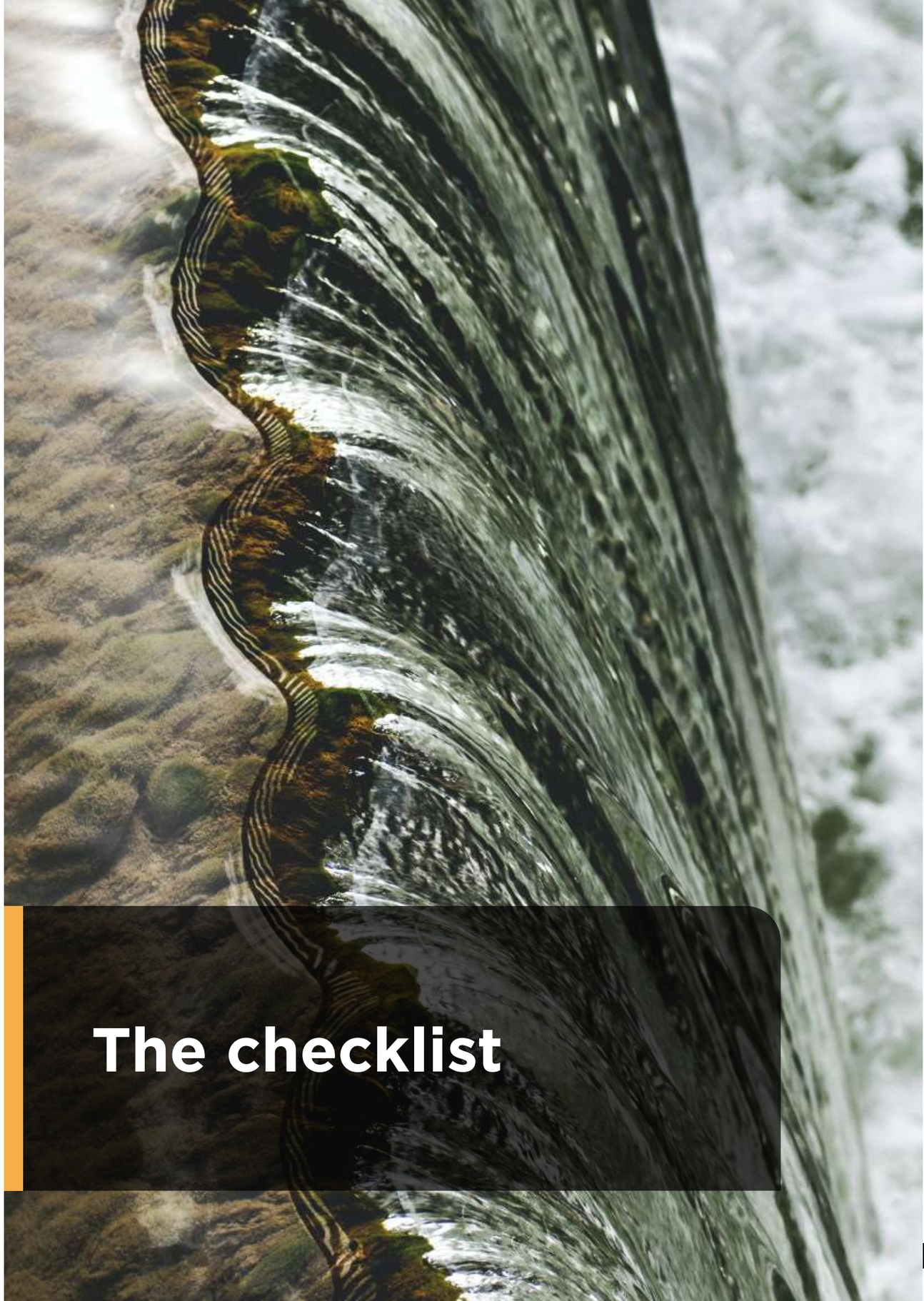
Stage two requires the user to consider a series of questions/statements that help evaluate whether key procedural international law obligations have been met (see p. 10). Additional guidance and further reading on each of the questions/ statements is provided within the checklist at pp. 12-19. If the answer to all questions is yes, the user should then move on to stage three. Where any of the answers/statements are not ticked yes, or opinions differ, the appropriateness of applicable dispute settlement procedures might be considered (see p. 52 for guidance).

3.

Stage three:

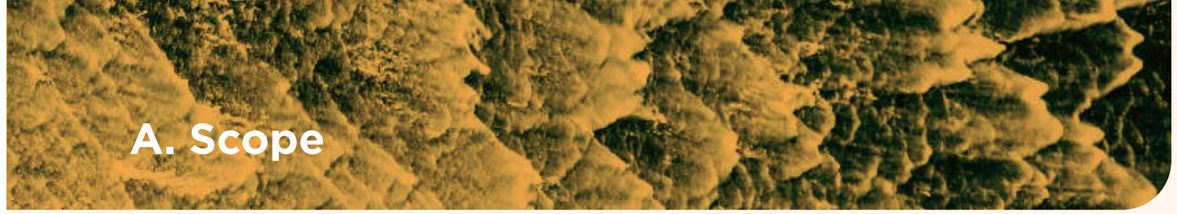
Have the substantive rules of international law been met?

Stage three requires the user to consider a series of questions/statements that assess whether substantive rules of international law have been met. Additional guidance and further reading on each of the questions/ statements is provided within the checklist (see pp. 20-25). Where any of the answers/statements are not ticked yes, or opinions differ, the appropriateness of applicable dispute settlement procedures might be considered (see p. 52 for guidance).



The checklist

	Yes	No	
A. Is the project transboundary? (see p. 11 for guidance)			Where the answer is '**yes**', then questions **B** and **C** apply. Where answered **'no'** the checklist does not apply but some of the laws, policies and standards mentioned, such as human rights laws, may.
B. Have the procedural rules of international law been met?			Answering '**yes**' to all questions/ statements indicates that the procedural rules of international law relating to a particular project may have been met. However, a more extensive and project- specific analysis will be required to comprehensively determine whether there has been full compliance with the applicable national and international law. Where any of these answers are not ticked **'yes'**, or opinions differ, the appropriateness of applicable dispute settlement procedures might be considered (see p. 52 for guidance)
The planning State(s) and/or business enterprise(s) has met its due diligence obligation to assess the transboundary impact of a project (see pp. 12-13 for guidance)			
The planning State(s) has met its obligation to notify and consult other riparian States where relevant (see pp. 14-15 for guidance)			
The planning State(s) and/or business enterprise(s) has met its obilgation to conduct a transboundary environmental impact assessment (EIA) (see pp. 16-17 for guidance)			
The planning State(s) and/or business enterprise(s) has met its obligation to consult with potentially affected communities and non-State actors (see pp. 18-19 for guidance)			
C. Have the substantive rules of international law been met?			Answering '**yes**' to all questions/ statements indicates that the substantive rules of international law relating to a particular project may have been met. However, a more extensive and project- specific analysis will be required to comprehensively determine whether there has been full compliance with the applicable national and international law. Where any of these answers are not ticked 'yes', or opinions differ, the appropriateness of applicable dispute settlement procedures might be considered (see p. 52 for guidance)
The project is consistent with the principle of equitable and reasonable utilisation (see p. 20 for guidance)			
The project is consistent with the due diligence obligation to take all appropriate measures to prevent significant harm (see p. 20 for guidance)			
The project is consistent with the obligation on the planning State(s) to protect ecosystems of a transboundary rivers (see pp. 22-23 for guidance)			
The project is consistent with the obligation to protect substantive human rights (see pp. 24-25 for guidance)			



A. Scope

Key question	**Is the hydropower project transboundary?**
Commentary	Where a project is located on a river, parts of which are situated in different countries, then determining the transboundary nature of the project should be relatively straightforward. Pursuant to both the Convention on the Use of the Protection of Transboundary Watercourses and International Lakes (1992 Water Convention) and the Convention on the Law of the Non-navigational Uses of International Watercourses (1997 Watercourses Convention), a systems approach should be adopted, whereby all parts of the watercourse system, including both surface water and groundwater, as well as the main channel and tributaries, should be considered. More generally under international law, States have a responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or other areas beyond the limits of their national jurisdiction. If a project therefore has the potential to cause damage to one or more other States sharing that river, then it will be important to determine whether questions in parts b and c of the checklist can be answered satisfactorily.
Project stage	Preparation
Laws, standards and guidelines	• 1997 Watercourses Convention and 1992 Water Convention (if Party)
Further reading	• UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021) pp. 17-18.

B. Procedural obligations

Key question

Has the planning State(s) and/or business enterprise(s) met its due diligence obligation to assess the transboundary impact of a project?

Commentary

Obligations on a planning State:

Under the due diligence obligation to take all appropriate measures to prevent significant transboundary harm (see p. 21), a State planning a project is obliged to assess whether that project is likely to cause a transboundary impact. Where such an assessment suggests that the project may have a significant adverse impact, then the planning State(s) will be obliged to notify any potentially affected riparian State (see pp. 14-15 below), and to conduct a transboundary environmental impact assessment (see pp. 16-17 below).

Obligations on business enterprises:

A requirement to assess whether a project may have a transboundary impact might be placed upon business enterprises involved directly in the planning, construction and operation of a project, or any company selling component parts of the project through a range of different instruments, including national legislation.

Where private finance comes from a financial institution, there may be a requirement to conduct an environmental and social risk assessment (including climate risks) as part of these financing arrangements (see for example the Equator Principles pp. 44-46 below).

Hydropower companies that subscribe to the IHA's Sustainability Guidelines and Protocols are obliged to assess, the governance environment including any transboundary issues, as well as any governance risks. Such risks, according to the IHA's Protocol may include, 'limitations or uncertainties in the institutional arrangements between neighbouring jurisdictions that address boundary-related issues' (see pp. 46-47 below).

Business enterprises following the OECD Guidelines for Multinational Enterprises are also required to assess the impacts of projects, including any risk of adverse human rights impacts, and to take account of the need to, 'protect the environment, public health and safety, and generally conduct ... activities in a manner contributing to the wider goal of sustainable development' (see pp. 43-44 below). Further requirements for business enterprises to assess potential human rights impacts of a project can be found in the Guiding Principles on Business and Human Rights, and The International Law Commission's Draft Principles on Protection of the Environment in Relation to Armed Conflicts (see pp. 45-46 below).

Project stage

Preparation; implementation; operational and retrofitting, and refurbishment

Laws, standards and guidelines

- River basin, sub-basin, and bilateral treaties (if in force), and associated supplementary instruments
- Regional water conventions (if in force)
- 1997 Watercourses Convention and 1992 Water Convention (if Party)
- 1991 Espoo Convention (if Party)
- 1989 ILO Indigenous and Tribal Peoples Convention
- Development Bank Environmental and Social Standards
- IHA Sustainability Guidelines and Protocols
- OECD Guidelines for Multinational Enterprises
- Guiding Principles on Business and Human Rights
- The Equator Principles
- The 1997 Rio Declaration on Environment and Development
- 1972 Stockholm Declaration on the Human Environment
- 2022 Draft Principles on Protection of the Environment in Relation to Armed Conflicts
- National water and environmental laws

Further reading

- See Background Note pp. 34-47.
- IUCN Environmental Law Centre and Geneva Water Hub, Dams. Water Flows in a Fragmented World (IUCN 2021), pp 4, 6-7, 11-14, Annex (pp 25-28, 34-35)
- UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021), pp 75-78.

Key question

Has the planning State(s) met its obligation to notify and consult other riparian States where relevant?

Commentary

Where a State finds that there may be a risk of causing significant transboundary harm, they are required to notify and consult with other riparian States that may be potentially affected by the activity. The obligation to notify and consult can be seen as an extension of the duty to cooperate, and the due diligence obligation to take all appropriate measures to prevent significant transboundary harm.

Notification and consultation procedures may vary depending on the laws, policies and standards that apply to the project. For example, the World Bank's Operational Policy 7.50 requires notification to all riparian countries, whereas the Watercourse Convention only requires the planning State to notify the countries where there is a risk of causing a significant adverse transboundary impact (see pp. 37-39 below).

Parties to the Espoo Convention will also be under specific requirements related to notification where a proposed activity is likely to cause a significant adverse transboundary impact. In such circumstances, the Party planning the activity must notify any potentially affected party as early as possible and no later than when informing its own public.

States are also obliged to notify other potentially affected States of any emergency originating within its territory, which might include dam failures (see for example Arts 27 and 28 of the 1997 Watercourses Convention).

Additional notification and consultation procedures, both for planned measures and for dealing with emergency situations, may be contained in basin-specific treaty arrangements or procedures of a river basin organisation.

In some instances, notification may follow an environmental impact assessment (see for example Art. 12 of the 1997 Watercourses Convention), whereas in other instances, an environmental impact assessment may be conducted jointly with affected parties as part of the notification and consultation process (see for example Art. 3 of the Espoo Convention).

Project stage

Preparation; implementation; operational and retrofitting, and refurbishment

Laws, standards and guidelines

- River basin, sub-basin and bilateral treaties (if in force), and associated supplementary instruments
- Regional water conventions (if in force)
- 1997 Watercourses Convention and 1992 Water Convention (if Party)
- Espoo Convention (if Party)
- Development Bank Policies and Standards

Further reading

- See Background Note, pp. 30-31.
- IUCN Environmental Law Centre and Geneva Water Hub, Dams. Water Flows in a Fragmented World (IUCN 2021), pp 6-7, 9-10, Annex (pp 19-20)
- UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021), pp 44-48, 71-72.

Key question

Has the planning State(s) and/or business enterprise(s) met its obligation to conduct a transboundary environmental impact assessment (EIA)?

Commentary

Obligations on a planning State:

The obligation to conduct a transboundary EIA for a project that may have a significant adverse impact is widely accepted as customary international law and can also be seen as an extension of the obligation to take all appropriate measures to prevent significant transboundary harm. Such an assessment should assess both the environmental and social impacts of a project.

Specific requirements to carry-out out a transboundary EIA may be found within a basin, sub-basin or bilateral treaty, or regional instruments, such as the Espoo Convention.

Where development bank funding is in place, borrower States will be required to carry out an environmental and social assessment of the project. For example, the Environmental and Social Framework of the World Bank requires borrowers to carry out an environmental and social assessment, that includes any transboundary risks and impacts (see pp. 37-39 below).

Obligations on business enterprises:

As noted above, where private finance comes from a financial institution, there may be a requirement to assess the environmental and social risks of a project as part of these financing arrangements (see for example the Equator Principles pp. 42-43 below).

Hydropower companies that subscribe to the IHA's Sustainability Guidelines and Protocols are obliged to assess the environmental and social risks of a project during the preparatory stage, including assessing how any transboundary issues will be addressed, and the need to assess downstream flows. The Protocol stipulates that, a process should be in place, 'to assess and make determinations on downstream flow regimes', which, 'should take into account transboundary stakeholders' interests and objectives' (see pp. 46-47 below).

Business enterprises will also be required to follow any national laws relating to environmental impact assessment, although national legislation may not always extend to the transboundary aspects of a project.

Project stage

Preparation; implementation; operational and retrofitting, and refurbishment

Laws, standards and guidelines

- River basin, sub-basin, and bilateral treaties (if in force), and associated supplementary instruments
- Regional water conventions (if in force)
- 1997 Watercourses Convention and 1992 Water Convention (if Party)
- Espoo Convention (if Party)
- 1989 ILO Indigenous and Tribal Peoples Convention
- Development Bank Environmental and Social Standards
- IHA Sustainability Guidelines and Protocols
- OECD Guidelines for Multinational Enterprises
- Guiding Principles on Business and Human Rights
- The Equator Principles
- 2022 Principles on Protection of the Environment in Relation to Armed Conflicts
- National water and environmental laws

Further reading

- See Background Note, pp. 33-47.
- IUCN Environmental Law Centre and Geneva Water Hub, Dams. Water Flows in a Fragmented World (IUCN 2021), pp 6-7, 9-10, Annex (pp 19-20)
- UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021), pp 71-72.

Key question

Has the planning State(s) and/or business enterprise(s) met its obligation to consult with potentially affected communities and non-State actors?

Commentary

Obligations on a planning State:

The obligation to consult potentially affected communities and other non-State actors in another riparian State can be seen as an extension of the customary international law due diligence obligation to take all appropriate measures to prevent significant transboundary harm. More generally, 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.

Additional obligations to consult potentially affected communities and other non-States actors may be found within a basin, sub-basin or bilateral treaty, or regional instruments, such as the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice (Aarhus Convention) and the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement).

Development banks place certain requirements on borrowers to consult with potentially affected communities irrespective of their location. For example, the African Development Bank obliges borrowers to conduct and provide evidence of meaningful consultation with communities likely to be affected by any environmental and social impacts (see pp. 39-40).

In accordance with the UN Declaration on the Rights of Indigenous Peoples, where indigenous peoples are potentially affected by the project their Free, Prior and Informed Consent (FPIC) will be required (see p. 34 below).

Obligations on business enterprises:

A requirement to consult potentially affected communities and other non-State actors may also be placed upon business enterprises involved directly in the planning, construction and operation of a project, or any company selling component parts of the project through a range of different instruments. Consultation may form part of the requirements to conduct an environmental impact assessment.

The OECD Guidelines on Multinational Enterprises require companies to engage in adequate and timely communication and consultation with directly affected communities (see p. 43 below).

Where private finance comes from a financial institution that has signed up to the Equator Principles, there will be a requirement to demonstrate effective stakeholder engagement, including use of local languages of project-affected people and use of culturally appropriate ways of engagement, inclusion of vulnerable groups, disclosure of adverse environmental and social impacts, and protection of the rights of indigenous peoples (see pp. 42-43 below).

Hydropower companies following the IHA's sustainability protocol will be required to engage with affected communities and take records of meetings with representatives from governments, transboundary institutions and other key stakeholders, as well as interviews with downstream authorities or community representatives (see pp. 46-47 below).

National legislation may also place requirements on private companies to consult with communities potentially affected by the project.

Project stage

Preparation; implementation; operational and retrofitting, and refurbishment

Laws, standards and guidelines

- River basin, sub-basin, and bilateral treaties (if in force), and associated supplementary instruments
- Regional instruments, such as the Aarhus Convention and Escazú Agreement (if applicable)
- Development Bank Policies and Standards
- Private Bank Policies and Equator Principles
- 2007 UN Declaration on the Rights of Indigenous Peoples
- 1989 ILO Indigenous and Tribal Peoples Convention
- 2022 Principles on Protection of the Environment in Relation to Armed Conflicts
- National water and environmental legislation

Further reading

See Background Note pp 30-31, 34, 39-44.

IUCN Environmental Law Centre and Geneva Water Hub, Dams. Water Flows in a Fragmented World (IUCN 2021), pp 13-14, Annex (pp 27-28, 34-37)

UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021), pp 73-74.

C. Substantive obligations

Key question	Is the project consistent with the principle of equitable and reasonable utilisation?
Commentary	The principle of equitable and reasonable utilisation is widely recognised as customary international law binding upon all States sharing a transboundary river. On a case-by-case basis States will be required to weigh up all relevant factors and circumstances with the aim of optimising the benefits and minimising any likely impacts of a project. A non-exhaustive list of relevant factors and circumstances to take into account are provided for in the 1997 Watercourses Convention - they include physical characteristics, social and economic needs, existing and potential uses and their impacts, and the availability of alternative uses.
Project stage	Preparation; implementation; operational and retrofitting, and refurbishment
Laws, standards and guidelines	• River basin, sub-basin and bilateral treaties (if in force), and associated supplementary instruments • Regional water conventions (if in force) • 1997 Watercourses Convention and 1992 Water Convention (if Party)
Further reading	• See Background Note pp 29-30. • IUCN Environmental Law Centre and Geneva Water Hub, Dams. Water Flows in a Fragmented World (IUCN 2021), pp 7-9. • UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021), pp 19-20.

Key question	Is the project consistent with the due diligence obligation to take all appropriate measures to prevent significant harm?
Commentary	The due diligence obligation to take all appropriate measures to prevent significant transboundary harm is widely recognised as customary international law. States are obliged to adopt best practice in the adoption and application of certain procedural obligations, such as notification and consultation, impact assessments, and stakeholder participation in order to prevent significant harm. Pursuant to the 1992 Water Convention and 1997 Watercourses Convention some level of harm may be tolerated if it can be demonstrated to be equitable and reasonable. Where a project receives World Bank funding, there is a requirement that such projects should not cause 'appreciable harm' to another riparian (see pp. 37-39 below). This might be seen as a stronger requirement than the Watercourse Convention and the Water Convention, where some level of harm may be tolerated if it is consistent with the principle of equitable and reasonable utilisation. The Operational Safeguard Policies of regional banks may also provide such protection. For example, the African Development Bank obliges borrowers to prevent the discharge of pollutants into surface water and groundwater that may result in transboundary impact (OS4) (see pp. 39-40 below).
Project stage	Preparation; implementation; operational and retrofitting, and refurbishment
Laws, standards and guidelines	• River basin, sub-basin and bilateral treaties (if in force), and associated supplementary instruments • Regional water conventions (if in force) • 1997 Watercourses Convention and 1992 Water Convention (if Party) • Development bank operational policies, such as OP7.50 of the World Bank, and OS4 of the African Development Bank
Further reading	• See Background Note pp 29-30. • IUCN Environmental Law Centre and Geneva Water Hub, Dams. Water Flows in a Fragmented World (IUCN 2021), pp 7-9. • UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021), pp 21-22.

Key question

Is the project consistent with the obligation on the planning State(s) to protect ecosystems of a transboundary river?

Commentary

The obligation to protect ecosystems of a transboundary river is reflected in the principle of equitable and reasonable utilisation, and the due diligence obligation to take all appropriate measures to prevent significant transboundary harm.

Through the adoption of river basin, sub-basin, or bilateral treaties; or through commitments within multilateral environmental arrangements, States may have entered into more specific ecosystem requirements, such as establishing ecological or e-flow regimes.

Commitments contained within the UN Framework Convention on Climate Change and Paris Agreement, including strengthening the capacity to adapt to adverse impacts of climate change, enhancing climate resilience, and fostering low greenhouse gas emissions may also apply to hydropower projects.

Additionally, international investment agreements may include legal provisions between the State and investors that may be in conflict with environmental obligations. For example, a host State may have guaranteed a certain level of energy generation, which in subsequent years cannot be achieved due to ecosystem needs. While these agreements must be reviewed on a case-by-case basis, more recent international investment agreements tend to include exemptions on the grounds of a ‘legitimate public welfare objective’, including ‘public health, safety, and the environment' (see pp. 34-37 below).

Where development bank funding is in place, there may also be certain requirements to ensure that a project protects ecosystems. The World Bank, for example, has a set of Environmental and Social Standards, designed to address environmental risks and impacts relating to dam safety, climate change and 'other transboundary or global risks and impacts', natural habitats and biodiversity, ecosystem service and the use of living natural resources, such as fisheries and forests (see pp. 37-39 below).

Project stage

Preparation; implementation; operational and retrofitting, and refurbishment

Laws, standards and guidelines

- River basin, sub-basin and bilateral treaties (if in force), and associated supplementary instruments
- Regional water conventions (if in force)
- 1997 Watercourses Convention and 1992 Water Convention (if Party)
- Multilateral environmental arrangements, such as 1971 Ramsar Convention or 1992 Biodiversity Convention (if Party)
- International investment agreements
- Development Bank Environmental and Social Standards

Further reading

- See Background Note p. 30.
- IUCN Environmental Law Centre and Geneva Water Hub, Dams. Water Flows in a Fragmented World (IUCN 2021), pp 5-9, 13-14, Annex (pp 36-37).
- UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021), pp 23-24.

Key question

Is the project consistent with the obligation to protect substantive human rights?

Commentary

Hydropower projects have the potential to affect the fundamental human rights set out in key instruments such as the Universal Declaration of Human Rights and the International Covenants on Civil and Political Rights, and Economic, Social and Cultural Rights, as well as regional human rights instruments. Human rights such as the rights to housing food, water and sanitation and education may be affected by the resettlement of communities, or due to the changes to a river's ecosystem.

Within the transboundary context, there is a correlation between the principle of equitable and reasonable utilisation and certain human rights commitments. This is reflected in the 1997 Watercourses Convention, which requires States to pay special regard to 'vital human needs', when determining whether uses of an international watercourse are equitable (see p. 33 below). This requirement is complemented by General Comment 15 of International Covenant on Economic, Social and Cultural Rights, which stipulates that, 'State parties have to respect the enjoyment of the right [to safe drinking water] in other countries'.

States may also be obligated to take into account Human Rights commitments concerning a healthy environment. Article 24 of the African Charter on Human and People's Rights, for example, stipulates that, 'all peoples shall have the right to a generally satisfactory environment favourable to their development'.

Both the right to water and the right to the environment can be considered 'extraterritorial', in that a State's actions within its own territory should not impinge on the enjoyment of these rights in another country.

As noted above, pursuant to international instruments such as the Guiding Principles on Business and Human Rights, and the OECD Guidelines on Multinational Enterprises, Business Enterprises are required to protect human rights that may be potentially affected by any hydropower projects that they are involved in.

Project stage

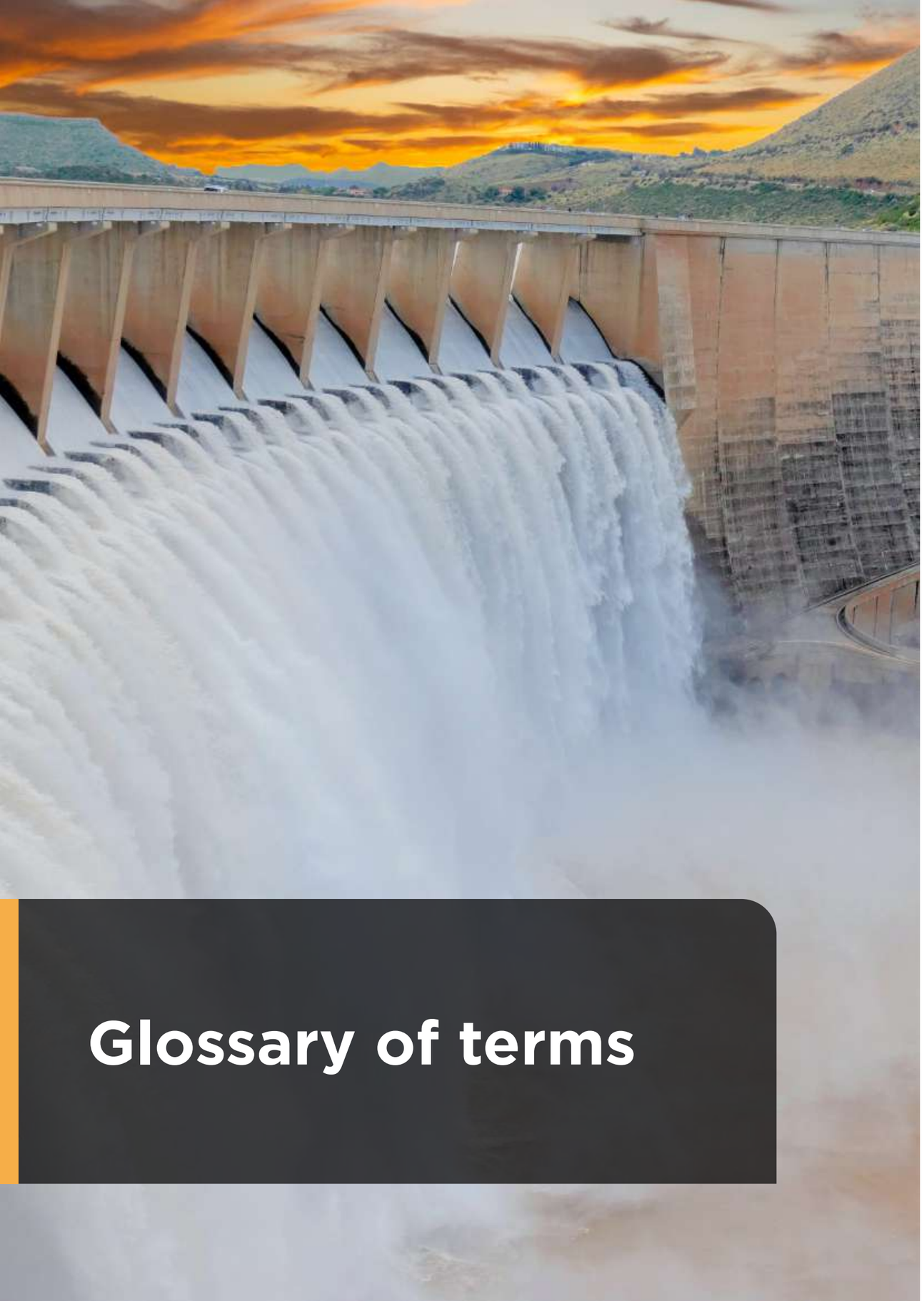
Preparation; implementation; operational and retrofitting, and refurbishment

Laws, standards and guidelines

- River basin, sub-basin and bilateral treaties (if in force), and associated supplementary instruments
- Regional water conventions (if in force)
- 1997 Watercourses Convention and 1992 Water Convention (if Party)
- International investment agreements
- 1948 Universal Declaration of Human Rights
- 1966 International Covenant on Economic, Social and Cultural Rights
- 1966 International Covenant on Civil and Political Rights
- 1969 American Convention on Human Rights
- 1981 African Charter on Human and Peoples' Rights
- 1950 European Convention on Human Rights
- Development Bank Environmental and Social Standards
- Guiding Principles on Business and Human Rights

Further reading

- See Background Note pp 31-34.
- IUCN Environmental Law Centre and Geneva Water Hub, Dams. Water Flows in a Fragmented World (IUCN 2021), pp 10-13, 14-15, Annex (pp 21-33, 38)
- UNECE, Practical Guide for the Development of Agreements and Other Arrangements for Transboundary Water Cooperation (UN 2021), pp 23-24.



Glossary of terms

Appreciable harm: 'appreciable harm' has been described by the International Law Commission (ILC) as embodying a factual standard or harm that can be ascertained by objective evidence.[1] The ILC defines appreciable harm as being, 'a real impairment of use, i.e., a detrimental impact of some consequence upon, for example, public health, industry, property, agriculture, or the environment in the affected State'.[2] Additionally, the ILC considered that 'appreciable' harm is, 'that which is not insignificant or barely detectable but is not necessarily "serious"'.[3]

All appropriate measures: the term 'all appropriate measures' is closely aligned to the due diligence obligation (see below). Pursuant to this due diligence standard, where significant transboundary harm occurs, a State would only be held responsible for that harm if it can be shown that the State did not adopt, 'all appropriate measures' to prevent that harm. What measures might be deemed 'appropriate' will depend on the capacity of the State concerned, as well as the nature and degree of risk.[4] It is also linked with best practice.

Customary international law: Customary international law exists where there is generally widespread and consistent State practice that is followed out of a sense of a legal obligation.[5]

Due diligence obligation: an obligation of conduct rather than result, e.g., an obligation to adopt appropriate measures to prevent significant transboundary harm (see above definition of 'all appropriate measures'). This duty of conduct is measured against good practice, ie., what would the 'reasonable' actions have been in the particular context.

Duty to cooperate: this cardinal rule of international law is found in the UN Charter. The ILC comments that, '[c]ooperation between watercourse States about their utilisation of an international watercourse is an important basis for the attainment and maintenance of an equitable allocation of the uses and benefits of the watercourse and for the smooth functioning of the procedural rules.'[6] Cooperation may take various forms, such as negotiating watercourse arrangements in good faith, entering into consultations, exchanging data and information, establishing joint bodies, or settling disputes in a peaceful manner.[7]

Ecological or e-flow regimes: ecological, environmental or e-flows can be defined as, 'the water regime provided within a river, wetland or coastal zone to maintain ecosystems and their benefits where there are competing water uses and where flows are regulated'.[8]

Equitable and reasonable utilisation: equitable and reasonable utilisation, a cornerstone principle of international law relating to transboundary rivers, affords a right to each riparian State to an equitable and reasonable share in the uses and/or benefits of the river, and establishes the correlative obligation not to deprive other riparian States of their right to an equitable and reasonable share. In so doing, States must weigh up all relevant factors and

1 ILC, Report of the International Law Commission on the work of its fortieth session (9 May-29 July 2988), UN Doc. A/43/10, https://legal.un.org/ilc/publications/yearbooks/english/ilc_1988_v2_p2.pdf, at 36.
2 Ibid.
3 Ibid.
4 See UNECE, Guide to Implementing the Water Convention, UN Doc. ECE/MP.WAT/39, at 11.
5 See C Greenwood, 'Sources of International Law: An Introduction', https://legal.un.org/avl/pdf/ls/greenwood_outline.pdf, at 1-2.
6 ILC, Report of the International Law Commission on the work of its forty-sixth session (2 May – 22 July 1994), UN Doc. A/49/10, https://legal.un.org/ilc/documentation/english/reports/a_49_10.pdf, at 105.
7 See UNECE, Guide to Implementing the Water Convention, UN Doc. ECE/MP.WAT/39, at 32.
8 M Dyson, G Bergkamp, and J Scanlon (eds), Flow – The essentials of environmental flows (2nd edn, Gland, IUCN), at 17.

circumstances with a view to attaining optimal and sustainable utilisation of a shared river, whilst ensuring for its adequate protection. As no two river basins are the same, such a weighing of factors and circumstances must be done on a case-by-case basis.[9]

Free, Prior and Informed Consent (FPIC): as set out in the Declaration on the Rights of Indigenous Peoples, FPIC requires consultation and good faith cooperation with indigenous peoples before adopting plans that may affect them. Such consultation and cooperation must be free from coercion, intimidation and manipulation, and must be sought sufficiently in advance of any authorisation or commencement of activities.[10] Additionally, the engagement and type of information that should be provided prior to seeking consent should be sufficient to provide informed consent, which in turn should be a collective decision by right holders and reached though customary decision-making processes of the communities.[11]

International investment agreements (IIAs): IIAs are a type of international treaty that address issues related to cross-border investments, including their protection and promotion, and matters concerning liberalisation. These agreements are entered into by States, usually at the bilaterally level, with the aim of promoting trade and investment, whilst protecting the foreign investors.

Notification and consultation: notification refers to the procedures whereby a riparian State planning a project informs other riparian States of their plans or of any emergency situations. Where the planned measure might cause transboundary harm, there is a customary rule requiring notification. In the case of planned measures, notification is usually accompanied with information pertaining to the project. For emergency or critical situations, States are obliged to notify potentially affected riparian States of any potential harm. These events may be caused by both natural phenomena or human conduct and may be the result of either sudden or cumulative events. Consultation relates to the process by which States exchange views on any planned project, and in particular whether or not the project, in its current or revised form, is likely to be in compliance with any legal commitments under the applicable international law.

Significant transboundary harm: the term 'significant', according to the ILC, 'is not without ambiguity and a determination has to be made in each specific case' through measurable factual and objectives standards.[12] The ILC define 'significant' as, 'something more than "detectable" but need not be at the level of "serious" or "substantial", and 'the harm must lead to a real detrimental effect on matters such as, for example, human health, industry, property, environment or agriculture in other States'.[13] The threshold of 'significant' can therefore be seen as comparable to that of 'appreciable' (see above), although significant was considered to be more precise by the ILC. [14]

Significant adverse transboundary impact: significant adverse transboundary impact is considered to be a lower threshold than, 'significant transboundary harm' (see above), and therefore relates to a wider set of potential impacts, which may or may not result in significant transboundary harm.[15]

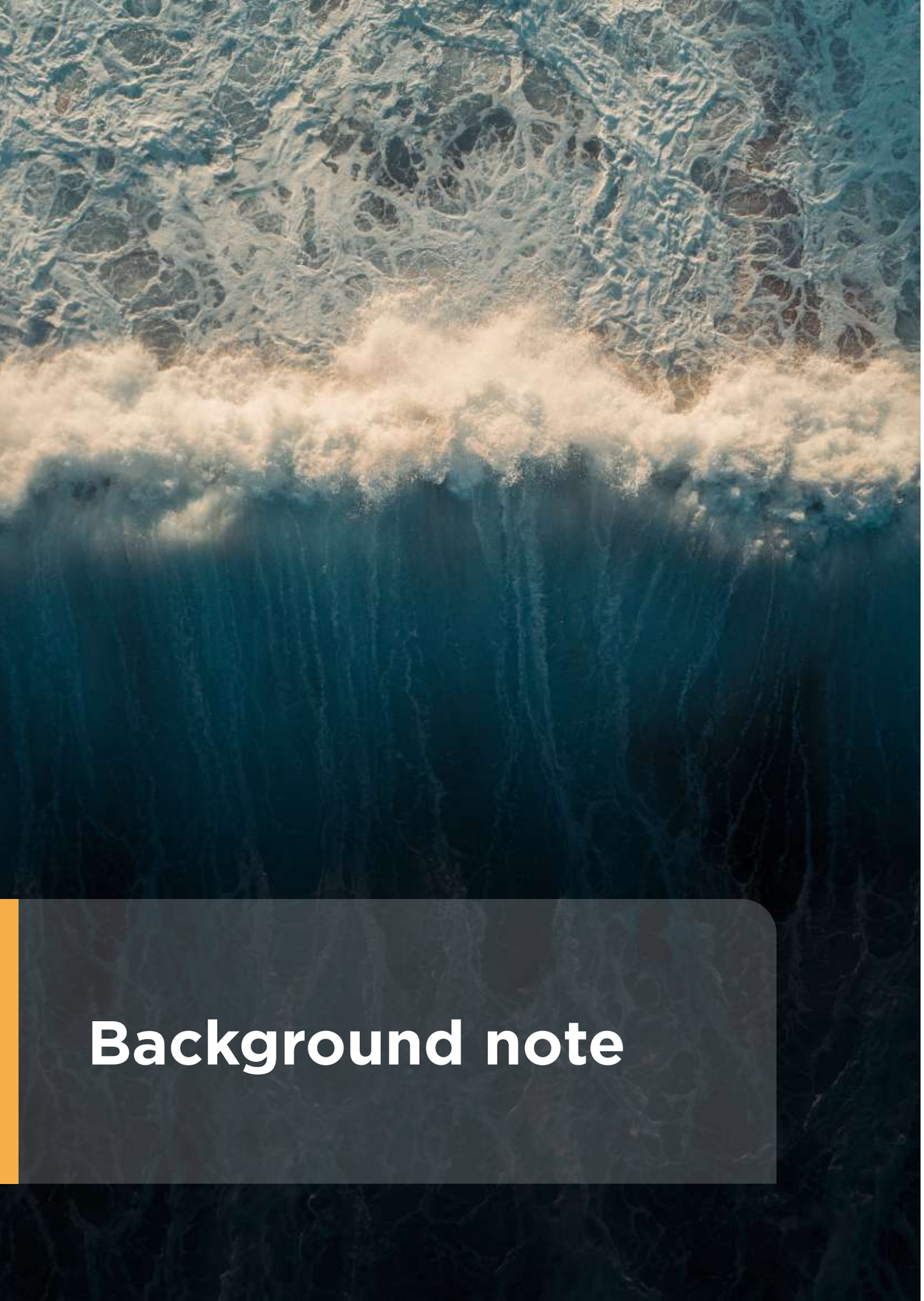
Transboundary impact: defined in the Water Convention as, 'any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party, within an area under the jurisdiction of another Party. Such effects on the environment include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; they also include effects on the cultural heritage or social-economic conditions resulting from alterations to those factors'.[16]

Transboundary hydropower projects: hydropower projects that are situated within river basins shared by two or more countries, ie., transboundary river basin. These projects may be situated on either the mainstream or tributaries of a transboundary basin and may be entirely situated within the territory of one country or span the border between two or more countries.

Vital human needs: 'vital human needs' are defined as, 'sufficient water to sustain human life, including both drinking water and water required for production of food in order to prevent starvation'.[17]

9 A Rieu-Clarke, R Moynihan and B Magsig, UN Watercourses Convention – User's Guide, https://www.gwp.org/globalassets/global/our-approach/strategic-allies/users-guide-to-the-un-watercourses-convention-2012.pdf at 101-116.
10 FAO, Free Prior and Informed Consent – An indigenous peoples' right and a good practice for local communities, https://www.fao.org/3/i6190e/i6190e.pdf.
11 Ibid.
12 Ibid.
13 Ibid.
14 See UNECE, Guide to Implementing the Water Convention, UN Doc. ECE/MP.WAT/39, at 11.
15 Ibid, at 111.
16 Article 1(2), Water Convention.
17 UN General Assembly, Convention on the Law of the Non-navigational Uses of International Watercourses – Report of the Sixth Committee convening as the Working Group of the Whole, UN Doc. A/51/869, https://www.un.org/ga/search/view_doc.asp?symbol=A/51/869, at 5.





Background note

International laws, policies and standards applicable to hydropower projects on transboundary rivers

International water law

States have concluded over 1,600 agreements relating to transboundary rivers.[18] While most of these agreements focus on navigation, a subset of around 400 agreements signed since 1820 relate to the non- navigational uses of transboundary rivers.[19] In recent years, these agreements have shifted away from a focus on single uses to a broader focus that supports the principles of integrated water resources management.[20] While there has therefore been positive trends in treaty making on transboundary rivers, significant gaps remain. For instance, only 24 countries out of the 153 countries sharing transboundary waters have operational arrangements for transboundary water cooperation in place for all their shared waters.[21]

Rules and principles related to transboundary rivers derive from both customary law and agreements at the global, regional, and basin-specific level. At the global level, the most relevant instruments are the Convention on the Law of the Non-navigational Uses of International Watercourses (Watercourses Convention), which was adopted in 1997 and entered into force in 2014; and Convention on the Protection and Use of Transboundary Rivers and International Lakes (Water Convention), adopted in 1992, entered into force in 1996, and opened for membership to all UN Member States in 2016.[22] There are currently 38 Parties to the Watercourses Convention and 52 Parties to the Water Convention. Countries party to one or both Conventions must comply with the rules and principles contained therein, while other countries may be required to comply with certain rules and principles contained within the Conventions given their status as customary international law. Countries may also be obliged to comply with the rules and principles set out in regional agreements, such as the Revised Protocol on Shared Watercourses in the Southern African Development Community (SADC), adopted in 2000, and entered into force in 2003, and the Convention for the Protection and Peaceful Resolution of Conflicts Concerning the Management of Shared Water in Central Africa, adopted in 2020.[23] Other non-water specific regional conventions may apply to transboundary hydropower projects, such as the African Convention on the Conservation of Nature and Natural Resources, as revised in 2003. Its definition of natural resources explicitly includes water,[24] and its main objectives are to 'enhance environmental protection', 'foster the conservation and sustainable use of natural resources'; and 'harmonize and coordinate policies in these fields'.[25] Article VII of the Convention requires States to 'manage their water resources so as to maintain them at the highest possible quantitative and qualitative levels'.[26] States must, inter alia, 'prevent excessive abstraction, to the benefit of downstream communities and States'; 'endeavour to guarantee for their populations a sufficient and continuous supply of suitable water', and ensure 'the co-ordination and planning of water resources development projects'.[27] At the

18 Stephen C. McCaffrey, 'The Evolution of International Law Relating to Transboundary Waters', in Alistair Rieu-Clarke, Andrew Allan and Sarah Hendry (eds), Routledge Handbook of Water Law and Policy (Routledge 2017), 205.

19 Mark A. Giordano and Aaron T. Wolf, 'The World's International Freshwater Agreements: Historical Developments and Future Opportunities', in UNEP, Oregon State University and FAO, Atlas of International Freshwater Agreements (UNEP 2002), 6.

20 Ariel Dinar, et. al., Bridges Over Water: Understanding Transboundary Water Conflict, Negotiation and Cooperation (World Scientific 2007), 58-60.

21 UNECE and UNESCO, Progress on Transboundary Water Cooperation: global status of SDG indicator 6.5.2 and acceleration needs, 2021, https://www.unwater.org/publications/progress-transboundary-water-cooperation-2021-update. SDG indicator 6.5.2 considers an arrangement for transboundary water cooperation operational if a joint body is established, there are at least annual meetings between countries, as well as data exchange, and joint or co-ordinated management plans, joint objectives or similar have been adopted.

22 See Convention on the Law of the Non-navigational Uses of International Watercourses, https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-12&chapter=27&clang=_en; and Convention on the Protection and Use of Transboundary Watercourses and International Lakes, https://unece.org/environment-policy/water/about-the-convention/introduction. More generally, see Alistair Rieu-Clarke, Ruby Moynihan and Bjørn-Oliver Magsig, UN Watercourses Convention – User's Guide, https://www.gwp.org/globalassets/global/our-approach/strategic-allies/users-guide-to-the-un-watercourses-convention-2012.pdf; and UNECE, Guide to Implementing the Water Convention, UN Doc. ECE/MP.WAT/39, September 2013, https://unece.org/environment-policy/publications/guide-implementing-water-convention.

23 See Revised Protocol on Shared Watercourses in SADC, https://unece.org/environment-policy/publications/guide-implementing-water-convention.

24 African Convention on the Conservation of Nature and Natural Resources (Revised), Article V.

25 Ibid, Article II.

26 Ibid.

27 Ibid, Article VII.

basin level, countries may have entered into basin-wide arrangements and/or entered into agreements at a sub-basin or bilateral level. A complex web of legal arrangements at global, regional, basin, and sub-basin levels may therefore apply to a particular transboundary river - although there are likely to be a lot of commonalities in the rules and principles contained within these instruments.

In relation to the substantive norms, the primary norm of customary international law relating to transboundary waters, as reflected in most watercourse treaties, is the principle of equitable and reasonable utilisation. As set out in the 1997 Watercourses Convention, 'Watercourse States shall in their respective territories utilise an international watercourse in an equitable and reasonable manner'.[28] In so doing, countries must account for all relevant factors and circumstances, with a view to maximising the benefits whilst minimising impacts, and ensuring for an adequate protection of a transboundary river basin.[29] Data exchange, including a transboundary environmental impact assessment, as discussed below, will be an important basis upon which countries and other stakeholders involved in a particular hydropower project on a transboundary river assess all relevant factors and make a determination on what is equitable and reasonable.

Closely associated with the principle of equitable and reasonable utilisation, is the due diligence rule that countries adopt 'all appropriate measures to prevent significant harm' (the so-called 'no harm principle').[30] While equitable and reasonable utilisation is the guiding substantive principle of international law relating to transboundary rivers, many global and regional agreements, as well as many basin-specific agreements also include the no harm principle. 'Harm' in this context relates to all cultural, economic, environmental or social harm, and 'significant harm' relates to something that is more than trivial.[31] In obliging countries to take 'appropriate measures' to prevent harm, this principle is considered a due diligence obligation of conduct rather than result, and thus the norm is evaluated against good practice in light of the context. The question is therefore not primarily whether significant harm occurred, but whether the appropriate measures were in place to prevent that harm. As is the case in relation to equitable and reasonable utilisation, conducting an environmental impact assessment, is a key 'appropriate measure' to prevent significant harm.[32] The Water Convention also provides a list of appropriate measures to prevent harm, or in the words of the Convention 'transboundary impact' - although appropriateness may vary depending on the particular context.[33]

Another substantive norm that has gained recognition in agreements relating to transboundary rivers is the principle of ecosystem protection.[34] Article 20 of the 1997 Watercourse Convention obliges watercourse States to, 'individually and, where appropriate, jointly, protect and preserve the ecosystems of international watercourses.'[35] In some respects, this obligation is part and parcel of the principle of equitable and reasonable utilisation and the requirement for 'adequate protection of the watercourse'.[36] However, agreements relating to transboundary rivers may contain more specific requirements to protect ecosystems. For example, the 2019 Agreement between Mozambique and Zimbabwe on Cooperation on the Development, Management and Sustainable Utilisation of the Water Resources of the Buzi Watercourse, establishes criteria for the flow regime of the Buzi river, which includes, 'the need to ensure water of sufficient quantity with acceptable water quality to sustain the watercourse and its associated ecosystems'. Similarly, in the Kishenganga Arbitration, the Court of Arbitration considered the need to interpret the 1960 Indus Treaty, 'in light of the customary international principles for the protection of the environment in force today'.[37] This led the Court to recognise that hydropower projects should ensure 'a minimum environmental flow' downstream of the project.[38] Thus evolving best practice was taken on board despite this not being covered expressly in the Indus Treaty itself.

Certain sites potentially affected by a project may also be afforded specific protection under international environmental law, such as the commitments contained in the 1971 Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, and the 1971 Convention Concerning the Protection of the World Cultural and Natural Heritage, or more generally through environmental commitments contained within multilateral environmental agreements at a global level, such as the 1992 Convention on Biological Diversity, the 1992 UN Framework Convention on Climate Change and the 1994 UN Convention to Combat Desertification, or regional level, such as the 1968 African Convention on the Conservation of Nature and Natural Resources or the 2018 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean.[39]

In addition to the substantive norms, customary international law and many agreements on transboundary waters contain procedural requirements, including the duty to cooperate, to exchange data and information, to notify and consult, and to settle disputes in a peaceful manner. The duty to cooperate in good faith provides an overarching framework under which these procedural requirements exist, and more generally requires countries to negotiate in good faith.[40] A critical requirement related to hydropower projects on transboundary rivers is the duty to notify and consult on planned measures, which as noted above, may extend to conducting and sharing the results of an environmental impact assessment. Notification may also be required in the case of emergency or critical situations. The 1997 Watercourses Convention contains detailed steps relating to notification and consultation, where there is a risk of a planned measure causing a significant adverse effect.[41] Any applicable basin-specific agreement may also include similar procedures, and in some instances, a river basin organisation may have developed its own notification and consultation procedures.[42]

'Emergency' or 'critical situations' refer to natural events, such as floods, droughts, ice drifts or earthquakes, and human conduct, such as industrial accidents and sabotage of installations, that may

28 Supra note 22.
29 See Article 6 of the Watercourses Convention for a list of factors, and Patricia Wouters, et. al., Sharing Transboundary Waters – An Integrated Assessment of Equitable Entitlement, https://unesdoc.unesco.org/ark:/48223/pf0000139794.
30 See Article 7 of the Watercourses Convention, supra note 22.
31 See Alistair Rieu-Clarke, Ruby Moynihan and Bjørn-Oliver Magsig, UN Watercourses Convention – User's Guide, https://www.gwp.org/globalassets/global/our-approach/strategic-allies/users-guide-to-the-un-watercourses-convention-2012.pdf, at 117-122.
32 The International Court of Justice has observed that, 'to fulfil its obligation to exercise due diligence in preventing significant transboundary environmental harm, a State must, before embarking on an activity having the potential adversely to affect the environment of another State, ascertain if there is a risk of significant transboundary harm, which would trigger the requirement to carry out an environmental impact assessment' (ICJ, Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v. Costa Rica), Judgement of 16 December 2015, https://www.icj-cij.org/case/150, para. 104.
33 See Article 3 of the Water Convention, and UNECE, Guide to Implementing the Water Convention, UN Doc. ECE/MP.WAT/39, September 2013, https://unece.org/environment-policy/publications/guide-implementing-water-convention, at pp. 19-31.
34 See generally, Owen McIntyre, 'Protection of Freshwater Ecosystems Revisited: Towards a Common Understanding of the 'Ecosystems Approach' to the Protection of Transboundary Water Resources', 23(1) Review of European Community & International Environmental Law 88 (2014).
35 Supra note 22.
36 Article 5(1) of the Watercourses Convention, supra note 22.
37 PCA, In the Matter of the Indus Waters Kishenganga Arbitration (Pakistan and India), 18 February 2013, https://pca-cpa.org/en/cases/20/, para. 452.
38 Ibid, paras. 453-454.
39 See generally, Sabine Brels, David Coates and Flavia Loures, Transboundary Water Resources Management: The Role of International Watercourse Agreements in Implementation of the CBD, CBD Technical Series No. 40, https://www.cbd.int/doc/publications/cbd-ts-40-en.pdf.
40 See generally, Christina Leb, Cooperation in the Law of Transboundary Water Resources (Cambridge University Press 2013).
41 See Part III 'Planned Measures' of the 1997 Watercourses Convention, supra note 22.
42 See for example the Zambezi Watercourse Commission, Procedures for Notification of Planned Measures, 2017, https://zambezicommission.org/sites/default/files/clusters_pdfs/ZAMCOM-Procedures-for-Notification-of-Planned-Measures.pdf; the Permanent Okavango River Basin Water Commission (OKACOM), OKACOM Notification, Consultation and Negotiation Guidelines 2018, https://www.okacom.org/sites/default/files/publications/OKACOM%20Notification%20Consultation%20Guidelines.pdf.

have a transboundary impact.[43] As well as the obligation to notify, provisions may be included within transboundary water agreements that oblige countries to develop joint contingency plans, including detailed early warning systems and co-ordinated response measures.[44]

Countries are obliged, in accordance with the Charter of the United Nations, to settle their disputes in a peaceful manner. Agreements on transboundary waters may vary in terms of the procedures for dispute settlement. For instance, the 1994 Agreement between the Governments of Angola, Botswana and Namibia on the establishment of a Permanent Okavango River Basin Water Commission (OKACOM) simply states that, 'any dispute as to the interpretation or implementation of any Article of this Agreement shall be settled by the Contracting Parties'.[45] The 2003 Convention on the Sustainable Management of Lake Tanganyika provides more detail by obliging the contracting parties concerned to notify the basin authority of any dispute, and to seek a solution through negotiation.[46] Where negotiation proves ineffective, the contracting parties then have the options to involve a third party, e.g. good offices or mediation, submit the dispute to impartial fact-finding, and /or submit the dispute to arbitration.[47]

International human rights law

Hydropower projects clearly have the potential to affect individuals and communities, which means that certain human rights may come into play. An added complexity is the transboundary nature of these projects which means that actions in one country may affect human rights of individuals and communities within another country.

Several treaties recognise the importance of a human right to water.[48] However, the most explicit reference to the right to water is contained in interpretative guidance to the International Covenant on Economic, Social and Cultural Rights (ICESCR).[49] General Comment 15, adopted by the Committee on Economic, Social and Cultural Rights on 20 January 2003, states that, the human right to water 'entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses'.[50] Both the UN General Assembly and the Human Rights Council, together with the Special Rapporteur on the human right to safe drinking water and sanitation, have since embraced the Committee's interpretation of the ICESCR.[51]

The lack of an explicit reference to water within a human rights convention does not therefore mean that such a right is not protected. For example, the African Charter on Human and Peoples' Rights (Banjul Charter) lacks an explicit reference to the human right to water. However, in 2001, the African Commission on Human and Peoples' Rights (African Commission) held Nigeria responsible, inter alia, for participating in irresponsible oil development that poisoned much of the water upon which traditional Ogoni farming and fishing depended. This ruling was based on Articles 16 and 24 of the Banjul Charter, which stipulate the individual's right to enjoy the best attainable state of physical and mental health, and the right of all peoples to a generally satisfactory environment favourable to their development. The Commission noted in particular:

> Government compliance with the spirit of Articles 16 and 24 of the African Charter must also include ordering or at least permitting independent scientific monitoring of threatened environments, requiring and publicising environmental and social impact studies prior to any major industrial development, undertaking appropriate monitoring and providing information to those communities exposed to hazardous materials and activities and providing meaningful opportunities for individuals to be heard and to participate in the development decisions affecting their communities.[52]

The Commission went on to provide that, 'Governments have a duty to protect their citizens, not only through appropriate legislation and effective enforcement but also by protecting them from damaging acts that may be perpetrated by private parties'.[53]

The above-mentioned references to a human right to water do not refer explicitly to the effects hydropower projects on transboundary rivers might have on the enjoyment of this right. These effects could be both positive and negative. In general, many of the references primarily seek to remind countries that vulnerable people need special care to ensure that their human right of access to safe, sufficient, and uncontaminated drinking water is assured. When undertaking a hydropower project on a transboundary river, such 'traditional' water needs and uses thus need to be taken into account.

When the human right to water is applied in the context of hydropower projects on transboundary rivers, its extraterritorial application is of particular importance. Can a country, by allowing the construction of a hydropower project on its side of the border, breach the human right to water of individuals residing on the other side of the border? Generally, a country is only responsible for human rights protection within its own territory, but there are exceptions. In its General Comment 15, the CESCR made it clear that 'States parties have to respect the enjoyment of the right in other countries', and 'international cooperation requires States parties to refrain from actions that interfere, directly or indirectly, with the enjoyment of the right to water in other countries.'[54] States therefore have to account for how their actions might affect the enjoyment of the right to water in other countries.

This transboundary aspect of the right to water is reflected in the Watercourses Convention. Article 10 of the Convention provides that, 'in the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses'.[55] However, Article 10 goes on to stipulate that, 'in the event of a conflict between uses of an international watercourse', 'special regard' will be afforded to 'vital human needs.'[56] Within this context, 'vital human needs' encompass 'providing sufficient water to sustain human life, including both drinking water and water required for production of food in order to prevent starvation'.[57]

43 See generally, UNECE, Practical Guide for the Development of Agreements or other Arrangements for Transboundary Water Cooperation, UN Doc. ECE/MP.WAT/68, https://unece.org/environment-policy/publications/agreements-transboundary-water-cooperation-practical-guide.
44 Ibid.
45 Art. 7(4), OKACOM Agreement, https://www.ecolex.org/details/treaty/agreement-between-the-governments-of-angola-the-republic-of-botswana-and-the-republic-of-namibia-on-the-establishment-of-a-permanent-okavango-river-basin-water-commission-okacom-tre-001851/.
46 Art. 14, Convention on the Sustainable Management of Lake Tanganyika, https://www.fao.org/faolex/results/details/en/c/LEX-FAOC045450/.
47 Ibid, Art. 29.
48 See for example, 14(2) of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), Article 24 of the UN Convention on the Rights of the Child (CRC), and Article 28 of the Convention on the Rights of Persons with Disabilities (CRPD).
49 International Covenant on Economic, Social and Cultural Rights (ICESCR), https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights.
50 CESCR, General Comment No. 15, The right to water (arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights), https://digitallibrary.un.org/record/486454?ln=en. The Committee on Economic, Social and Cultural Rights (CESCR), the independent body of experts elected by States to interpret and monitor compliance with the International Covenant on Economic, Social and Cultural Rights (ICESCR).
51 See UN General Assembly Resolution, The human right to water and sanitation, (2010), UN Doc. A/RES/64/292; Human rights and access to safe drinking water and sanitation, (2010), UN Doc. A/HRC/RES/15/9; and Catarina de Albuquerque, Promotion and Protection of All Human Rights, UN Doc.. A/HRC/12/24 (2009), at 33–37.
52 African Commission, The Social and Economic Rights Action Center (SERAC) and the Center for Economic and Social Rights v. Nigeria, October 2001, para. 53.
53 Ibid, para. 57.
54 CESCR General Comment 15, supra note 50, para. 31.
55 Watercourses Convention, supra note 22.
56 Ibid.
57 UN, Convention on The Law of The Non-Navigational Uses of International Watercourses: Report of the Sixth Committee, 11 April 1997, UN Doc. A/51/869, at 4.

Read together with the internationally recognized human right to water, this certainly establishes a presumption that satisfying vital human needs takes priority over all other uses of the watercourse.[58] While limited, there are also examples of water treaties that make explicit reference to the right to water, such as the 2008 Water Charter of the Niger Basin and the 2002 Senegal Water Charter.[59]

While the right to water safeguards a certain quantity and quality of water for individual needs, it also requires a procedural element. The CESCR for instance states that:

> The right of individuals and groups to participate in decision-making processes that may affect their exercise of the right to water must be an integral part of any policy, program or strategy concerning water. Individuals and groups should be given full and equal access to information concerning water, water services and the environment, held by public authorities or third parties.[60]

Similarly, the Human Rights Council called upon States to ensure 'the active, free and meaningful participation of the concerned local communities and relevant stakeholders' in the provision of safe drinking water.[61] The right to be informed, and participate in the design and operation of projects, such as transboundary hydropower projects, is thus firmly established, and has a basis in a successful cross- fertilization between the human right to water and general principles of international water law.

There is also emerging support for the human right to a safe, clean, healthy, and sustainable environment. For instance, Article 24 of the 1981 African Charter on Human and People's Rights stipulates that, 'all peoples shall have the right to a general satisfactory environment favourable to their development'.[62] As with the right to safe drinking water and sanitation, the right to a safe, clean, healthy and sustainable environment, can be derived from other human rights concerning life, health, adequate standard of living, food, housing and development. The Special Rapporteur on the right to a healthy environment has set out a set of principles, related to the right that would include a due diligence obligation on States to refrain from causing or allowing environmental harm; to protect against harmful interference from other sources, such as business enterprises and other private actors; and, to take effective steps to ensure the conservation and sustainable use of the ecosystems and biodiversity on which the full enjoyment of human rights depends.[63]

Another key area of human rights law relates to indigenous people's rights. The UN Declaration on the Rights of Indigenous Peoples stipulates that States have an obligation to obtain Free, Prior and Informed Consent (FPIC) of indigenous peoples before adopting certain measures that may affect them, which would include hydropower projects.[64] Indigenous people's rights are further protected in the International Labour Organisations Convention 169, concerning Indigenous and Tribal Peoples.[65] FPIC requires consultation and good faith cooperation with indigenous peoples before adopting plans that may affect them. Such consultation and cooperation must be free from coercion, intimidation and manipulation, and must be sought sufficiently in advance of any authorisation or commencement of activities.[66] Additionally, the engagement and type of information that should be provided prior to seeking consent should be sufficient to provide informed consent, which in turn should be a collective decision by right holders and reached though customary decision-making processes of the communities.[67]

58 See also Owen McIntyre and Mara Tignino, 'Reconciling the UN Watercourses Convention and Recent Developments in International Law' in Flavia Rocha Loures and Alistair Rieu-Clarke (eds), The UN Watercourses Convention in Force: Strengthening International Law for Transboundary Water Governance (Earthscan / Taylor & Francis, 2013), at 295.

59 See generally, Takele S Bulto, The Extraterritorial Application of the Human Right to Water in Africa (Cambridge University Press 2013); Christina Leb, 'The right to water in a transboundary context: emergence of seminal trends', (2012) 37(6) Water International 640.

60 Supra note 50. See also SDG target 6.b, which calls for States to 'support and strengthen the participation of local communities in improving water [...] management.'

61 UN Human Rights Council Resolution, Human rights and access to safe drinking water and sanitation, (2010), UN Doc. A/HRC/RES/15/9, para 8(b).

62 Africa Charter on Human and Peoples Rights, https://au.int/en/treaties/african-charter-human-and-peoples-rights.

63 Framework Principles on Human Rights and the Environment, https://documents-dds-ny.un.org/doc/UNDOC/GEN/G18/017/42/PDF/G1801742.pdf?OpenElement.

64 UN General Assembly Resolution, United Nations Declaration on the Rights of Indigenous Peoples, 13 September 2007, UN Doc. A/RES/61/295.

65 ILO, Convention No. 169 – Indigenous and Tribal Peoples Convention, https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C169.

66 UN, Free Prior and Informed Consent – An indigenous peoples' right and a good practice for local communities, https://www.fao.org/3/i6190e/i6190e.pdf.

67 Ibid.

International investment law

Foreign investment is a key feature of many transboundary hydropower projects and is more generally seen as an important means by which to address the global infrastructure gap. Public-private partnerships (PPPs) have become a common model by which to plan, construct and operate hydropower projects on transboundary rivers.[68] These PPPs may cover, i) services at a preparatory phase, i.e., from initial design to the construction-ready; ii) the building or rehabilitation of a project; iii) finance for all or part of the necessary capital expenditure; iv) maintenance of the project over a specific period of time; and v) the operation of the hydropower project.[69] 'Sovereign guarantees' are often used by States to attract foreign investment, whereby host governments assure lenders that they will take or refrain from certain actions that may affect a project and its profitability.

Where foreign companies are involved in the development of hydropower projects, international investment law must be considered. International investment law consists of layers of rules of public international law, international economic law, and rules specific to the protection of foreign investors from various forms of State action that may interfere with their investment.[70] The main sources of international investment law are international investment agreements (IIAs);[71] customary international law;[72] and principles of international law. Typically, an IIA includes provisions on definitions and scope, non-discrimination, basic treatment (fair and equitable treatment, full protection and security), expropriation with compensation, and regulations on transfers. As regards dispute settlement mechanisms most IIAs provide for investor – State arbitration, where the host-State gives its consent to arbitrate any dispute brought by the foreign investor under the IIA. Several governments include Investor-State Dispute Settlement (ISDS) in the contracts signed with hydropower companies and infrastructure developers, and many others include ISDS in their foreign investment domestic laws (e.g., Burundi Investment Code 2008; Cabo Verde External Investment Code 1993).

There are clear linkages between international investment law and transboundary hydropower projects. For instance, host States may consent to international treaty arbitration brought directly by foreign investors. Investor-State dispute settlement (ISDS) mechanisms can also be included in infrastructure contracts and in domestic law. Additionally, transboundary treaty commitments may be at variance with Investment-State arrangements. For example, the terms of an IIA may run contrary to a State's desire to make changes to the design or operation of a hydropower scheme, e.g. to increase water flows to satisfy

68 See generally, Richard Kyle Paisley, et. al., Transboundary Waters, Infrastructure Development and Public Private Partnership: through the prism of the Nam Thuen 2 and Xayaburi Hydropower Projects (Brill 2017). 'PPPs' can be defined as, 'a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance', https://ppp.worldbank.org/public-private-partnership/overview/what-are-public-private-partnerships.

69 Ibid.

70 R Dolzer and C Schreuer, Principles of International Investment Law (2nd edn: Oxford University Press, 2012), 3.

71 The term international investment agreements encapsulates Bilateral and Multilateral Investment Treaties (e.g. Energy Charter Treaty, China-Japan- Republic of Korea Trilateral Investment Agreement), Free Trade and International Taxation Agreements with investment chapters.

72 Standards of investment protection such as expropriation, fair and equitable treatment, most favoured nation treatment originate and develop from customary international law. Several of them are still interpreted with reference to customary international law, e.g., fair and equitable treatment standard is qualified with reference to the minimum standard of treatment in customary international law.

downstream environmental interests at the expense of upstream revenue from hydropower generation.

In recent years many States have sought to conclude (or re-negotiate) a new generation of IIAs that reflect a host State's need to protect its regulatory freedom to address environmental, social and security challenges.[73] Not all countries have engaged in the renegotiation or modernization of their IIAs, which means that they may still be bound by broad standards of protection embedded in the older generation of IIAs. Against this backdrop, this section discusses two themes relating to hydropower projects; i) environmental and social safeguards in relation to IIAs; and ii) regulatory hurdles in dealing with the need for adaptive water resources management.

A question that arises in relation to foreign investment in transboundary hydropower projects is what take precedence: environmental and social safeguards found in State legislation, or the contractual relationship between a host State and a foreign investor? This question will be particularly pertinent where a State risks breaching its IIA obligations to a foreign investor as a consequence of its desire to address emerging concerns about a hydropower project, such as a need to protect the environment or to sustain the wellbeing and livelihoods of local communities. An added complication is that these concerns, particularly within the context of climate change, may have been poorly understood at the time in which the IIA was entered into. However, arbitral tribunals deciding investment cases tend to be deferent to State claims concerning the need to protect societal values as a defence to a breach of its commitments under an IIA.[74]

IIAs concluded between the 1990s and 2000s did not include specific provisions restricting the scope of investor protection. This did not always mean that States could not adopt regulatory measures at variance with obligations under an IIA. For example, under the police power doctrine no compensation would be due to an investor where a State could show that it was acting to protect the public interest, and its actions were bona fide, non-discriminatory and proportionate. However, the precise scope of the police powers doctrine is hotly debated.[75] Since the 2000s recurrent environmental, social and security challenges have pushed for the revision and recalibration of IIAs in order to 'place inclusive growth and sustainable development at the heart of efforts to attract and benefit from investment.'[76] These provisions are best studied on a case-by-case basis. By way of an example, in 2004 and 2012 the United States approved new bilateral investment treaty (BIT) models that explicitly include 'public health, safety, and the environment' as 'legitimate public welfare objectives' that may under limited circumstances justify a State's expropriation of a foreign investor's property.[77] Beginning in 2010, States have gone further by including sustainable development oriented provisions;[78] references to corporate social responsibility;[79] and general and security exceptions (Articles XX and XXI GATT type), such as for the protection of human, animal or plant life or health, or the conservation of exhaustible natural resources, and essential security interests in their IIAs.[80] Notably, discussion on the modernisation of the Energy Charter Treaty (ECT), includes some of the issues mentioned above.[81] Domestic law is also relevant within this context. Some IIAs require investors to comply with the domestic regulation of the host State when establishing the investment. Moreover, compliance with domestic law might be stipulated as a condition that must be satisfied in order to benefit from any protection afforded under an IIA.

Adaptive regulation adopted to deal with water resources management and resilience, as well as conflicts between communities and investors, social unrest due to displacement, loss of livelihoods, and human rights violations in the hydropower sector, could potentially trigger arbitration claims against host States under IIAs. For instance, investors may have to cancel or suspend a hydropower project on a transboundary river due to unforeseen regulatory hurdles, such as more demanding environmental standards. These hurdles may substantially reduce a project's profitability, or even effectively make a project unviable. Also relevant in this context are newly adopted agreements on transboundary rivers, which may place additional requirements on the planning, construction and operation of hydropower projects. There is a risk that such situations may lead to disputes between investors and host States.

IIA provisions may also restrict a State's ability to enhance their domestic environmental and social standards due to a fear of breaching an IIA or facing international arbitration. This phenomenon is known as 'regulatory chill'. Arbitral tribunals are no strangers to disputes arising out of infrastructure projects linked, for example, to the human right to water,[82] local communities' competition for natural resources,[83] and environmental concerns.[84] Currently there exist a number of international arbitrations – commercial and investment - disputes arising in the context of hydropower projects;[85] most of the disputes originate in disagreements linked to the operation of the contracts. For example, Latam Hydro brought a case against Peru for the termination of a 20MW run of the river hydropower project, which had to be abandoned due to the opposition of local communities, delays in the permitting process, and disagreements with the local government.[86] In a mining dispute, Bear Creek v Peru, the tribunal was sympathetic to the fact that the investor could have reached out to the communities more than it did in order to obtain a social license from all the communities potentially affected.[87] However, Peru was aware of the level of engagement the investor undertook, and did not object to it.[88] Conversely, the dissenting arbitrator opined that investors do have a role in seeking the trust of local communities. The dissenting arbitrator argued that International Labour Organization (ILO) Convention 169, concerning Indigenous and Tribal Peoples, which was applicable to the territory of Peru at the time of the investment, should have been more fully taken into account by the investor.[89] However, within the context of transboundary hydropower projects, this raises questions over how investors can effectively reach out to communities affected by such projects that may be located across the border – either upstream or downstream - from where the project is situated.

73 UNCTAD (2013), 'Towards a new generation of international investment policies: UNCTAD's fresh approach to multilateral investment policy-making' IIAs Issues No. 5, 4 -5. See UNCTAD, World Investment Report 2012 and UNCTAD, World Investment Report 2013

74 Jorge E Viñuales, 'Foreign Investment and the Environment in International Law: The Current State of Play', in Kate Miles (ed), Research Handbook on Environment and Investment Law (Edward Elgar 2019).

75 Catherine Titi, 'Police Powers Doctrine and International Investment Law', in Filippo Fontanelli, Andrea Gattini and Attila Tanzi (eds), General Principles of Law and International Investment Arbitration (Brill 2018), 323-343.

76 UNCTAD, 'Towards a new generation of international investment policies: UNCTAD's fresh approach to multilateral investment policy-making' (2013), IIAs Issues No. 5, 2, https://unctad.org/system/files/official-document/webdiaepcb2013d6_en.pdf.

77 2004 Model US BIT. Annex B to Article 6, https://ustr.gov/sites/default/files/U.S.%20model%20BIT.pdf.

78 UNCTAD, World Investment Report 2013: Global Value Chains: Investment and Trade for Development (2013), 102. For instance, Bangladesh–Turkey BIT, Cameroon– Turkey BIT, Canada–China BIT, China–Japan– Republic of Korea IIA, Gabon– Turkey BIT, Iraq–Japan BIT, and Pakistan–Turkey BIT.

79 Ibid. Examples include the trade and sustainable development Chapter of the EU–Colombia–Peru FTA; and the preamble of the China-Japan-Korea IIA.

80 EU - Iraq Partnership and Cooperation Agreement, EU-Colombia-Peru FTA.

81 T Voon, 'Modernising the Energy Charter Treaty: What about termination?' (2019), Investment Treaty News, IISD, https://www.iisd.org/itn/2019/10/02/modernizing-the-energy-charter-treaty-what-about-termination-tania- voon/#_ftn1. The ECT is a sector specific investment agreement with 51 contracting parties, mainly from the EU and Eastern Europe.

82 Urbaser S.A. and Consorcio de Aguas Bilbao Biskaia, Bilbao Biskaia Ur Partzuergoa v. Argentine Republic (ICSID Case No. ARB/07/26); SAUR International v. Argentine Republic (ICSID Case No. ARB/04/4); AWG Group Ltd. v. The Argentine Republic; Azurix Corp. v. Argentine Republic (II) (ICSID Case No. ARB/03/30).

83 Bear Creek Mining Corporation v. Republic of Peru (ICSID Case No. ARB/14/21); South American Silver Limited v. The Plurinational State of Bolivia (PCA Case No. 2013-15); Agro EcoEnergy Tanzania Limited, Bagamoyo EcoEnergy Limited, EcoDevelopment in Europe AB, EcoEnergy Africa AB v. United Republic of Tanzania (ICSID Case No. ARB/17/33).

84 Galway Gold Inc. v. Republic of Colombia (ICSID Case No. ARB/18/13); Red Eagle Exploration Limited v. Republic of Colombia (ICSID Case No. ARB/18/12); Cosigo Resources, Ltd., Cosigo Resources Sucursal Colombia, Tobie Mining and Energy, Inc. v. Republic of Colombia.

85 Some examples are: Albaniabeg Ambient Sh.p.k, M Angelo Novelli and Costruzioni Srl v Albania (contract claim decided in favour of Albania, 2014), Hydro S.r.l. and others v. Republic of Albania (Italy – Albania BIT, 2015, decided in favour of investor); Latam Hydro and CH Mamacocha SRL v Peru Latam Hydro and CH Mamacocha SRL v Peru (US-Peru Trade and Promotion and Agreement, 2019); Viaduct d.o.o. Portorož, Vladimir Zevnik and Boris Goljevšček v Bosnia and Herzegovina (ECT and Slovenia – Bosnia BIT, 2016); See also summaries provided by Global Arbitration Review and Investment Arbitration Reporter.

86 L Bohmer, 'Peru hit with Arbitration by US-based Renewables Company over Hydroelectric Power Project that ran into local opposition, and ultimately foundered' IA Report, 2019, https://www.iareporter.com/articles/peru-hit-with-arbitration-by-us-based-renewables-company-over- hydroelectric-power-project-that-ran-into-local-opposition-and-ultimately-foundered/

87 Bear Creek Mining Corporation v. Republic of Peru, ICSID Case No. ARB/14/21, Award of November 30, 2017, para 412.

88 Ibid.

89 Ibid, para 11.

Institutional standards and other policies relating to transboundary hydropower projects

The World Bank and the International Finance Corporation

The Environmental and Social Framework of October 2018 lays out the latest iteration of environmental and safeguards of the World Bank.[90] A key element of the framework are the ten Environmental and Social Standards, which set out requirements for borrowers. They include the need to assess, manage and monitor social and environmental risks at each stage of the project cycle; create safe and healthy working conditions and pursue inclusive economic growth; manage resources effectively and prevent pollution; minimise health, safety and security risks for project-affected populations; avoid involuntary resettlement where possible and – where not possible – minimise adverse impact on displaced persons through development of a resettlement action plan; protect biodiversity; respect the economic, social and cultural rights of indigenous peoples and minimise, mitigate and/or compensate for any impacts; protect tangible and intangible cultural heritage; the need for financial intermediaries to manage social and environmental risks; and conduct transparent stakeholder engagement across all stages of the project cycle.[91]

In terms of transboundary aspects, the Environment and Social Framework explicitly requires the World Bank to take into account transboundary risks and impacts of a project.[92] Towards this endeavour, the borrower must conduct an environmental and social assessment that, where appropriate, accounts for 'potentially significant project-related transboundary and global risks and impacts, such as ... increased use or contamination of international waterways....'[93] Additionally, the environmental and social assessment must, where relevant, 'take into account the requirements of OP 7.50 on international waterways'.[94] OP 7.50 applies to certain projects on transboundary rivers,[95] including hydropower.[96] The policy requires a beneficiary State to notify all riparian States of its plans, and encourages riparians to enter into agreements or arrangements relating to the particular river in question. Additionally, prior to financing a project, 'the Bank normally urges the beneficiary State to offer to negotiate in good faith with the other riparians to reach appropriate agreements and arrangements.'[97]

The World Bank monitors compliance with the Environmental and Social Framework. The borrower must draw up an Environmental and Social Commitment Plan (ESCP), which forms part of the contractual arrangements. The ESCP must set out how the borrower will meet the ten Environmental and Social Standards. The ESCP must also include information on how the borrower will manage changes in the project, including unforeseen circumstances.[98] Projects are complete only when the ESCP is fully implemented. The World Bank will provide implementation support. Where the borrower fails to implement corrective measures

90 The World Bank, Environmental and Social Framework, https://www.worldbank.org/en/projects-operations/environmental-and-social-framework.
91 Ibid, at 6-10.
92 Ibid, at 4.
93 Ibid, at 21.
94 Ibid, at 25.
95 World Bank, Operational Policies – Projects on International Waterways – OP 7.50 (June 2001), in Salman M.A. Salman, The World Bank Policy for Projects on International Waterways – An Historical and Legal Analysis (The World Bank, 2009), at 253. OP 7.50 stipulates that the policy applies to 'international waterways', which are defined as '(a) any river, canal, lake or similar body of water that forms a boundary between, or any river or body of surface water that flows through, two or more States, whether Bank members or not; (b) any tributary or other body of surface water that is a component of any waterway described in (a) above; and (c) any bay, gulf, strait, or channel bounded by two or more States or, if within one State, recognized as a necessary channel of communication between the open sea and other States – and any river flowing into such waters'.
96 Ibid. 'Projects', as defined by OP 7.50 include, 'hydroelectric, irrigation, flood control, navigation, drainage, water and sewerage, industrial, and similar projects that involve the use or potential pollution of international waterways....'
97 Ibid.
98 Supra note 90, at 9.

adequately, the World Bank may apply its own remedial measures. The borrower must also provide a grievance mechanism for project-affected people. Project- affected people may submit complaints to the project's grievance mechanism or directly to the World Bank's Grievance Redress Service.[99]

Similar to the World Bank's 2018 Environmental and Social Framework, the 2012 International Finance Corporation's Performance Standards on Environmental and Social Sustainability comprise eight standards to manage environmental and social risk and applies to all borrowers who go through an initial credit assessment. The eight standards cover risk management, labour, resource efficiency, community, resettlement, biodiversity, indigenous people, and cultural heritage.[100] In terms of compliance, the International Finance Corporation (IFC) states that '[i]n the case of its direct investments (including project and corporate finance provided through financial intermediaries), IFC requires its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced.'[101] In addition, clients must comply with national laws and international obligations of host countries. During project appraisal the World Bank Group's Environmental, Health and Safety Guidelines (EHS Guidelines) – which are linked to the Environmental and Social Framework – function as technical reference points. Where national guidelines are of a higher standard, the more stringent standards apply.[102]

The World Bank standards are not only some of the longest-established safeguards, but they also often function as reference points for newer guidelines, such as those developed by the International Hydropower Association (see below).

Regional development banks

Regional development banks also follow similar standards to the World Bank. For example, the African Development Bank (AfDB)'s strategy 2013-2022 highlights a number of key operational priorities, which include infrastructure development, regional integration, private sector development, governance and accountability, and skills and technology.[103] All these priorities, and the projects supported thereunder, are subject to operational safeguards, as well as procedures that the Bank and borrowers must follow to comply with those safeguards.[104] Operational safeguard 1 – Environmental and social assessment (OS1), sets out the overarching requirements for borrowers when identifying, assessing, and managing any potential risks and impacts associated with a project. Four additional operational safeguards support the implementation of OS1.[105] In line with World Bank requirements, AfDB's OS1 requires borrowers to conduct an environmental and social assessment, and produce an appropriate plan for managing possible impacts.[106] As part of this exercise, borrowers must assess the scope of the project's area of influence, both upstream and downstream, including both transboundary and cumulative impacts; and consider alternatives.[107] Additionally, pursuant to Operational safeguard 4 – Pollution prevention and control, hazardous materials and resource efficiency (OS4),

99 Supra note 90, at 10-11. See for example the two cases submitted to the grievance redress service concerning the Regional Rusumo Falls Hydroelectric Project, http://documents1.worldbank.org/curated/en/349541608560718232/text/Disclosable-Restructuring-Paper-AFR- RI-Regional-Rusumo-Falls-Hydroelectric-Project-P075941.txt.
100 International Finance Corporation, Performance Standards on Environmental and Social Sustainability, 1 January 2012, https://www.ifc.org/wps/wcm/connect/24e6bfc3-5de3-444d-be9b-226188c95454/PS_English_2012_Full-Document.pdf?MOD=AJPERES&CVID=jkV-X6h.
101 Ibid.
102 Ibid, 1-2.
103 African Development Bank Group, African Development Bank Group's Integrated Safeguards System – policy statement and operational safeguards (December 2013), https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/December_2013_-_AfDB'S_Integrated_Safeguards_System__-_Policy_Statement_and_Operational_Safeguards.pdf.
104 Ibid.
105 These operational safeguards are involuntary resettlement: land acquisition, population displacement and compensation (OS2); biodiversity and ecosystem services (OS3); pollution prevention and control, greenhouse gases, hazardous materials and resource efficiency (OS4); and labour conditions, health and safety (OS5).
106 African Development Bank Group, supra note 103, at 22.
107 Ibid.

borrowers are required to prevent, 'the discharge of pollutants into the air, surface water and groundwater, land and soil during planned activities as well as unplanned events or emergencies that may result in local, regional, and transboundary impacts.[108] OS4 goes on to state that, 'if total prevention is not feasible, the borrower or client takes specific actions to reduce or minimise the effluents or volume of discharge'.[109] Borrowers must also conduct and provide evidence of meaningful consultation with communities likely to be affected by any environmental and social impacts.[110]

The Bank's compliance and safeguards division monitors compliance with the operational safeguards. Country-level grievance and redress mechanisms for those potentially affected by the environmental and social impacts of a project must also be established. Additionally, the Bank's Independent Review Mechanisms provides a forum by which potentially affected people can seek redress and ensure that the operational safeguards are implemented by the Bank and its borrowers properly.[111]

New donors and emerging economies: The New Development Bank and the Asian Infrastructure Investment Bank

The New Development Bank, formally referred to as the BRICS Development Bank, is a multilateral development bank developed by Brazil, Russia, India, China and South Africa. In line with the policies of other multilateral development banks, the New Development Bank's Environmental and Social Framework, last updated in 2016, conducts project screenings covering environmental impacts, involuntary resettlement, and the rights of indigenous people.[112] It then assigns projects the categories A, B, C and FI, the latter referring to projects with financial intermediaries or where a project involves the investment of funds. Projects categorised as A and B require clients to carry out detailed assessments. Category A projects require an environmental impact assessment, including an environmental management plan, a resettlement action plan or framework, an assessment of social impacts, and an indigenous peoples plan.[113] Such an assessment must also account for potential transboundary impacts.[114] The Environmental and Social Standards, which form part of the Environmental and Social Framework, list more detailed aspects that clients have to cover in their impact assessments. Documents for category B projects will be determined on a case-by-case basis. Category C projects will undergo a review of the impact based on project documentation. For category FI projects, the borrower will need to provide information for sub-projects, the impact of which will then be assessed.

While the international guidelines referenced earlier refer borrowers to standards for international good practice – often those of the World Bank Group – the New Development Bank, 'promotes the use of country and corporate system [sic] for the preparation of environmental and social documents.'[115] This also applies to public consultations with project-affected communities, which the bank states must be, 'compliant with national laws and regulations', and

108 Ibid, at 46.
109 Ibid.
110 Ibid.
111 Ibid.
112 New Development Bank, Environment and Social Framework (March 2016), https://www.ndb.int/wp-content/uploads/2017/02/ndb-environment-social-framework-20160330.pdf.
113 Ibid, at 8.
114 Ibid, at 14.
115 Ibid, at 8.

the bank's Environmental and Social Framework.[116] Compliance is monitored through the borrower's periodic reporting on environmental and social measures, 'as provided in the legal agreements and/or country systems.'[117] This is an addition to the bank's own process of monitoring the clients' adherence to the environmental and social measures. Furthermore, the bank stipulates that project-affected people have the right to access grievance mechanisms. Rather than setting out a process for this, the bank refers to '[e]xisting national mechanisms for grievance redressal [...] if such national mechanisms are deemed appropriate and in compliance with the objectives of this Framework.'[118]

In 2016, the Asian Infrastructure Investment Bank (AIIB) was established to 'foster sustainable economic development, create wealth and improve infrastructure connectivity in Asia by investing in infrastructure and other productive sectors' and to promote 'regional cooperation and partnership in addressing development challenges by working in close collaboration with other multilateral and bilateral development institutions'.[119] Thus far, it has approved 87 projects, totalling 19.6 billion USD in investments.[120] While the AIIB is primarily focussed on Asia and the Pacific, its members are both regional and non-regional, including 45 regional members, and 37 non-regional members.[121]

In relation to hydropower and transboundary waters, the most relevant policy documents of the AIIB are the Environmental and Social Framework[122] and the Operational Policy on International Relations. The Environmental and Social Framework applies to all AIIB's projects (para. 7), unless the project is undertaken in a State whose own standards are higher than that of the Bank, in which case that State's own standards will be used (para. 9). Projects are categorized and reviewed according to their environmental and social risks (para. 12). All projects require environmental and social due diligence as appropriate to the project and the level of risk involved (para. 16). Environmental and social assessments are conducted for projects that are assessed to have potentially adverse environmental or social risks or impacts (para. 27). The Framework lays out the basic components of such an assessment, including a) a description of the project, b) the policy, legal and administrative framework (international and domestic) related to the project, c) a scoping (identifying stakeholders and plans for consultation), d) an analysis of alternatives, e) baseline environmental and social data, f) an evaluation of environmental and social risks, g) details on public consultation and information disclosure, and h) the development of mitigation plans (para. 28). The Framework has dedicated provisions related to indigenous peoples (para. 33), and screens projects for impacts on indigenous populations, which involves expert advice and consultations with indigenous communities (para. 33). If the project might impact indigenous peoples, then the client would also be required to prepare an indigenous peoples plan.

Once risks have been assessed, borrowers are required to develop measures to mitigate any impacts through the submission of an Environmental and Social Management Plan (para. 39). The Plan typically includes mitigation measures, reporting requirements,

116 Ibid, at 10.
117 Ibid, at 10.
118 Ibid, at 11.
119 AIIB, Articles of Agreement (2016). Art. 1
120 https://www.aiib.org/en/index.html
121 AIIB, Members and Prospective Members of the Bank (2020), https://www.aiib.org/en/about-aiib/governance/members-of-bank/index.html.
122 AIIB, Environmental and Social Framework (Amended February 2019), https://www.aiib.org/en/policies-strategies/framework-agreements/environmental-social-framework.html.

institutional and organizational arrangements, provisions for the disclosure of information and consultation, capacity development and training, schedule of implementation, and cost and performance indicators (para. 42). The Framework also requires meaningful consultation with stakeholders throughout the planning and implementation stages (para. 59). It establishes various guidelines based upon the original categorization of the project (para. 59). Projects impacting indigenous peoples are required to conduct 'Free, Prior and Informed Consultation', if the project impacts land and natural resources that are traditionally associated with indigenous peoples, cause the relocation of indigenous peoples, or have significant impact on indigenous people's cultural heritage (para. 60). Further details on these requirements and procedures are found in the Environment and Social Standard 1, Environmental and Social Standard 2: Involuntary Resettlement, and Environmental and Social Standard 3: Indigenous Peoples.

In terms of project financing relating to transboundary watercourses, the Operational Policy on International Relations includes a section on 'International Waterways.'[123] AIIB will only finance projects concerning international waterways when they are, 'satisfied the project will not have material adverse effect on the other riparians' (para. 3.1 a) or 'if all riparians provide their non-objection' (para. 3.1 b). Proposed projects are assessed by the AIIB, taking into consideration potential effects on all riparians, including effects on their possible use of water (para. 3.2). Also, the AIIB requires all riparians to be notified, and that such notification includes information on potential effects and 'all available technical data and information, including the results of any environmental and social impact assessment' (para. 3.3 a). Notification must take place at least 60 days prior to expected approval of financing, and riparian States have 30 days to provide their objection or no-objection (para. 3.3 b). If the borrower or owner does not wish to notify, the Bank will notify each riparian. These strict requirements of notification, however, are not applicable to projects that are expected to have 'minimal or no effect' on other riparians or to funded 'water resource surveys, feasibility studies or environmental and social assessments on or involving the international waterway' (para. 3c I and ii). If the Bank receives a 'technical objection' to the project within the 30-day time frame, the objection is reviewed as part of its assessment for funding the project (para. 3.4). If the objection raises more serious and technical challenges, the Bank may enlist the aid of an expert. If the Bank approves the project for financing, then all details on the potential effect on riparians, the Banks assessment, and the notification process will be included in the Project Documentation.

Standards for private banks – the Equator Principles and UNEP's finance initiative

As a consequence of the proliferation of sustainability initiatives, private project developers are increasingly bound to sustainability policies where they are either involved in projects funded by International Financial Institutions or where they borrow from private banks that have signed up to a sustainability initiative. These include the Equator Principles and the UNEP Finance Initiative Principles for Responsible Banking.

123 AIIB, Operation Policy on International Relations (2017), https://www.aiib.org/en/policies-strategies/_download/operational-policy-on-international-relations/operational-policy-on-international-relations.pdf. 'International waterways' are defined in a similar way to the World Bank Operational Policy, see supra note 95, and section II, para. 2.1b of the AIIB Policy.

Last updated in July 2020, the Equator Principles are a set of principles for environmentally and socially responsible lending designed to prevent unsustainable project financing. Institutions that have signed up to the Equator Principles vet potential clients against ten principles.[124] Most of these relate to assessing and managing impact, but some also establish various forms of compliance.

The first group of principles contained in the Equator Principles include: a project screening requirement at application stage, which divides projects into categories (A, B, and C). Category A projects have 'diverse, irreversible or unprecedented' impacts; category B projects have limited adverse impacts, or any impacts are largely reversible or mitigated; and category C projects have minimal or no adverse impacts. Following project screening and the categorisation of projects, a lendee has to conduct a satisfactory environmental and social risk assessment, including a climate change risk assessment, provide evidence of how any potential impacts might be minimised or mitigated, and develop a plan to compensate, offset or remedy any remaining impacts for workers, affected communities, and the environment. Category A projects – and, where deemed necessary, category B projects – will need to complete a full Environmental and Social Impact Assessment (ESIA). An additional requirement is that clients must also comply with host country laws (so-called Designated Countries) where these are deemed to be robust or apply World Bank safeguards and International Finance Corporation Performance Standards where countries are deemed to have weak or no environmental and social protection laws (so-called Non-Designated Countries). In addition to the ESIA, clients must develop and maintain an Environmental and Social Management Plan. Lastly, a lendee needs to demonstrate effective stakeholder engagement, including use of local languages of project-affected people and use of culturally appropriate ways of engagement, inclusion of vulnerable groups, disclosure of adverse environmental and social impacts, and protection of the rights of indigenous people.[125]

The second group of principles include a number of mechanisms related to monitoring and compliance. There is a need to establish a grievance mechanism for project-affected people and workers. For category A, and where appropriate category B projects, an environmental and social consultant must carry out an independent review of the assessment process, including the environmental and social management plan, the environmental and social management system, and the stakeholder engagement process. In addition, the lendee is required to covenant with the lender to engage in cooperative remedial action where lenders establish that projects do not comply with the Equator Principles. An independent consultant – or a verified external expert retained by the borrower – will monitor category A projects – and where appropriate category B projects – after financial closure and over the lifetime of the loan. Finally, borrowers have to report at least once a year on greenhouse gas emissions, publish biodiversity data, and publish a summary of

124 Equator Principles, July 2020, https://equator-principles.com/about-the-equator-principles/. 118 financial institutions across 37 countries have signed up to the Equator Principles, see https://equator-principles.com/members-reporting/.

125 Ibid, principle 1-5.

the ESIA.[126] The Equator Principles do not explicitly address the transboundary aspects of a project, although such aspects would need to be taken into account during any environmental and social risk assessment, as well as any stakeholder engagement process.

While the Equator Principles were developed specifically for greener and more socially sustainable lending, the UNEP Finance Initiative Principles for Responsible Banking seek to promote wider development concerns.[127] Designed to help meet both the SDGs and the Paris Agreement climate targets, signatory banks must align their practices with the SDGs and the Paris Agreement. To become a member of the initiative, banks must follow three steps: conduct an analysis of their negative and positive impacts; set targets in relation to those impacts and provide a road map for meeting them; and report on their progress.[128] As with the Equator Principles, compliance mechanisms are built into the core of the initiative. A Banking Board oversees the banks' progress, identifies any remedial action, and may ultimately revoke signatory status.[129]

Standards and policies for multinational enterprises

Two other approaches to influence the practices of multinational enterprises are the Common Approaches and the Global Compact. Last updated in April 2016, the Common Approaches, formally known as OECD Recommendation of the Council on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence, are unique in that they apply to OECD companies applying for export credits from their national governments.[130] The Common Approaches take the form of non-legally binding recommendations to member governments. However, where governments decide to apply them in national law, they may then become binding for companies applying for export credits, ie., companies that provide components of a hydropower scheme. When applying for export credits, projects are screened and classified into categories A, B and C. Category A projects are deemed likely to have significant social and environmental impacts, category C projects are considered to minimal impact, and Category B projects are somewhere in between. An ESIA is required for category A projects, and potentially for category B projects, based on the project's likely impact. An ESIA is to be conducted following World Bank Safeguards and the International Finance Corporation's Performance Standards. Where national agencies then grant export credit guarantees, companies should be monitored regarding their compliance with the ESIA and the actions stated therein. Where companies become non-compliant during construction or operation of the project, national agencies can request corrective action or withdraw export guarantees.[131]

OECD has also developed the Guidelines for Multinational Enterprises, which are described as 'non-binding principles and standards for responsible business conduct in a global context consistent with the applicable laws and international recognised standards.'[132] While not covering transboundary issues directly, the Guidelines cover a wide range of topics relevant to hydropower projects, including human rights and the environment. In relation to human rights, the Guidelines recognise the responsibility of both governments and private companies for protecting human rights, and call upon private companies to, 'carry out human rights due diligence as appropriate to their size, the nature and context of operations and the severity of the risk of adverse human rights impacts.'[133] Along similar lines, private companies are obliged to, 'take due account of the need to protect the environment, public health and safety, and generally to conduct their activities in a manner contributing to the wider goal of sustainable development.'[134] In taking into account the potential impacts of their activities on both human rights and the environment, the OECD Guidelines also stress the value of stakeholder engagement, and encourage private companies to, 'engage in adequate and timely communication and consultation with the communities directly affected by environmental, health and safety policies of the enterprise and by their implementation.'[135]

While not, therefore, explicitly referring to transboundary issues, the OECD Guidelines call upon private companies to account for any human rights and environmental impacts of their activities, even where those activities, and any potentially affected stakeholders, may be across sovereign borders. A couple of cases support such an interpretation. One case concerned by Xayabury Hydropower project located in Laos on the mainstream of the Mekong River. The Lao government hired Pöyry, a Finnish consulting firm, to provide advice on the construction of the Xayabury dam.[136] Subsequently, 14 civil society organisations filed a case with the Finnish national contact point for the OECED Guidelines,[137] claiming that Pöyry had not adequately accounted for the downstream impacts of the project in Cambodia, Thailand and Vietnam, or engaged effectively with potentially affected stakeholders. While the national contact point did not find that Pöyry breached the OECD Guidelines, they did confirm that Pyöry had a responsibility to conduct due diligence in a way that accounted for transboundary impacts. Along similar lines, another case concerned an Austrian company, Andritz Hydro GmbH, which supplied the turbines of the Xayabury project.[138] In this case the Austrian national contact was of the opinion that the OECD guidelines, and its environmental and social standards, apply to both suppliers of the components of a project, and the implementors of the project.[139] There is therefore a need for suppliers of the components of transboundary hydropower projects, such as the turbines, to carry out the appropriate due diligence as the guidelines extend to, 'business partner entitles in the supply chain and any other non-State or State entities directly linked to its business operations, products or services.'[140] The Guidelines go on to stipulate that, 'if the enterprise identifies a risk of contributing to an adverse impact, then it should take the necessary steps to cease or prevent its contribution and use its leverage to mitigate any remaining impacts to the greatest extent possible.'[141]

126 Ibid.
127 UNEP Finance Initiative, Principles for Responsible Banking, https://www.unepfi.org/banking/bankingprinciples/.
128 UNEP Finance Initiative, Principles for Responsible Banking: Guidance document (2019), https://www.unepfi.org/industries/banking/principles-for-responsible-banking-guidance-document/#:~:text=The%20Principles%20for%20Responsible%20Banking,take%20to%20implement%20each%20Principle; UNEP Finance Initiative, Principles for Responsible Banking: Key steps to be implemented by signatories, https://www.unepfi.org/wordpress/wp-content/uploads/2019/07/Key-Steps-to-be-Implemented-by- Signatories.pdf.
129 UNEP Finance Initiative, Accountability, https://www.unepfi.org/banking/bankingprinciples/accountability/.
130 See https://legalinstruments.oecd.org/public/doc/280/280.en.pdf.
131 OECD, Recommendation of the Council on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence (2016), available at https://one.oecd.org/document/TAD/ECG(2016)3/en/pdf.
132 OECD, Guidelines for Multinational Enterprises (2011 edition), http://www.oecd.org/daf/inv/mne/48004323.pdf
133 Ibid, at 31.
134 Ibid, at 42-44.
135 Ibid, at 42.
136 See Siemenpuu et. al. vs Pöyry Group, Pöyry Group's controversial advice on Xayaburi Dam in Laos, https://www.oecdwatch.org/complaint/siemenpuu-et-al-vs-poyry-group/.
137 National contact points, which are usually government departments, are responsible for monitoring compliance with the guidelines.
138 OECD, Andritz Hydro GmbH and Finance and Trade Watch, Austria, https://mneguidelines.oecd.org/database/instances/at0005.htm.
139 Finance and Trade Watch, Follow-up Statement. Concerning the specific instance complaint that Andritz Hydro GmbH contribute to human rights abuses and environmental damage in connect to the Xayaburi Hydropower Project in Lao PDR, https://www.oecdwatch.org/wp-content/uploads/sites/8/dlm_uploads/2021/03/Finance%20&%20Trade%20Watch%20Austria%20et%20al.%20vs.%20Andritz%20AG%20-%20Follow-up%20Statement.pdf.
140 OECD, supra note 132, at 23.
141 Ibid, at 24.

The UN Global Compact is another voluntary initiative aimed at the promotion of sustainability principles amongst private companies. It consists of ten principles related to human rights, labour, the environment, and anti-corruption.[142] While not directly addressing transboundary aspects of a project, such aspects must be taken into account when complying with the principles, particularly in relation to the environmental and human rights related principles.[143]

In terms of compliance, however, the Global Compact states that it, 'is not designed, nor does it have the mandate or resources, to monitor or measure participants' performance'.[144] Instead, it has developed a number of so-called integrity measures, including regular reporting by signatories on progress as well as dialogue facilitation to handle any alleged violations of the Global Compact standards. For enforcement the Global Compact solely relies on its status-enhancing role. 13,043 companies within 160 countries have signed up to follow the Global Compact.[145]

A further source of standards pertaining to the conduct of private companies are the Guiding Principles on Business and Human Rights, adopted by the Human Rights Council in 2011.[146] The Principles stress a State's responsibility to take appropriate steps to prevent, investigate, punish and redress any human rights abuses by private actors, including 'home States' taking appropriate steps, 'to prevent abuse abroad by business enterprises within their jurisdiction.'[147] Private companies have a responsibility to protect human rights in accordance with the Guiding Principles, which includes an obligation to carry out, 'human rights due diligence'.[148] While not specific to a transboundary context, this requirement would suggest that private companies should assess potential transboundary impacts of any project that they are involved in.

General Comment 24 on State Obligations of the ICESCR (GC24) provides additional guidance on the relationship between private companies and human rights.[149] While building upon the Guiding Principles on Business and Human Rights, GC24 emphasises a State's obligation, to 'adopt legislative, administrative, educational and other appropriate measures, to ensure that victims have effective remedies.'[150] Within a transboundary context, this requirement suggests the need for victims from potentially affected States downstream of a planned hydropower project to have a right to access judicial or other procedures, or have a right to claim compensation or other relief in the State where such activities take place.[151] In line with International Labour Organisation Convention 169, GC24 also recognises the need for States to account for the impact of private companies on indigenous peoples, and 'in particular, actual or potential adverse impacts on indigenous peoples' rights to land, resources, territories, cultural heritage, traditional knowledge and culture.'[152] The significance of these requirements within a transboundary context is heightened by GC24 stipulating that, 'obligations of the Covenant are expressed without any restriction linked to territory or jurisdiction.'[153]

142 See https://www.unglobalcompact.org/what-is-gc/mission/principles.

143 In terms of human rights, principle 1 requires that 'businesses should support and respect the protection of internationally proclaimed human rights', and principle 2, requires businesses, 'make sure that they are not complicit in human rights abuses'; whereas in relation to environmental protection, principle 7 requires that, 'business should support a precautionary approach to environmental challenges', 'undertake initiatives to promote greater environmental responsibility' (principle 8), and, 'encourage the development and diffusion of environmentally friendly technologies (principle 9).

144 UN Global Compact, Our Integrity Measures, https://www.unglobalcompact.org/about/integrity-measures.

145 See https://www.unglobalcompact.org.

146 UN, Guiding Principles on Business and Human Rights – Implementing the United Nations "Protect, Respect and Remedy" Framework, https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf.

147 Ibid, at 4.

148 Ibid, at 5.

149 UN, General Comment No. 24 on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business, 2017, https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-comment-no-24-2017-state-obligations-context.

150 Ibid, at para. 14.

151 See also, Art. 32, 1997 Watercourses Convention, supra note 22.

152 UN, supra note 149, para. 17.

153 Ibid, para. 27.

Standards specific to the water management and the hydropower sector

The policies set out above by the United Nations, OECD, World Bank, the International Finance Corporation and the Equator Principles form a reference point for one of the newest and more inclusive initiatives to develop international good practice for the hydropower sector: The International Hydropower Association (IHA)'s Sustainability Tools.[154] These tools include Hydropower Sustainability Guidelines on Good International Industry Practice (HGIIP),[155] the Hydropower Sustainability Assessment Protocol (HSAP),[156] and the Hydropower Sustainability ESG Gap Analysis Tool (HESG).[157]

Developed by the IHA through a broad and extensive stakeholder process, the HGIIP sets standards for good international practice across all stages of a project cycle and apply to banks and companies alike. Compliance with HGIIP can be set out in contracts between project developers and funders. Contracting parties can, therefore, choose if they want to reference HGIIP.[158] Performance against HGIIP is measured using the HSAP, which establishes a sustainability profile of a project across environmental, social, technical, and economic aspects; and, the HESG, which helps identify gaps in the application of good international practice and, where appropriate, calls for a gap management plan. HGIIP attempts broad stakeholder buy-in through its governance, including International Organisations, such as the World Bank, new financial institutions, such as the New Development Bank (NBD), and international NGOs, such as WWF. In the environmental and social categories, key aspects include stakeholder engagement through the development of a communication and engagement strategy in all stages of the project cycle, the management of social and environmental issues, an emphasis on livelihood support for project-affected people, the robust planning of a resettlement process, and the economic, social and cultural rights of indigenous peoples and ethnic minorities.

The IHA sustainability tools explicitly reference transboundary aspects of a project at various places. For instance, at the assessment stage of a project, the importance of assessing the governance environment is noted, including 'transboundary issues.'[159] The HGIIP also call for 'governance risks' to be 'well-assessed' at the project preparation stage, which may include 'limitations or uncertainties in the institutional arrangements between neighbouring jurisdictions that address boundary-related issues, such as the management of project impacts in a river system, transport of goods and services, and information and resource sharing.'[160] This would suggest the need for a thorough analysis of the legal and institutional landscape, including any basin, sub-basin and bilateral arrangements that the countries concerned have entered into, as well as any regional and global environmental agreements that may apply.

The HGIIP also points to the importance of assessing how a project fits with regional policies and plans, such as those developed by river basin organisations. As noted above, this might include procedures that members of river basin organisations have developed, such as the procedures for notification under OKACOM and ZAMCOM.[161]

154 International Hydropower Association, The Hydropower Sustainability Tools, https://www.hydropower.org/sustainability-standard.

155 International Hydropower Association, Hydropower Sustainability Guidelines (HGIIP), https://www.hydropower.org/publications/hydropower-sustainability-guidelines.

156 International Hydropower Association, Hydropower Sustainability Assessment Protocol (HSAP), https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-comment-no-24-2017-state-obligations-context.

157 https://www.hydrosustainability.org/esg-tool.

158 HGIIP supra note 155, at 2.

159 Ibid, at 13.

160 Ibid, at 14.

161 Supra note 3.

In line with the aforementioned standards, the HGIIP also stress the critical importance of assessing the environmental and social impacts of a projects at the preparatory stage, and explicitly point to the need to assess, 'any transboundary aspects of the projects.'[162] The guidelines go on to state that this assessment would, 'allow for early and careful consideration of how transboundary issues will be addressed when assessing impacts, engaging with stakeholders, and defining measures.'[163] With regard to potentially affected stakeholders, the HGIIP also stress the importance of developing, 'management plans and processes for issues that affect project affected communities,' and stipulate that these plans and processes include, 'arrangements between jurisdictions that cover the implementation of plans, timing objectives, monitoring and evaluation mechanisms, and any handover arrangements.'[164] In this context, the important of having legal and institutional arrangements, such as functional river basin organisations is almost indispensable to ensuring that such there is effective engagement with potentially affected communities across different jurisdictions.

In terms of outcomes, the HGIIP stress the importance of downstream flows, and comment that, 'transboundary objectives would be relevant if the downstream effects of the hydropower facility cross into a different jurisdiction than that in which the reservoir, dam and power station are found'. The HGIIP go on to state that, '[i]f this is the case, then processes to assess and make determinations on downstream flow regimes should take into account transboundary stakeholders interests and objectives.'[165]

As a tool for implementing the HGIIP, the HSAP closely follows its the content, including the transboundary considerations noted above, whilst going into more specifics in terms of methodological approaches. For instance, in relation to data and information, the HSAP highlights the need to draw upon, 'records of meetings with representatives from governments, transboundary institutions and other key stakeholders'; as well as interviews with downstream authorities or community representatives.'[166]

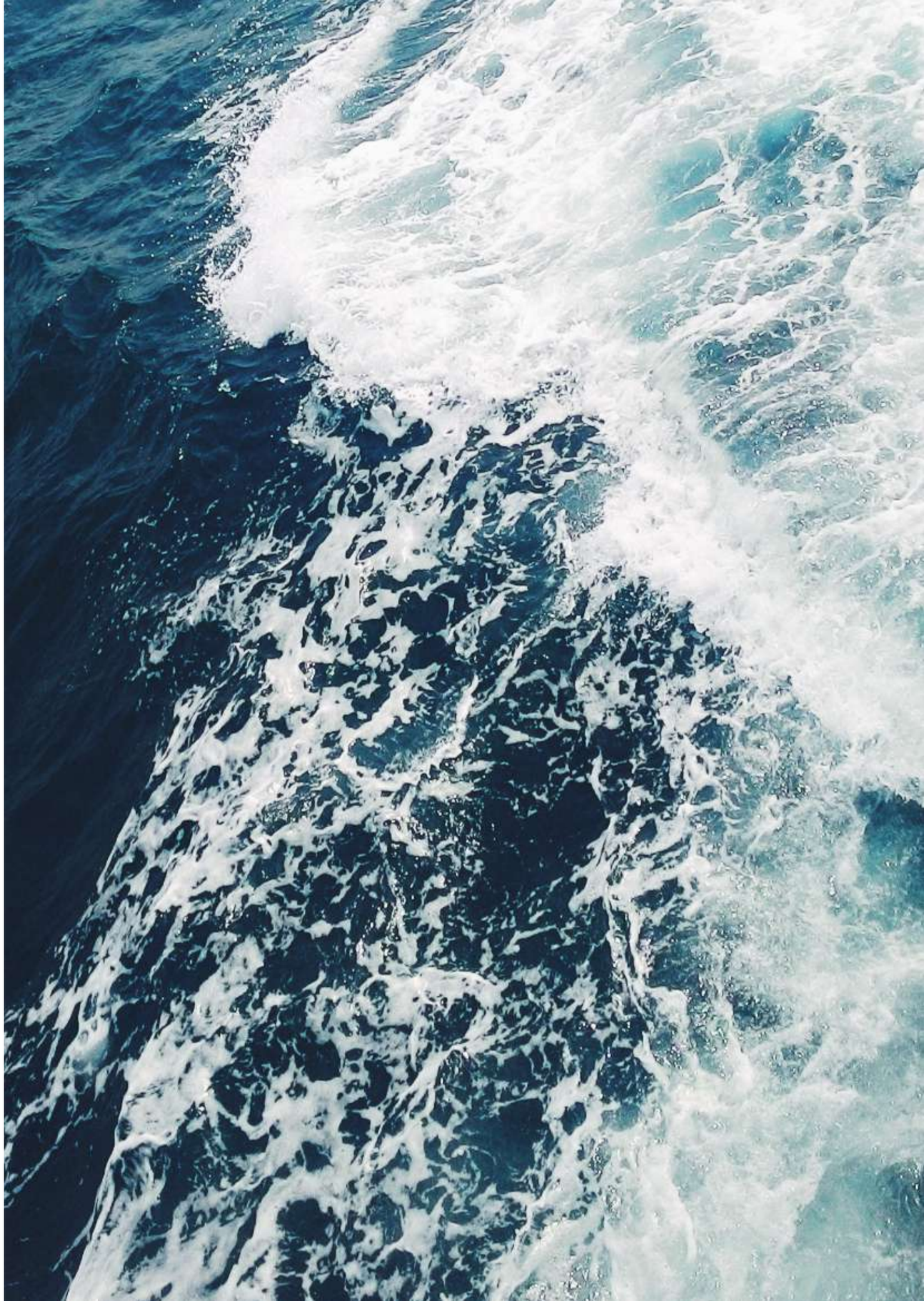
Another voluntary standard which attracts membership from business enterprises, NGOs and the public sector is the Alliance for Water Stewardship (AWS) and its International Water Stewardship Standard 2.0 scheme.[167] The AWS standard is a globally-applicable framework for major water uses designed to understand and address shared catchment water challenges, as well as risks and opportunities. Subscribers to the standards are required to address these challenges, risks and opportunities by progressing towards best practice concerning five key outcomes: good water governance, sustainable water balance, good water quality status, important water-related areas, and safe water, sanitation and hygiene for all (WASH).

162 HGIIP supra note 155, at 30.
163 Ibid.
164 Ibid, at 89.
165 Ibid, at 175.
166 HSAP supra note 156, at p. 36.
167 https://a4ws.org/the-aws-standard-2-0/.



Overview of Dispute Settlement Options

Planning State(s) and potential affected State(s)	Planning State(s) and non-State actor(s), e.g., (potentially) affected communities	Non-State actors, e.g. (potentially) affected communities and a hydropower company	Planning State(s) and a private investor (national or foreign)
Pursuant to the UN Charter, States are obliged to settle their disputes by peaceful means. States will normally initially seek to settle their disputes through negotiation	Where available, ie., where projects have been financed by respective International Financial Institutions, non-State actors may have the option to raise a complaint through a **grievance mechanism**. Grievance mechanisms may operate at regional, e.g., African Bank's Independent Review Mechanism, or an global levels, e.g. Inspection Panel or Grievance Redress Service of the World Bank or National Contact point of OECD Guidelines for Multinational Enterprises	Where there may be human rights violations, a complaint may be submitted via the special procedures of the Human Rights Council, committees of Human Rights Treaty bodies at the global or regional levels, or the Complaint Procedure of the Human Rights Council.	Foreign investors may resort to dispute settlement mechanisms contained in any domestic laws, contracts or international investment agreement concluded between their home-State and the Planning State hosting the investment, e.g. investor- State dispute settlement (ISDS) **Note!** Each instrument may impose different requirements when accessing dispute settlement mechanisms (ISDS e.g., exhaustion of local remedies, cooling off periods, etc)
Where **negotiation** proves unsuccessful States may seek the assistance of a 3rd party. States may choose one or a combination of the following: **good offices, mediation, conciliation,** and/or **arbitration** or **adjudication** to help them resolve a dispute. **Note!** Basin-specific, sub-basin, bilateral or other arrangements may set out the procedures, as well as a time frame, by which States must settle their disputes. However, not all basin-specific agreements contain dispute resolution procedures with binding effects (i.e. arbitration or adjudication)			
	Where the dispute remains unresolved, and the non-discrimination principle is applicable (see Art. 32 of the Watercourses Convention), non- State actors may seek redress through the domestic judicial system of a planning State, or via a National Human Rights body.		



Key laws, standards and guidelines applicable to hydropower projects on international rivers

International law

Environmental protection

- Convention on Wetlands of International Importance especially as Waterfowl Habitat, 2 February 1971 (Ramsar Convention)
- UN Framework Convention on Climate Change, 9 May 1992 (UNFCCC)
- UN Convention on Biological Diversity, 22 May 1992 (Biodiversity Convention)
- UN Conveniton to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particulary in Africa, 14 October 1994 (Desertification Convention)
- Convention on Environmental Protection in a Transboundary Context, 25 February 1991 (Espoo Convention)

Transboundary Waters

- Convention on the Law of the Non-navigational Uses of International
- Waterocurses, 21 May 1997 (Watercourses Convention)
- Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 March 1992 (Water Convention)
- Regional Conventions, including SADC Revised Protocol on Shared Watercourses, 7 September 2000 and EU Directive establishing a Framework for Community Action in the Field of Water Policy, 23 October 2000 (EU Water Framework Directive)
- River basin, sub-basin and bilateral treaties

Investment

- International Investment Agreements

Human Rights

- Convention on Access to Information, Public Partiicpation in Decision-making and Acccess to Justice in Enviromental Matters, 25 June 1988 (Aarhus Convention)
- Regional Agreement on Access to Information, Public Partiicpation and Justice in Environmental Matters, in Latin America and the Caribbean, 4 March 2018 (Escazú Agreement)
- UN Declaration of Human Rights, 10 December 1948
- International Covenant on Economic, Social and Cultural Rights, 16 December 1966
- UN Declaration on the Rights of Indigenous Peoples, 13 December 2007
- ILO Convention 169 (Indigenous and Tribal Peoples Convention), 26 June, 1989
- American Convention on Human Rights, 22 November 1969
- Africa Charter on Human and Peoples Rights, 1 June 1981
- European Convention on Human Rights, 3 September 1953

Development Bank Safeguard Policies and Procedures

- World Bank Environmental and Social Framework
- Regional Development Bank Policies

Principles applicable to Private Banks

- The Equator Principles
- UNEP Finance Initiative Principles for Responsible Banking

Industry-specific standards

- IHA Sustainability Standards
- OECD Guidelines for Multinational Enterprises
- Guiding Principles on Business and Human Rights
- World Commission on Dams, Dams and Development - A framework for decision-making, 2000



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