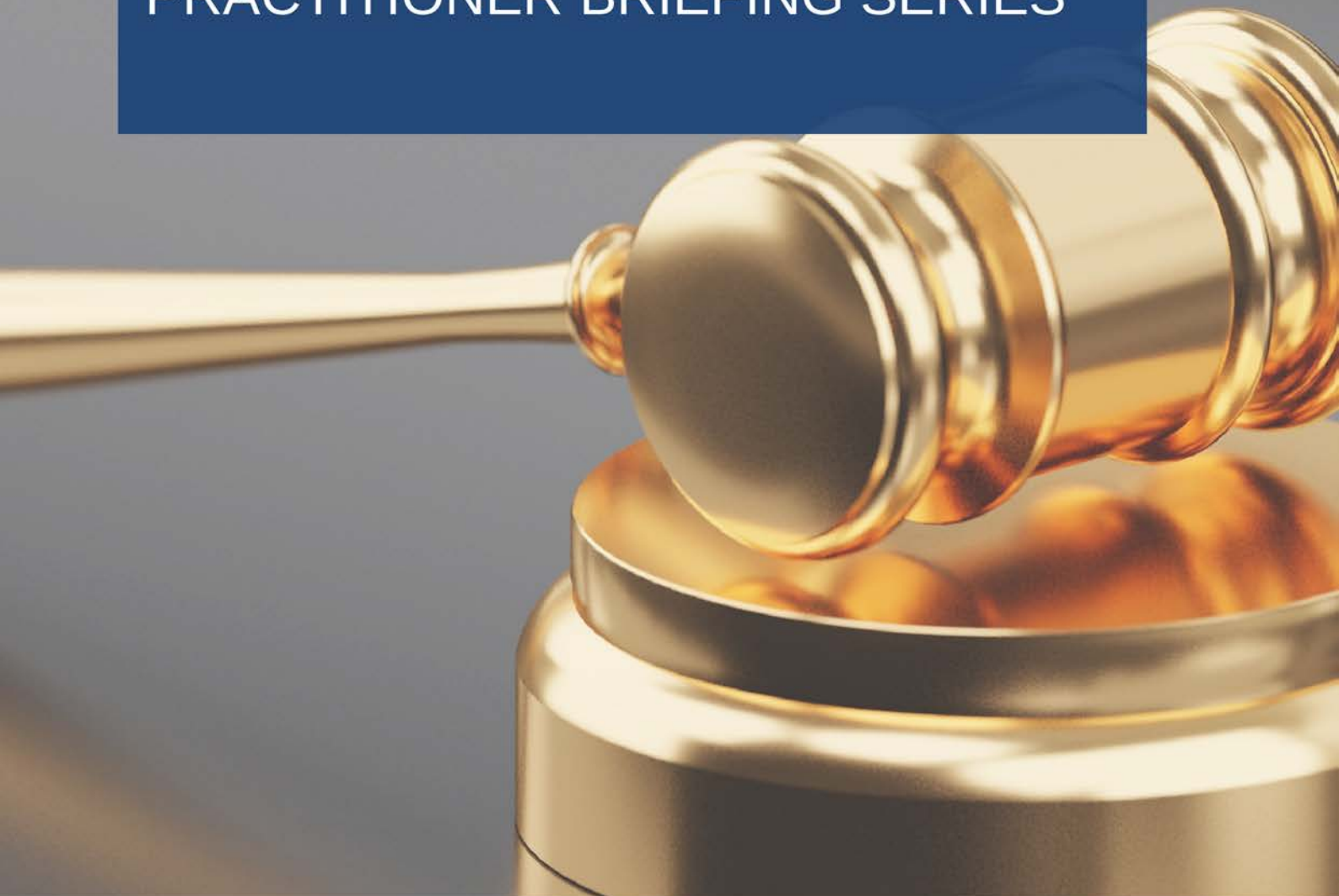




# TRANSBOUNDARY

## PRACTITIONER BRIEFING SERIES



International Water Law

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# International Water Law

## Introduction

One of the first questions raised with respect to international law is how will it be enforced? Customs, agreements, or shared values are only sufficient when all parties choose to abide by them. So what happens when there is conflict? An enforcement body recognized by all countries that can guarantee an outcome that all countries will adhere to does not often exist. The assumption is therefore often that international law cannot really be enforced. State sovereignty prevents it, with very little incentive to change this.

However, the United Nations and its Security Council are a clear representative of an international enforcement mechanism that has broad international recognition and is acting under Chapter VII of the UN Charter. The power of the UNSC to enact sanctions, either economic, diplomatic, or military, allows for mechanisms to compel behavior that keeps the peace and addresses identified threats. The primary means of pressure is through trade embargoes and sanctions, which are meant to influence the political leaders of a nation to correct a behavior. Although the impact of sanctions and their adverse effects on local populations is under discussion, these tools become more effective due to deeper regional and global cooperation and integration.

Aside from the larger threats of war and terrorism, there are disputes around natural resources which typically grab fewer headlines, while their impacts and repercussions may be just as large and could also lead to violent conflict. Transboundary conflicts over shared natural resources rely on international law, established customs, treaties, and international agreements to find resolution within cooperative frameworks. The formation and structure of these international water law (IWL) agreements are therefore critical to their probability for success and their enforceability once conflicts emerge.

Whether developed on a bilateral or multilateral basis, the role of international law is key. As will be demonstrated in this Briefing, the specifics of how agreements are governed and the avenues for dispute resolution can vary greatly depending on the circumstances. Power dynamics between nations,

### **Shared Watercourses:**

*Examining the evolution of international water law and its impact on transboundary cooperation and conflict.*

both in terms of soft power or physical resource control, as well as the number of nations sharing a watercourse directly or indirectly are also major factors. While many international agreements have been developed, they may or may not have included mechanisms for conflict resolution, or they may prove insufficient over time. This is especially the case if certain countries are excluded from an agreement, even though they are part of a basin. It is therefore critical to understand the historical context of international water law and agreements, and how best to formulate agreements on transboundary resources that are robust, fair, and flexible.

## Practical Summary

- International law provides principles and rules established by treaties or customs recognized by nations as binding to one another. These rules and principles are only as strong as the shared beliefs of nations within them to uphold and utilize them. Globalization has helped facilitate this.
- International Water Law (IWL) is applied to surface as well as groundwater.
- Water law has developed from the earliest civilizations into the modern era with key principles or *doctrines* that govern the utilization and sharing of water resources; particularly *riparian doctrine* and *prior appropriation*, with principles of *fair or reasonable-use*, *no significant harm*, or *absolute sovereignty*.
- In addition to factors such as wealth, power, and size of a country, international water law is further complicated by natural geography and whether a nation is upstream or downstream of the natural watercourse flow.
- A tapestry of water laws governs the world's watercourses today, with local, national, regional, and international doctrines and treaties, which influence, overlap, or may even contradict.
- Rationalizing disparate legal standards and universalizing doctrines internationally is critical for transboundary water cooperation and conflict resolution.
- High profile IWL disagreements today may be clearly addressed with current international tools.

## History of Water Law

### *From Mesopotamia to the 'New World'*



### The Code of Hammurabi

The control of water resources helped to spur the earliest human civilizations, to provide a reliable source of water for herds, for agriculture, and to manage waste. Throughout history, with societies developing from groups of hunter-gatherers to permanent settlements and agrarian societies, our relationship to water changed. Its importance became more dramatic, as polluted water sources and pathogens could destroy settlements.

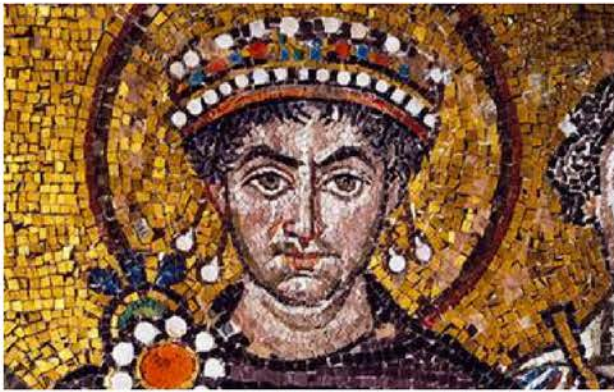
One of the earliest known permanent settlements today is that of Jericho in Palestine, dating from 8-7000 BCE, located on ancient water spring. There are remnants of ancient wells from Mesopotamia, Ancient Egypt, as well as channels and other water

management systems that allowed societies to be established and flourish. In terms of the legal organization of this vital resource, the earliest known surviving example is the Code of Hammurabi, governing Mesopotamia, the area between the Tigris and Euphrates rivers, or present day Iraq, Syria, and Turkey (Cech, 2010).

The unique impact of the Code of Hammurabi was not the creation of law itself, but to rationalize and organize laws into a code, which was etched in stone to preserve them. The code covered over 300 sections of law including personal behavior, marriage, theft, as well as water allocation. The arid nature of the region demanded the efficient use of water resources that originated miles away in the Armenian mountains.

Without careful management and cooperation, water would be scarce and conflict could ensue. Through a well-managed system of dikes, storage reservoirs, and irrigation canals, water was made available through the dry summer months. The code set out principles of payment and just compensation for lost crops due to any negligence of managing the water systems, establishing a precedent through the centuries (Cech, 2010).

## Justinian Code



*Justinian I, detail of a 6th-century mosaic at the church of San Vitale, Ravenna, Italy. Source: britannica.com*

Another famous example of rationalizing disparate laws is the Justinian Code during the Byzantine or Eastern Roman empire. Ordered by Emperor Justinian in 528 AD, it set out to compile all existing Roman laws of the past 13 centuries into a single volume. A standard was created using laws passed by legislative bodies, edicts from the emperor, and the interpretation of these laws by judges in specific cases. The Justinian Code, also known as *Corpus Juris Civilis* or *Body of Civil Law*, forms the basic premise of modern civil law today.

The Justinian Code brought the development of the most important water doctrine in use today in modern civil law, and international agreements such as the UN Watercourses Convention: the riparian doctrine. This provided for the basis of water allocation throughout the Roman Empire, establishing that water in a stream belongs to the public for fishing and navigation, and cannot be owned privately. Those on the shore or bank of a stream, the riparian landowners, owned the property up to the water's edge, and possibly to the middle of the stream, and therefore could make reasonable use of the waters for milling, agriculture or domestic use, provided that navigation was not impacted and no injury was caused to other parties.

Establishing norms of reasonable use, including unchanged quantity or quality, is a critical component in the development of water allocation laws that followed, all the way into the modern era. The Justinian Code was further expanded upon by later rulers in Spain with the *Forum Judicum*, a compilation of Spanish, Roman, and German law, and including Arabic concepts brought to Spain and Portugal in the 8th and 9th centuries. These legal standards were introduced to the New World—the continents of North and South America—by colonizing European powers.

## Spanish Water Law



*William H. Powell, Discovery of the Mississippi by De Soto, 1853, via Architect of the Capitol. Source: lumenlearning.com*

*Las Siete Partidas* is a 13th century code that held that all water, land, and minerals belonged to the Royal Crown, and individual ownership was only possible through a Royal grant. The exception being natural rainfall or water flows not caused by humans may be used without official permission from the sovereign. The top down approach to the allocation of water rights still has impacts today in Spain's former colonies such as Mexico and the United States. The granting of royal permissions to use water for irrigation in colonies so far away ultimately meant the need for delegating this authority to irrigation system managers, which would later evolve into town councils. Through this system, irrigation was managed, while domestic use was unlimited.

Spanish water law developed a system based on the unique needs of colonies in the arid south west of North America, based on the importance of managed irrigation, and priority of use. The general principles of riparian doctrine were not sufficient in much more dry climates as in Spanish colonial America. Gradually, the principles of the "*Ayuntamiento-rules*" in the colonies — that of a town council or municipality — became more influenced by practices from the indigenous peoples that had irrigated the region for centuries before, adapting to their arid environment.

Another aspect of Spanish water law still impacting these regions today are *Pueblo Water Rights*—the granting of water rights from the king of Spain directly to citizens for water that flowed through a town or settlement. Later treaties between the US and Spain granted these water rights to communities such as in the city of Los Angeles with the Los Angeles River, or in San Diego, California and in Las Vegas, Nevada, which are still held today. The side-by-side existence of different —State water rights, pueblo water rights as well

as international agreements with Mexico — creates a more complex legal environment.

Spanish water law has provided unique contributions to the management of water systems today, and is primarily based on the circumstances of arid regions in their former colonies. As can be seen in the US, water law doctrines vary from the Northeast to the Southwest, from English or French common law to Spanish law, alongside local water availability ranging from abundance to scarcity.

## English & French Common Law



Source: [epicworldhistory.blogspot.com](http://epicworldhistory.blogspot.com)

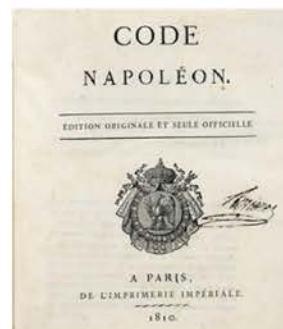
With the jurisprudence precedents from the Justinian Code of Roman Law, English common law settled water disputes through the common application of rulings on similar cases. This case law was applied in the colonies of the British Empire including the eastern United States. It often favored industry, of which water powered mills at that time were an important part. Their productive outputs were valuable to any settlement. This created the conditions for future disputes around the local water rights granted to mills, as they infringed on the navigational use of watercourses.

Riparian doctrine set out that beyond reasonable use, a mill owner should obtain a water right to allow for more excessive use and transformation of a water source. In practice however, these rights were often granted without much consideration for the damages done to riparian landowners either upstream (risk of flooding) or downstream (risk of reduced flow). The early Mill Acts of the US set out to establish rights for mills to encourage their development, as well as a procedure to handle claims of damages. While a mill owner would obtain a lease on the lands on both sides of the stream, a jury could assess damages to injured parties from the mill's creation and operation.

The cases brought about by this process would have lasting impacts, as the mill owners were typically far more powerful figures in the community, and their interests were protected by the greater good of their mills. A few individual farmers whose farmlands were flooded or damaged, were regarded as less important to the public good. The impact of these decisions led many farmers to drain wetlands to develop more farmlands elsewhere, but this too could affect the operation of mills as the water table shifts. As may be clear, there was constant tension between industry and agriculture over water rights.

Concepts such as eminent domain also applied to mill owners, as they could condemn upstream lands to be flooded for the sake of their mill project, provided that fair compensation was paid. Over time, the proliferation of mill dams and the privileges placed on their water rights created blowback as the navigation of watercourses was impacted and fish stocks began to decline rapidly. By the late 1700s, legislation was being passed to declare the common travel principles of waterways, and impose fines on mills that obstructed this. Later, free passage for navigation became federal law. But the political power struggles of the early United States created a system whereby each State developed their own water laws to suit their populations and their climate.

## Development of Riparian Doctrine



Source: [wikimedia.org](http://wikimedia.org)

Another influential aspect of water law was the Code Napoléon, which made its mark on the tapestry of early colonial water laws in the French regions of Louisiana. Like English common law, the Code Napoléon was based on Justinian Code as well as the compiling of Visigoth and English common law, but it further defined riparian water rights, the ownership of stream beds, as well as their navigational uses. On the East coast of the United States, the legal disputes were often between mill owners, fish migration proponents, navigational interests, and injured parties and riparian

water law doctrine under English common law governed those decisions. French common law was applied more in the South, with their own trade interest on the Gulf coast and river lands.

In areas such as the Pacific North West the construction of dams has caused considerable damage to its famous salmon run, which sustains not only salmon populations, but a variety of other wildlife in the region, from bears to wolves to birds, in a balanced ecosystem. Many of the dams being removed are over one hundred years old, installed for various purposes from running mills to trapping fish for hatcheries, which no longer serve a purpose or are considered as structural hazards.

These riparian doctrine principles included 5 basic concepts:

1. Riparian water rights extended to the center of non-navigable streams.
2. Navigable streams (rivers) were owned by the general public and could not be obstructed.
3. The rights to develop milldams belonged to the riparian landowner on either side, and this right could be transferred when a property was sold.
4. Excess water could not be diverted from a stream, and must be returned unimpaired in quantity and quality.
5. Injured riparian landowners could be compensated for injuries.

With these basic concepts in place, the colonies water law structure developed and power dynamics between industrial classes took shape. Conflicts between fishing rights, navigation rights, and mill owners would continue, with sporadic outbreaks of violence that could occur. The inherent conflict between dams, navigation, and fish migration is centuries old, and continues to be a common point of contention in water conflicts today.

### Reasonable Use Doctrine (American Water Law & Westward Expansion)

A landmark ruling to govern such conflicts is *Tyler v. Wilkinson* of 1827 from the US Supreme Court, which defined reasonable use as the use of water without injury to other water users. What constitutes injury was not defined however, so that it may be established in future case law and allow for more varied interpretation on a case-by-case basis. The entire eastern US would end up adopting the principles arising from the *Tyler v. Wilkinson*



Source: [nature.org](https://www.nature.org)

ruling. Specifically, that the owner of a property bordering a stream does not have an ownership right to the water in the stream, but may make reasonable use of the water from the stream by virtue of their properties' location. According to this principle, other riparian landowners should not be harmed by this usage, and they may not harm others either.

As development continued, the allocation of water became more complex, with an increase in different uses, and more and more users. Priorities were established and agreements made between various mills to ensure efficient allocation of water resources so that mills could operate with the greatest efficiency and capacity. However, gradually the demand for mill power outstripped their development.

Diversion rates were established based on the potential horsepower of a river, determined by its gradient or elevation changes. These elevation changes were more common to the geography of the Northeast, while further West, this was less common. This created a difference in regulations in the different areas. Combined with the variety of colonial influences in the early Americas, a patchwork of legal frameworks existed across the United States, Mexico, and Canada, from areas abundant with water resources and hydropower potential, to arid regions with unreliable rainfall. Yet, reasonable-use doctrine permeates most US water law, from watercourses to groundwater or surface water.

Today, the riparian doctrine forms the basis of water law in 31 states in the Eastern US where it has developed in a primarily water-secure and humid environment with relatively little irrigation and where water allocation has not been the primary concern or source of conflict. Two basic principles govern modern riparian doctrine — reasonable use, and correlative

rights. As already mentioned, reasonable-use means no harm or interference occurs from its usage or diversion, and that injury must be proven, and then may be compensated. The correlative rights principle requires riparian parties to share the total flow of a river or stream, with each proportion based on the amount of waterfront property. There is no priority of use in this system, but instead it sets reasonable minimums that remain proportional in times of drought or abundance.

Over time, this riparian system of the East coast came under further strain due to population growth and climate change, including droughts. This caused an increase in disputes. In its place, some authorities have preferred a permit system as it enables them to change or revoke access as needed based on use, need, percolation rates, and climate factors.



Map of the USA showing different systems of water rights  
Source: [extension.okstate.edu](http://extension.okstate.edu) / Cartography Aaron Mittelstet

Meanwhile, towards the arid West, the *prior appropriation* doctrine persists, either under strict regimes such as in the Colorado system, or as part of a hybrid system, as with the 'California Doctrine'. This has primarily been driven by climate considerations, with more scarce water resources in many regions.

*"Seasonal, geographic, and quantitative differences in precipitation caused California's system to develop into a unique blend of two very different kinds of rights: riparian and appropriative. Other types of rights exist in California as well, among them reserved rights (water set aside by the federal government when it reserves land for the public domain) and pueblo rights (a municipal right based on Spanish and Mexican law).*

*Riparian rights usually come with owning a parcel of land that is adjacent to a source of water. With statehood, California adopted the English common law familiar to the eastern seaboard; such law also included the riparian doctrine"* (The Water Rights Process, n.d).

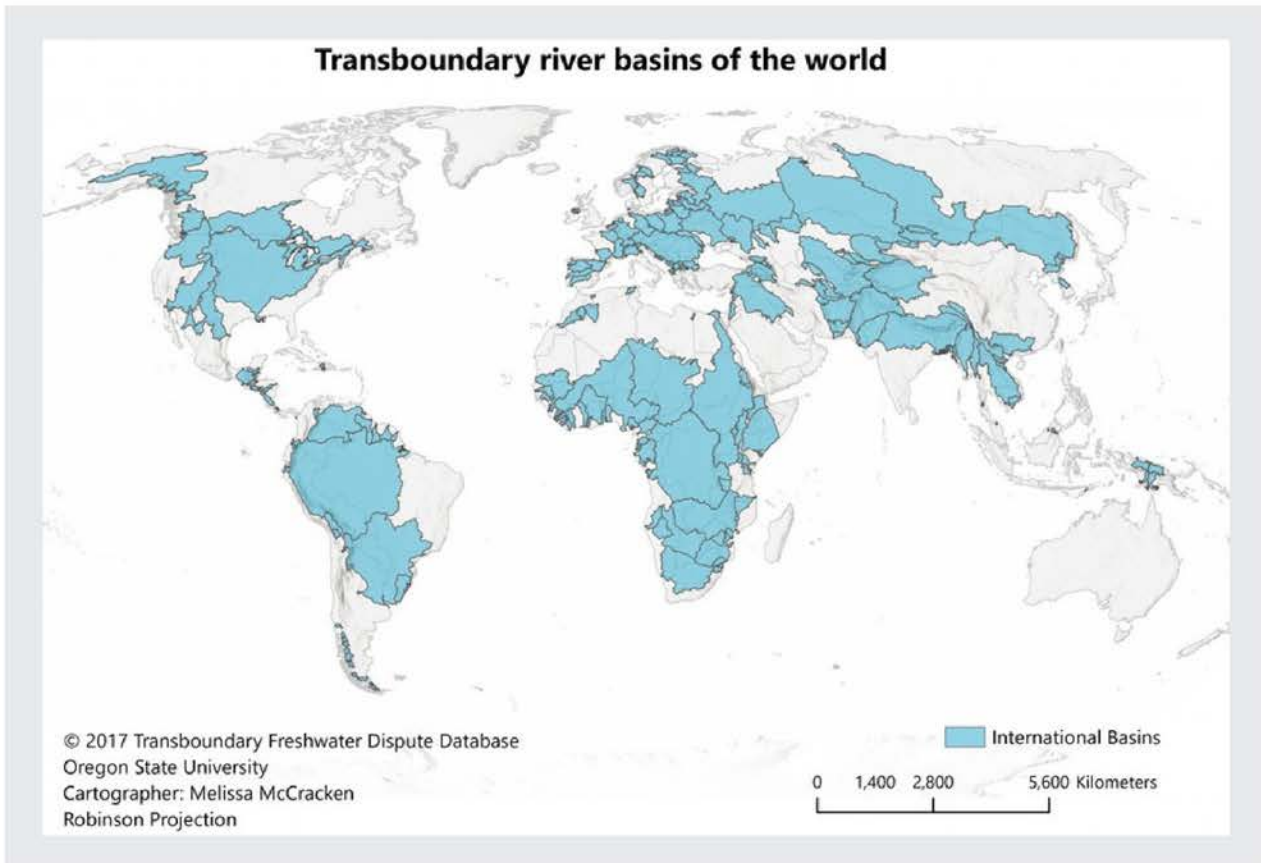
Although the Northwest and Southwest are actually quite different in terms of climate, they share similar doctrines as part of the history of westward state expansion. Colorado is known to have the strictest form, with its direct territorial access to the Colorado river, which other states like California, rely on downstream.

Prior-appropriation provides a specific water allocation based on an amount historically diverted with beneficial use. Those who come later may only make use of the water resources if they do not harm the prior-appropriated rights of those who have come before. It can also be seen as a 'use it or lose it' principle: a failure to use the full water right allotment would bring about the loss of that right if the water user doesn't show sufficient efforts to use this allocated amount of water. This could also promote waste in order to maintain water rights. Alternatively, a fixed amount of water already being used to its maximum capacity would limit expansion or growth potential, as another more junior water right must be obtained in order to obtain additional resources.

*"Riparian rights still have a higher priority than appropriative rights. The priorities of riparian right holders generally carry equal weight; during a drought all share the shortage among themselves"* (The Water Rights Process, n.d).

In practice, many of the canals and irrigation systems that were built in the arid West have been owned by consortiums and investors in private irrigation companies, with stockholders who pay for annual water assessments and system expenses (Cech, 2010). They are then able to withdraw their set percentage of water on any given day. Shortages are shared proportionally by all, and no priority of usage exists with set distributions of water rights that change based upon available seasonal resources.

Absolute territorial sovereignty — a private-property right — aligns with the prior-appropriation doctrine that an individual or a state can fully use any and all of the water in its territorial confines, even if to the detriment of those downstream. Landownership aligns with riparian doctrine and fair-use principles, that all riparian states or individuals whether downstream or upstream, have rights to use the water in an equitable and reasonable way. In international law, the general riparian doctrine has been more supported as a means to prevent and manage conflict between nations over transboundary water resources.



Source: [transboundarywaters.science.oregonstate.edu](http://transboundarywaters.science.oregonstate.edu)

## Modern Legal Aspects of International Waters

Modern legal aspects of international waters are inextricably linked to the development of international law in general, and the specific doctrines of water law developed through the centuries in various regional contexts. Throughout this evolutionary process for both water law and international law, key principles and doctrines have emerged as the preferred, most efficient tools and guiding principles to manage transboundary resources conflicts. This is clearly explained in a report by UNESCO's Intergovernmental Hydrological Programme & World Water Assessment Programme:

*The development of international water law is inseparable from the development of international law in general. Such fundamental principles and basic concepts as the sovereign equality of states, non-interference in matters of exclusive national jurisdiction, responsibility for the breach of state's international obligations, and peaceful settlement of international disputes equally apply in the area governed by international water law.*

*At the same time, this relatively independent branch of*

*international law has developed its own principles and norms specifically tailored to regulate states' conduct in a rather distinct field: the utilization of transboundary water resources. The basic rules are: the right to use waters of the transboundary watercourse located in the territory of the state ("equitable and reasonable utilization"), and a correlative duty to ensure similar rights are enjoyed by co-basin states (Vinogradov, Wouters, & Jones, 2003).*

The principles of water law that have been developed from ancient civilization through the colonial area inform the modern legal frameworks of today that are used to govern international water agreements. Simply, the evolution of water law has informed international water law as well as the development of international law norms. Riparian and Reasonable Use doctrines form the backbone of these contemporary international law principles, which are primarily equitable and reasonable utilization (ERU), and no significant harm (NSH). With these primary guiding principles, there are two main views in the interpretation and application of international water law.



*"The first view considers ERU to be the guiding principle of IWL and subordinates NSH to it, while the second view posits that the two principles are equal, and neither prevails over the other. Both views may be fit for purpose in the daily management of interstate fresh water resources and the prevention of disputes. In the context of resolving ever-increasing transboundary fresh water disputes (TFDs), however, the practical application of the two principles remains unclear, casting doubt on their ability to effectively guide states. This is evident, for instance, in the ongoing dispute between Ethiopia and Egypt concerning the Grand Ethiopian Renaissance Dam. While Ethiopia claims an equitable and reasonable right to build the dam, Egypt maintains its historic right to be free from significant harm that it claims the dam will cause it. The unclear relationship between the two principles thus enables states to cling to contradictory interpretations that suit their unilateral interests, thereby aggravating the dispute rather than resolving it" (Meshel, 2020).*

Fundamental legal agreements or instruments of international water law are: the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention), the International Law Commission's Draft Articles on the Law of Transboundary Aquifers (ILC Draft Articles), and the Convention on the Law of the Non-Navigational Uses of International Watercourses (UN Watercourse Convention or UNWC). These conventions are comprehensive agreements built upon the same doctrines and principles governing the legal management of natural resources.

However, as competing doctrines cannot be housed within the same agreement, choices must be made on what should be the guiding principles within international watercourse agreements in order to best navigate conflicts. Principles such as absolute territorial sovereignty are not conducive to conflict resolution of international resource disputes. Additionally, a fixation on historic use rights or prior appropriation may provide water resource protections for some nations, but they may also harm another's water rights or limit potential development opportunities. The push for more ecosystem or basin-wide approaches to transboundary environmental challenges requires a more holistic outlook towards shared natural resources.

Furthermore, as water law and international law have evolved over time, and new, independent states have emerged from the colonial past, the equitable use

of water resources as defined under prior colonial agreements may not hold relevance to these countries. This brings into question the use of legal claims based on law from colonial era, or from one state to another.

The Riparian Doctrine is the primary principle of the UN Watercourses Convention, with the specific principles of equitable and reasonable use (ERU, Article 5), and no significant harm (NSH, Article 7). The outlook on these two articles can be one of natural coexistence, or one of entrenched conflict. In such case, which article should supersede the other? As will be explored later, parties may refer to either article in competing narratives that are then not easily mitigated.

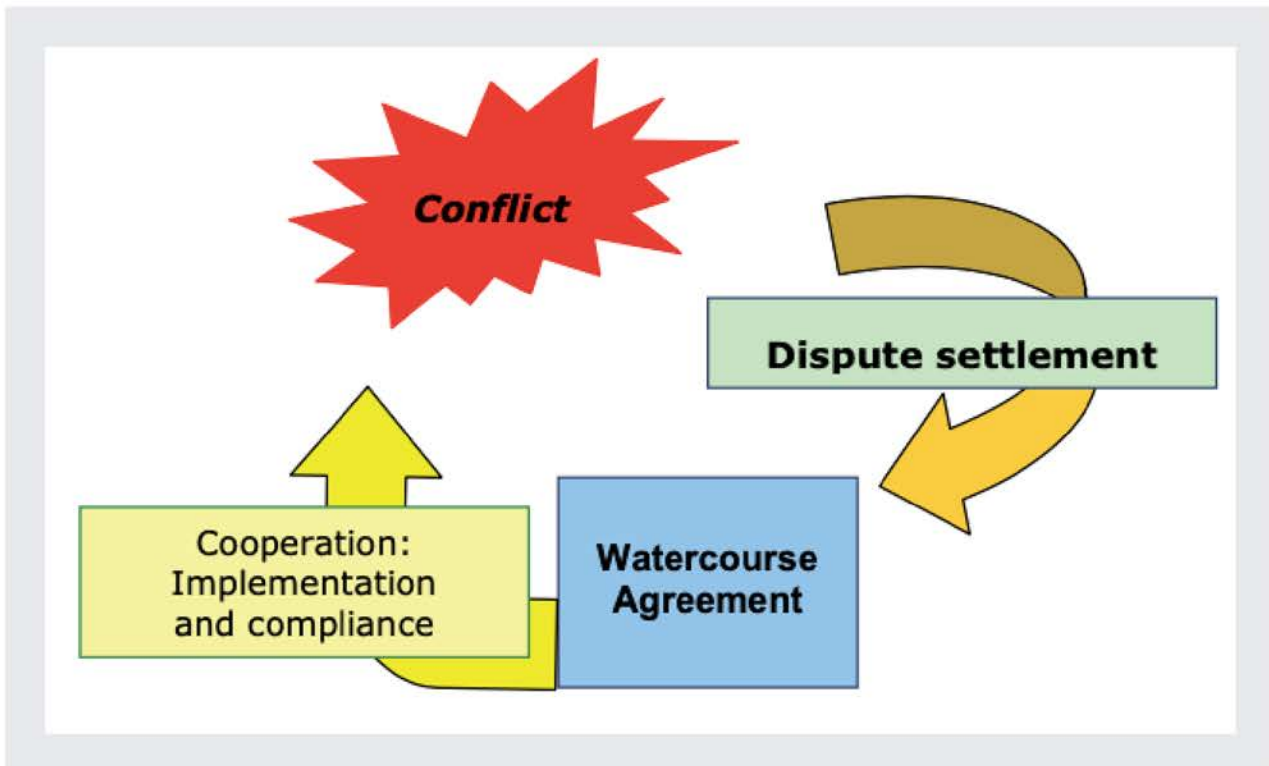
International water law must also consider other bodies of law in a holistic approach, applying the full body of international law to protect water resources. Economic law, environmental law, and human rights law also inform the development and practice of international water law. Including these different disciplines is important but can also create difficulty in trying to develop broad and comprehensive international agreements with a large number of parties. In practice, there is no one size-fits-all institutional or legal framework to govern all transboundary water conflicts.

Furthermore, a wide range of interests must be taken into consideration. The interests of riparian states and other parties, such as private and public investors involved in water infrastructure development, or projects that impact water resources. The interests of individuals, or the community rights of people to have safe and secure access to water resources as a human right. From the local basin level to the international level, competing interests of an over-exploited resource must be accounted for equitably, and with mechanisms for conflict resolution through these levels. Careful management of potential issues is key to preventing international disagreements over water resources. Tough choices must be made on the guiding principles and doctrines that are most effective for the widest application by international organizations.

Whether an agreement is watercourse-specific, a boundary agreement, an umbrella agreement or a dispute resolution instrument, the following issues should be noted: the rights and duties of the agreement (material terms), the term or duration of

the agreement, the implementation requirements (performance) and its flexibility or adaptability (if any). Ideally, the rise of conflict will lead to dispute resolution, which will further inform the watercourse agreement and dispute resolution mechanisms for future conflicts.

Next, we will introduce some transboundary water agreements that utilize these water law doctrines; namely, riparian doctrine, with principles of equitable and reasonable use, and no significant harm. Opposing these principles are absolute territorial sovereignty, historic use rights, or prior-appropriation.



*Transforming Conflict into Cooperation: Legal Mechanisms and Processes. Vinogradov et al (2003)*

## Transboundary Water Law Agreements



Members of the United Nations Security Council sit during a meeting. Shannon Stapleton/Reuters, Source: CFR.org

With nearly 300 transboundary aquifers in the world shared by two or more states, and 263 transboundary river basins, there are many transboundary water law agreements in effect today. With 37 acute water conflict incidences since 1948 compared to 295 international water agreements, the overall trend towards cooperation has been significant (Transboundary waters, n.d). Yet still, almost 2/3rds of these transboundary waters do not have a cooperative management framework, as pointed out in the UN Watercourses Convention User's Guide:

*"Despite these legal developments over the past four decades the international legal architecture regulating international watercourses remains fragmented. The majority of basin-specific agreements are found in multilateral river basins, however most of these agreements are in fact bilateral agreements. Additionally, 158 of the world's 263 international basins lack any type of cooperative framework; and of the 106 basins covered by agreements approximately two-thirds do not include all basin states"* (Rieu-Clarke, Moynihan & Magsig, 2012).

Some of these agreements are more consequential or impactful than others, both in terms of the precedents they set, and their enforcement or ability to guide parties in cases of conflict. For example, the Nile Basin Initiative was formed to help manage the transboundary water issues along the Nile river. It developed the Cooperative Framework Agreement (CFA) agreed by 9 Nile riparian nations, but Egypt and Sudan have not accepted it, leaving the agreement ineffective and of little impact during a conflict, such as that over the Grand Ethiopian Renaissance Dam (GERD).

Transboundary Water Law Agreements must be flexible to allow for adaptability and broad-based support. They must also be enforceable, with mechanisms for dispute resolution, obligations to parties, and clear principles, so that they can identify conflicts, guide parties through them, and enforce their decisions. Yet the more specific and enforceable the agreement, the more hesitant nations may be to sign it and thereby limit their sovereignty. The balance between cooperation, enforcement, and sovereignty is a delicate one, and is one that has not been easily found.

Some of the types of problems in the legal governance of international watercourses are first, those that do not exist, or agree exclusively on delimiting borders, flood control, or are project-based. Some international agreements do not include all members of a basin, which then limits their impact. Other shortcomings can result from being fixed with static allocations that are unsustainable over time, or agreements that do not account for local tributaries to international watercourses. As such, many agreements have developed institutional components, but are lacking in terms of enforcement or definitions of responsibility, due diligence, or emergencies. Further updating and integration into international water law agreements should be considered.

## Key Transboundary Water Agreements

### UN Convention on the Law of the Non-Navigational Uses of International Watercourses (UNWC) (1997)

The UN Watercourses Convention of 1997 is one of the most notable international water law agreements, yet the agreement only entered into force in August 2014, 17 years after its presentation, and with only 37 parties to the Convention to date. The agreement was intended to codify the already prevailing state practices of international water law at that time, and can trace its origins from 1959 and through the “Helsinki Rules”. So why has it been slow to take effect and gain signatories?

The best practices and guiding principles of the UNWC provide two major principles, of equitable and reasonable utilization, and no significant harm. The question of equity is paramount to modern international water law agreements, and must also account for factors such as economic equity and environmental reliance, to determine their reasonable use between states. In trying to balance both the interests of upstream and downstream riparian states, both can find fault in its principles.

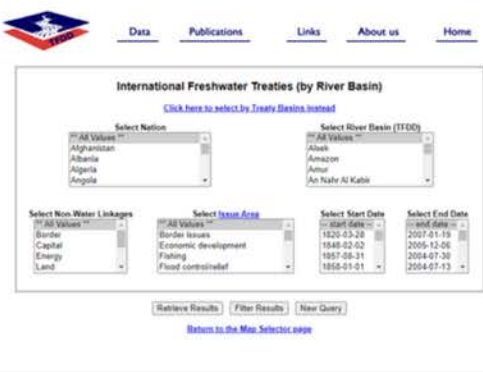
For downstream riparian nations, the worry may be that its historic rights will be harmed and insufficiently compensated. For upstream riparian nations, the claims of downstream nations can disrupt national development plans and priorities, unfairly delegating sovereignty. At the initial vote for the UNWC, key objections from nations such as China exemplified

this. While being supportive of the UNWC’s development in general, China has still not accepted the UNWC due to fears of insufficient protections to its territorial sovereignty, which has many particular geographic advantages. In spite of these adoption difficulties, the very fact that the UNWC was developed out of a call within the UN General Assembly, leading to draft articles developed and arranged by the International Law Commission (ILC) of the United Nations, whose role it is to help develop and codify international law, thereby lends legitimacy to UNWC as a reflection of practices and customary international law.

As will be discussed in detail later, the relation between Article 5 and Article 7 in the UNWC allows it great flexibility, but can also hamper its wider adoption. In some contexts, while conflicting nations may both not official be parties to the UNWC, its principles would be cited in legal arguments.

[Link to True Copy of the UNWC](http://gis.nacse.org/tfdd/treaties.php)

This extensive database of International Freshwater Treaties is hosted by the research group, Northwest Alliance for Computational Science at Oregon State University and is an excellent resource for further information. <http://gis.nacse.org/tfdd/treaties.php>





Ramsar site: Archipel Bolama-Bijagos Ramsar Site in Guinea-Bissau. Source: wikipedia.org

## Ramsar Convention on Wetlands of International Importance (1971)

The Ramsar Convention is an inter-governmental international treaty that provides a framework for the conservation of important wetlands around the world. The Ramsar Convention is both an entity, and a designation for wetlands of international importance, with over 2,300 Ramsar sites covering 2.1 million square kilometers. Alongside this are 18 transboundary Ramsar sites and 15 Ramsar regional initiatives from South America to Asia.

The Convention's mission is 'the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world' (Ramsar,n.d.). International Organization Partners to Ramsar include the International Union for the Conservation of Nature (IUCN), the International Water Management Institute (IWMI), Wetlands International, and the World Wide Fund for Nature (WWF). Amongst others, these partners work with the Conference of Contracting Parties (COP) to implement, support, and uphold the Ramsar Convention, meeting every three years to set priorities, track progress, and form technical advisory groups on selected issues.

In addition to being the facilitator of the COP conference and triennial meetings, the Ramsar

Convention functions as an international organization between these meetings, with a Standing Committee, Scientific and Technical Review Panel, and a Secretariat, working to implement and coordinate activities day to day. With 171 nations as contracting parties to the Ramsar Convention, it is arguably a more broadly accepted convention than the UNWC. However, it does not expressly refer to the rights of wetland communities, making it easier to adopt, but weakening the impact of its implementation.

## UNECE Convention on Protection & Use of Transboundary Watercourses & International Lakes (1992)

The 1992 UNECE watercourses convention is similar to the later 1997 UNWC in many respects, which can lead to some confusion on how they fit together. To clarify, one could be called the Helsinki Convention (HC, 1992), and the other the New York Convention (NYC,1997). The NYC sought to further expand and codify the prior European-based HC, with the minimal levels of acceptance in international law, globalizing the EU agreement (Tanzi, A. 2014).

The 1992 HC provides some more specifics on certain elements regarding transboundary waters and their quality, leading to a more specific emphasis on this aspect. At a basic level, one could view the 1992 HC's language places more focus on water quality issues and the protection of transboundary water resources

while the 1997 NYC is more focused on water apportionment. However, both aspects are inherently connected, as a loss of water resources makes the remaining resources less resilient to pollution. At the outset of the 1997 NYC, which began several decades earlier, the primary concern was apportionment, while pollution would later become a growing problem over time.

Effectively, the 1992 Helsinki Convention functions as a multilateral environmental agreement (MEA), as opposed to a regulation on the competing uses of international watercourses. An MEA is generally supported by meetings of the parties and institutions to help move toward compliance, with less legal requirements on any non-complying members. As per the International Law Commission, the harmonization principle of international law should seek to rationalize the HC and NYC into a unified single set of compatible obligations.

Dispute settlement in the 1992 HC is more advisory compared to the 1997 NYC, with an understanding that the reasons for non-compliance may be more related to a lack of capacity, as opposed to political will or political disagreements. At the heart of the 1992 HC is a non-zero-sum approach to managing international water disputes, harmonizing competing interests, and encouraging cooperation and mutually beneficial planning.

The UNECE Convention continues to have an impact on the global stage as beyond just being a European Convention, but serving as another basis for the customary principles of international water law, which is also open to global signatories since 2013.

### EU Water Framework Directive (2000)

The EU Water Framework Directive is seen as being the first European Directive focused on environmental sustainability, and provides a potential template for future environmental regulations. This framework seeks to harmonize water quality, quantity, and usage of water resources on a broad, regional scale, focusing efforts on natural river-basin management, as opposed to administrative or political boundaries where possible. In particular, the EU WFD sought to replace an individual outcome focused approach with an ecosystem approach that could consider complexity, feedback, and tradeoffs. This has also been a decades long process of European integration to harmonize legal systems

monitoring, standards, and move towards a regional agreement that can be universally applied. Out of this Framework, new directives have been made on various aspects, including drinking water quality, wastewater treatment (secondary biological treatment), and integrated pollution protections, towards a unified legal regime for EU water standards and protections. The Directive sets out to codify what constitutes “good” water, best practices for today, and best practices for the future, using a combined approach while setting timelines to achieve these goals (Nikolaus, V., Arpon, K.D., & Giakoumis, T, 2016).

### Senegal River Water Charter (1972)

This water charter is comprised of two main agreements that govern the Senegal River Basin, namely the Senegal River Convention, and the Organization for the Development of the Senegal River (OMVS) Convention. The OMVS is charged as the primary entity for the river basin, with full legal capacity and powers to enter contracts, manage property and finances, and institute legal proceedings. The member states that make up the high council granting this power are Mali, Mauritania, and Senegal, who each touch on the Senegal River Basin.

Within this structure, which can be changed and reallocated as per the agreement of its representative higher council, a Permanent Water Commission allocates water rights between member states, and stratified by sectors. The Conference governing the OMVS and the overall Basin is chaired by each member state on a rotating basis of two years. All disputes must be handled via mediation between member states, first directly, and then by the Commission of Mediation, Conciliation, and Arbitration of the Organization of African Unity, if no resolution is found. The African Unity Commission's decisions can be appealed at the International Court of Justice (Senegal River Basin, n.d.).

## International Boundary Convention between the United States of America and Mexico (1889)

This boundary agreement addresses the management of water resources between the US and Mexico, and is implemented by the International Boundary & Water Commission, with both US and Mexican sections to the organization. This entity is also the mechanism for addressing transboundary water disputes between the US and Mexico—for example regarding pollution. The US and Mexican sections operate as independent government agencies, each making up ½ of the binational commission. The organization has two websites, with a US section in English only, and a Mexican section in Spanish only. This split has led to failures of effective communication and disputes between the parties, for example over infrastructure.

## Framework Agreement on the Sava River Basin (2001)

The Sava River Initiative process began after the dissolution of former soviet states in the 1990s, and the establishment of the Stability Pact for South-Eastern Europe. Formed in 2001 between the nations of Bosnia and Herzegovina, Republic of Croatia, Republic of Slovenia and Federal Republic of Yugoslavia, the framework agreement set out to address the management of transboundary impacts in the Sava River Basin and develop a water regime to ensure quality and availability. The (joint) International Sava River Basin Commission (ISRBC) was created as an implementing body of the Framework Agreement on the Sava River Basin (FASRB), with the legal status of an international organization (The Sava Commission, 2008).

The agreement came about remarkably fast for international agreements and was completed within a year. The FASRB is a unique international agreement, which integrates all aspects of water resources management.

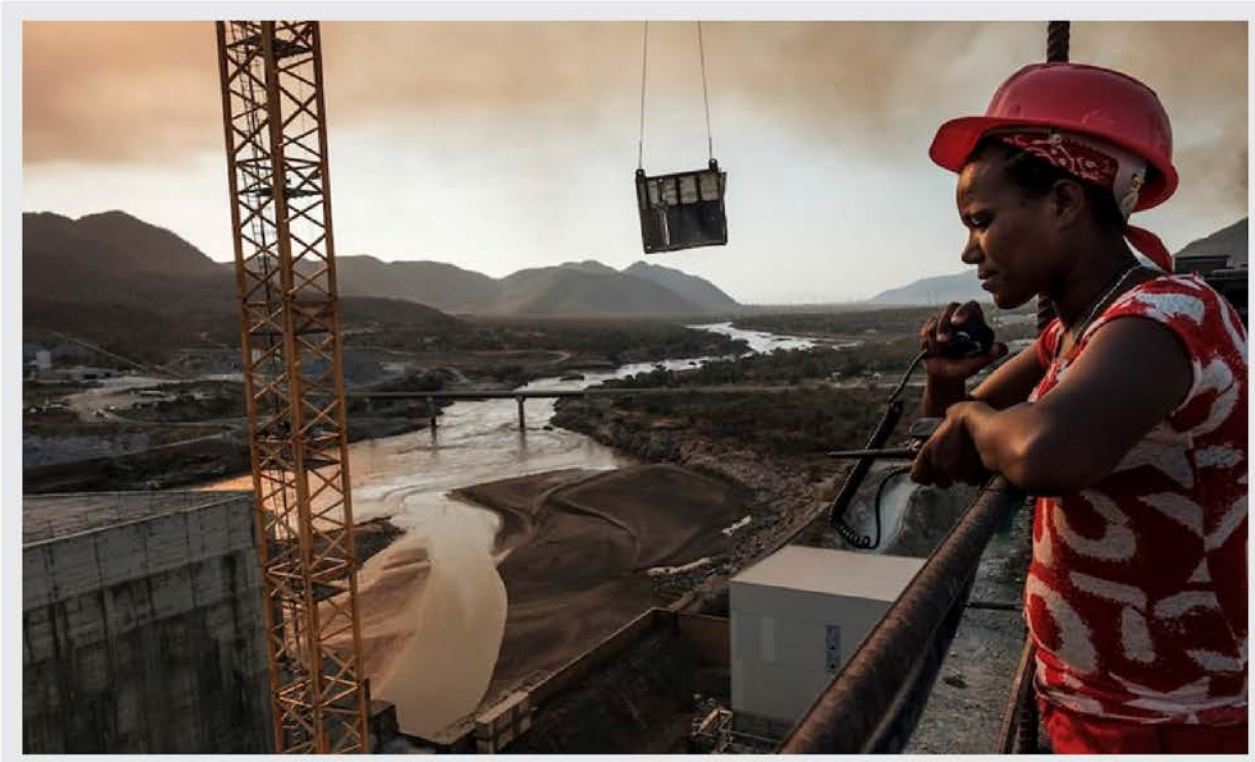
## African Convention on the Conservation of Nature and Natural Resources (1968)

The African Convention was considered to be the most forward-looking regional agreement of its time, when adopted in 1968 in Algiers. It helped to establish international environmental law in Africa, calling for

the integration of development and environmental concerns to pursue sustainable development in a coordinated fashion. It covers land, soil and water as well as biological diversity, with a focus on sustainable and coordinated actions, enforced with mechanisms such as Environmental Impact Assessments (EIA) and monitoring and evaluation (Steiner, A. 2004).

The original 1968 convention established a basis for newer nations to conserve their natural resources, but it lacked institutional mechanisms, or means of encouraging compliance or enforcement. That is why the African Convention was updated after decades of changes international law with the 2003 Revision, under the auspices of the African Union. The update and revision of the African Convention began in 1981, and took 22 years. It remains as a regional multilateral environmental agreement, as the principal vehicle for addressing issues and taking action with respect to environmental issues.

## Transboundary Water Law Conflicts



*A radio operator at the Grand Ethiopian Renaissance Dam (GERD), near Guba in Ethiopia, December 2019. Eduardo Soteras / AFP. Source: crisisgroup.org*

Today there are a number of international water law disputes that persist despite the evolution of legal doctrines and the weight of international law in the global community, as discussed herein. Such disputes can remain intractable as individual State interests outweigh the collective interest, between States, or regionally. Transboundary water problems are both multi-criteria and multi-participant problems. The interpretation of doctrines and principles from international law with a unilateral interest vantage point can create competing narratives that are irreconcilable.

The most prominent example of this today is the Grand Ethiopian Renaissance Dam (GERD), and the disagreement between Egypt, Ethiopia, and Sudan. The legal nature of this disagreement is two-fold; first, applying modern principles of fair-use, or equitable and reasonable utilization (ERU), and the riparian right to no significant harm (NSH) (Meshel, T, 2020); second, the application of historic agreements from the colonial era which don't take into account recent economic developments, population growth and changing demand for water and from which some basin countries are excluded.

*"The years long dispute over the GERD on the Blue Nile pits Ethiopia's desire to become a major power exporter and pull millions out of poverty against Egypt's concern that the dam will curtail its critical share of the river if filled too quickly."* (Magdy, 2020, APNews)

Which principle should supersede the other in order to guide states towards the most optimal outcomes in transboundary water law conflicts? One argument is for the NSH principle to be the guiding principle in transboundary disputes wherever ERU and NSH are in conflict, due to the balancing factor of its due diligence standard. This shifts the viewpoint from the negative duty of avoiding "harm" to a positive duty of taking concrete steps in avoidance of harm (Bruneel, n.d.).

The center of the dispute, the Nile river, is largely governed by key rules of international law, which are derived from the UN Watercourses Convention (UNWC). However, the UNWC only had enough ratifying nations to come into force since August 2014, with the GERD project already underway years earlier. Prior to this, the Nile Basin Initiative produced the Cooperative Framework Agreement (CFA), which



agreed to utilize more of the Nile's water resources. Egypt and Sudan rejected this, and Egypt is both the most reliant on the Nile, and the farthest downstream. Furthermore, neither Egypt nor Ethiopia are parties to the UNWC, but it is generally considered to be a true accounting of international law customs with respect to transboundary watercourses.

As previously mentioned, the core principles of the UNWC are the ERU (fair-use) and NSH (no harm) principles of Articles 5 and 7 of the Convention.

Another argument could be made under prior appropriation, which coupled with the claim of Egypt using the entirety of the Nile's waters, would effectively mean no upstream riparian state could utilize the Nile's water without interfering with Egypt's prior rights from historical usage. This interpretation of water rights is convenient for downstream states who are susceptible to interference from upstream states, but can easily run against equitable and reasonable use principles.



*A Friendly Power in Egypt, 1906, From Cassell's Illustrated History of England, Vol III. The Print Collector/Getty Images  
Source: Irishtimes.com*

Together, these principles should compel states to find solutions that are agreeable and equitable, sustainably exploiting their shared water resources without creating harm to downstream riparian states. In practice for the GERD, both parties claim one principle against the other.

Egypt's claim dates back to 1902, citing a treaty between Ethiopia and colonial Great Britain whereby Ethiopia gives up any rights to the Nile and agrees not to harm water availability to Egypt. Although Egypt in its current form did not exist at the time, it was a British Protectorate at the time of the treaty, and is the 3rd-party benefactor, which carries over to today. In addition to this historic claim, Article 7 of the UNWC on NSH would mean that Egypt can dictate development upstream, and in effect carries exclusive rights to development and exploitation of the Nile.

Subsequent treaties between Egypt and Sudan in 1929 and 1959 further divided up the Nile's water between these two states, first under British supervision as Protectorates, and later as independent states in the Nile Waters Agreement of 1959. However, the nine other basin states were not parties to these agreements, including Ethiopia, where the source of the Blue Nile resides.

Further to this divide, the upstream riparian nations agreed to the Cooperative Framework Agreement (CFA), created within the Nile Basin Initiative (NBI) formed in 1999. The NBI was tasked with developing an updated and permanent legal and institutional framework that could manage the Nile's water resources, and mitigate potential conflicts between states.

*"The CFA was ready for signature beginning May 10, 2010; Burundi, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda have signed it; and the Ethiopian parliament has ratified it. However, arguing that their "acquired rights" to the waters of the Nile River would not be protected, Egypt and Sudan immediately registered their intention not to sign the agreement because they objected to the wording of Article 14(b): "Nile Basin States therefore agree, in a spirit of cooperation: . . . (b) not to significantly affect the water security of any other Nile Basin State." They then proposed an alternative wording for Article 14(b): "Nile Basin States therefore agree, in a spirit of cooperation: . . . (b) not to significantly affect the water security and current uses and rights of any other Nile Basin State," (emphasis added). This wording was rejected by the upstream riparian states, who argue that "the current uses and rights" phrasing would entrench the concept of prior rights, including those created by the Nile Waters Agreements and effectively retain the inequity and unfairness that has characterized the allocation and utilization of water in the Nile River Basin since the 1920s" (Kimenyi, Mbaku, 2015)*

Consequently, Ethiopia rejects the use of a 1902 treaty with a former colonial power, and cites UNWC Article 5 towards its rights for reasonable utilization. There are several issues with citing the 1902 Treaty between Ethiopia and the United Kingdom, including differences in the language of the treaty between English and Amharic versions, or that the intent was to disclaim all use of the Nile's waters. In addition, Ethiopia has traditionally adhered to Absolute Territorial Sovereignty — namely, that it can exploit the Nile's water resources in its own territory unimpeded, as its own sovereign jurisdiction. This would include all of the Blue Nile and the Atbara River.

The competing views regarding Article 7 against harm, and Article 5 for reasonable use also impact these historical arguments from both nations. Prior appropriation as claimed by Egypt is undermined by Article 5 on reasonable use, as it precludes Ethiopia from precisely that, reasonable use of the waters in its territory. Therefore, a riparian approach is called for by the UNWC requiring equal rights of usage, without harm. This leaves Article 7 (NSH), and the proactive conduct to prevent harm to downstream riparian states.

In summation, the legal materials at play are the UN Watercourses Convention, the 1902 treaty between Great Britain and Ethiopia (unratified), the 1929 & 1959 treaties between Egypt and Sudan, in addition to the appropriation doctrine, the Harmon doctrine, the Vienna Convention on Succession of States, the Nyerere doctrine (clean-slate), customary international law, and international water law jurisprudence from relevant court cases. This is a lot to consider;

*"(...) even if the Convention were the sole binding international legal document available to resolve the conflict between Egypt and Ethiopia, the Convention's two core articles — Article 5 and 7 — leave sufficient ambiguity to permit both states to view the Convention as supportive of their respective legal positions. Simply stated, there is no binding principle of international law that compels a particular result for the parties." (Adebe, 2014)*

The resolution of Egypt and Ethiopia's competing claims to the Nile river cannot be solved by conflict, be it directly or through proxies. The two nations must come to an agreeable framework that addresses the needs of each, balancing the benefits between electricity generation in Ethiopia, and water security in Egypt. Greater coordination and communication on water flow and management of the Nile are required, alongside an economic outlook of the benefits and how they can be shared under an agreed legal regime.

## Indus Water Treaty - India & Pakistan



Map of the Indus River Basin. Source: Wikipedia

The Indus Water Treaty is a water-distribution treaty brokered between India and Pakistan by the World Bank in 1960. In spite of tensions and military conflicts since this time, there have been no specific water conflicts between India and Pakistan. This would make it one of the most successful water agreements to date. However, it may not be able to continue to hold up with time.

The Indus river is one of the most impacted transboundary river basins in the world due to climate change. While 60% of the world's water sits on transboundary waters, only 40% of these have basin agreements, which allow for better planning and management of natural resources. Many of these agreements were made before climate change was ever a household idea. This is true in the case of the Indus Water Treaty as well.

India and Pakistan share the majority of water resources of the Indus river basin as governed by the Indus Water Treaty (IWT). As discussed in the paper by Qamar, Azmat & Claps (2019) "with the World Bank being the guarantor, the treaty after being signed, survived three wars, expeditious decolonization, and disproportional geographical development."

Climate change has posed a new challenge to this River Basin, which the legal order governing the basin could not have considered at the time. Furthermore, greater development of hydropower resources is calling into question some of the IWT's provisions.

The water flow of the Indus River has fallen 5% in the last 50 years, and is expected to continue to fall another 30-40% in the future. Coupled with rampant population growth in both nations, hostile relations, and the build-up of nuclear arsenals in both countries since its adoption, the potential for local water conflicts to spiral into national emergencies and geopolitical crises is rising. Increasing demand and dwindling supplies spells potential disaster with the IWT as a focal point for this conflict. India has threatened to take unilateral action to dissolve the treaty, while Pakistan declared that any such unilateral move amounts to an act of war (Qamar, Azmat & Claps, 2019)

The IWT divided the water resources of the Eastern and Western Rivers between India and Pakistan, with Eastern rivers towards the south going to India, and Western rivers further north going to Pakistan.

This required further investments for water canals and infrastructure in order to implement Pakistan's new claim to Western rivers, while giving up rights to Eastern rivers. For the last several decades, this has been sufficient to allow for fair usage and exploitation of the Indus water resources without much concern.

In recent years however, with increasing conflicts over the Kashmir region where the Indus flows through, and the increasing non-consumptive development for hydropower and storage along the tributary rivers, the agreement is showing cracks.

A clear example of this concerns the "excess" river flow from the Eastern Rivers for India, that flowed into Pakistan. While India was granted 100% of that water flow, in practice, 10% or more of the flow has always gone to Pakistan, which has relied on this water for irrigation in periods of drought and in a heavily agricultural economy. As such, the declaration by India that now all of this water will be captured, redirected, and only used for Indian citizens, represents a sudden and serious reduction in available water resources for Pakistan. This water has been important for Pakistan, but it is not included in the 1960 IWT agreement (Johnson, 2019).

The structural shortfalls of the 1960 Indus Water Treaty needs a modern refresh that can deal with current disputes and demographic challenges, and that thoughtfully considers climate change adaptation. More data sharing is necessary with an emphasis on the equitable reasonable use and no significant harm principles. In addition, specific dispute resolution mechanisms and institutional means of constant contact and communication are valuable components for a successful transboundary water agreement. This is prevented by a lack of political will in light of other conflicts that have taken precedence.

## CASE STUDY

### UN Watercourses Convention

As we have seen thus far taking an overview of the development of international water law, one of the most consequential and controversial multilateral legal frameworks on transboundary water governance is the UN Watercourses Convention (UNWC) of 1997. The development of the UNWC has been an evolution of water law doctrines, of international norms and multilateral agreements, and has actually been in the making for over 50 years now.

Although officially adopted in 1997, the UNWC implementation and ratification process is also still ongoing today. The process of its formation can be traced to 1959 with a UN resolution submitted by Bolivia on the use of international rivers (UN res. 1401). This led in 1970 to the UN recommending the International Law Commission (ILC) to study non-navigational uses of international watercourses (UN res. 2669), which it did until 1994, pulling together legal research and various proposed articles and standards. The ILC thereby developed the Draft Articles of the UNWC in 1994, drawing upon the international legal frameworks, norms, principles, and agreements up to that period. The draft Convention was created from the basis of those Draft Articles, with a final text voted on in May 1997.

The UNWC is a “a flexible and overarching global legal framework that establishes basic standards and rules for cooperation between watercourse states on the use, management, and protection of international watercourses.”(Loures, Flavia et al. 2015)

As noted, many agreements have been introduced and evolved over this time, on a smaller scale, or without much enforcement. The Helsinki Rules (1966), Montreal Rules, and Seoul Rules on groundwater, the UNECE’s Convention draft protocols, the SADC protocols (1995) the Mekong Agreement (1995), and influential bilateral agreements such as the 1991 Protocol on Common Water Resources between Argentina and Chile, all gave precedence and influence to the formation of the UNWC (Eckstein, 2002).

The vote to adopt resulted in 103 nations in favor, with 3 against, 27 abstaining, and 33 absent. However,

by 2000, only 8 nations had ratified the agreement while 10 more had signed on. A non-binding resolution or declaration could have been passed instead, but the UNWC was developed and agreed, indicating it had wide support. Yet today in 2020, it is still a question of what influence the UNWC truly holds in international water law and transboundary water diplomacy, as the majority of nations have still not adopted the UNWC itself.

*“Despite the hopes and promises of the Watercourses Convention, nearly fifty years after its initial instigation at the United Nations, more than 20 years following its adoption by the UNGA, and over 5 years after it came into force, enthusiasm for that instrument appears to have waned. Although the Watercourses Convention is now in force for the states that have ratified it, it only attained that status following seventeen years of relatively slow progress with the bare minimum of 35 ratifying parties required. Moreover, despite continued encouragement by various non governmental and intergovernmental organizations, few new states seem poised to accede to the agreement” (Eckstein, 2020)*

### Current Parties to the UNWC

Benin, Burkina Faso, Chad, Côte d'Ivoire, Denmark, Finland, France, Germany, Greece, Guinea-Bissau, Hungary, Iraq, Italy, Jordan, Lebanon, Libya, Luxembourg, Morocco, Namibia, Netherlands, Nigeria, Norway, Paraguay, Portugal, Qatar, South Africa, Spain, Sweden, Syrian Arab Republic, Tunisia, Uzbekistan, Venezuela, Yemen.

## UNWC Vote by Watercourse

### **Tigris and Euphrates Rivers:**

While Syria and Iran backed the Convention, Turkey voted against the text (upstream of both Syria and Iran). Iraq was not recorded as participating in the vote.

### **Nile River:**

In a watercourse that traverses North Africa and the sub-Saharan Africa geographic regions, only Kenya and the Sudan voted in favour of the Convention. Seven other riparian states abstained, while Burundi opposed the text outright.

### **Niger and Volta Rivers:**

Three states voted in favour, two abstained, and three were absent, including Niger and Nigeria. Chad and the Central African Republic did not participate in the vote.

### **Limpopo River:**

Three of the four riparian states – Botswana, Mozambique and South Africa – voted for the text, while the fourth, Zimbabwe, was absent from the vote.

### **Orange River:**

All four riparian states – Botswana, Lesotho, Namibia and South Africa – voted for the Convention.

### **Zambezi River:**

Angola, Botswana, Malawi, Mozambique and Zambia backed the Convention, while Tanzania abstained, and Zimbabwe was absent.

### **Indus, Ganges, Brahmaputra and Mahakali Rivers:**

Nepal and Bangladesh voted in favour of the text, while Pakistan and India both abstained. Bhutan was absent from the vote.

### **Mekong River:**

Cambodia, Laos, Thailand and Vietnam voted in favour of the text, while China submitted one of only three votes against the Convention. Myanmar was absent from the vote.

### **Syr Darya, AmuDarya and Aral Sea:**

Kazakhstan voted for the Convention and Uzbekistan abstained, while Afghanistan, Tajikistan and Turkmenistan were formal absentees. Kyrgyzstan was not recorded as participating.

### **Danube River:**

Of ten riparian states, seven vote in favour of the text. Bulgaria abstained, while Yugoslavia (Serbia-Montenegro) and Moldova did not participate in the vote.

### **Rhine River:**

While France abstained, and Switzerland is not a member of the UN, the remaining six riparian states voted in favour of the Convention text.

### **Colorado River and Rio Grande:**

Both Mexico and the US voted in favour of the Convention.

### **Columbia River:**

Both Canada and the US voted in favour of the Convention.

### **Amazon River:**

Brazil, Guyana, Suriname and Venezuela backed the Convention, while Bolivia, Peru, Colombia and Ecuador abstained.

### **La Plata and Paraguay Rivers:**

Brazil and Uruguay supported the Convention while Argentina, Bolivia and Paraguay abstained.

In spite of the seemingly slow rollout of such a landmark international agreement, the UNWC is still influencing the international water relations of countries that are not party to it. For example, both Egypt and Ethiopia are appealing to Articles of the UNWC in their defense or objection to the GERD project.

The fact that two nations in conflict can cite different UNWC Articles meant to work in harmony, and use them in opposition to each other, shows both the shortcomings of the UNWC for guidance in conflict resolution, and a potential reason for its slow acceptance. Yet the widely agreed principles it is supporting, are still impactful just the same, and the UNWC still carries weight as an international agreement.

## Key Provisions of the UNWC

The UNWC sought to set out the rights and obligations of countries sharing water resources, and to supplement, facilitate, and sustain transboundary water cooperation through its provisions. These would address legal weaknesses, provide policy guidance, help level the playing field, and account for social and environmental factors, while aiding other multilateral and bilateral institutions in watercourse agreements

## Defining Watercourses - Towards an Ecosystem Approach

The Articles of the UNWC are also significant in that they lay out a wide definition of international watercourses that include a basin wide approach, as opposed to just the navigable waterways themselves. It defines a watercourse as a single unit of surface, and underground waters that includes the main river, its tributaries and distributaries, and any connected lakes, wetlands, and aquifers. The most expansive definition helps to take a broader approach with respect to international watercourses, while accounting for complexity and ecosystem interactions. For example, land pollution that can affect surface or groundwaters, would also be covered by the UNWC.

## Article 5 - Equitable Reasonable Utilization (ERU)

Since the UNWC has been developed Article 5 has widely been considered its cornerstone provision and the best reflection of law in the field overall. The equitable and reasonable use outlook also combines sustainable development, as in order for a state's use to be deemed equitable, it must be sustainable for all parties. Furthermore, what is equitable today may change with circumstances, and no longer be equitable in the future.

Specifically, the principle requires that a State sharing an international watercourse utilize it in a manner that is equitable and reasonable to other parties sharing the watercourse, and must take into account all relevant factors to ensure this is met. The UNWC also provides more context to this Article with an indicative list of relevant factors for balancing the competing interests of riparian states. In addition, it provides a special consideration for vital human needs, and providing enough water to sustain life and protect food resources.

That the ERU can be used for both water quantity and quality is due to the legal weight behind equity and its connection to sustainable development, which is a primary reason why it is seen as the cornerstone of the UNWC, and of the application of international water law in general. Equitable use vis-à-vis other users, would also imply no significant harm is being done. However, the UNWC further addresses this principle specifically in a separate Article, which should in theory further support the ERU principle, but in practice, could be applied against it as well.

## Article 7 - No Significant Harm (NSH)

The second major principle from the UNWC is Article 7 on No Significant Harm, which goes a bit further than the ERU principal in that it places a burden of responsibility onto the user of shared watercourses, to take every available measure to prevent doing harm. In one sense, the ERU principle helps to foster cooperation and prevent conflict, while the NSH principle can better deal with conflict resolution, and serve as a guiding principle once conflict has occurred. In tandem, they express that equitable use will not cause significant harm.

The NSH principle of the UNWC also provides further guidance on the relevant factors to consider, in order to ensure that no significant harm is being done. This is something that could be further illuminated by such conflicts as the GERD project dispute — but since both parties are not a party to it, neither is really proving a specific Article in a relevant court that would help to inform the jurisprudence of the UNWC. It may be, that the NSH principle does not work in Egypt's favor with its emphasis on "historic" rights and no harm to those historic rights, which are practically absolute. In addition, a court may find that Ethiopia's use under ERU is granted, but the very question of how quickly to fill the dam may side with Egypt's objections. Instead, both parties claim their chosen principle of international law, and no specific agreement has been made.

The NSH rule has been around as a general rule throughout the evolution of international water law, but has taken a backseat to the ERU principle during the evolution of the UNWC, from the Helsinki rules in 1966, to the Draft Articles developed by the UN-ILC.

*Thus, while the Helsinki Rules confirmed the existence of a broad no harm principle in international law, they did not treat it as determinative in the use of shared fresh water resources, instead subjecting such use to the equitable and reasonable utilization principle. The evolution of the Draft Articles in the work of the ILC, which became the foundation for the UNWC, further reflects the inconsistent approach to the relationship between the equitable and reasonable utilization and no harm principles in international water law. The ILC's first attempt to formulate these principles in 1981 clearly stated that equitable and reasonable utilization was the primary principle of international water law, to which the "no appreciable harm" principle had to yield. However, this approach changed the following year and, while the equitable and reasonable utilization principle was still endorsed, "no appreciable harm" became the dominant rule once more, and "was not to yield to considerations of equity and reasonableness in the sharing of the uses of the waters" (Meshel, 2020)*

The result of these ILC evolutions of the NSH principle over time, have actually helped to make it more useful in terms of guidance in the end. By being refocused, the NSH principle requires an obligation to actively ensure no harm is done, rather than a duty to simply refrain from doing harm. It is proactive, as opposed to passive.

The lack of an objective standard within ERU, which must be assessed on a case-by-case basis, and the understood subversion of the NSH rule to the ERU, has also meant that the UNWC is less precise in its guidance in the midst of conflict between these rules. As "no harm" is only one determination in a wider consideration of equitable use. The courts have provided little guidance on how these two competing principles should be applied simultaneously. In the 1997 Gabcikovo-Nagymaros dispute the ICJ prioritized the ERU principle over NSH, calling it the guiding principle of international water law, with no direct reference to NSH despite its usage in the proceedings. In the 2010 Pulp Mills case the ICJ cited the NSH rule, in that equitable use could not be established if the interests of other riparian states were not factored in, both in terms of harm from pollution, or harms in type of usage. In 2012 on the Indus River arbitration, again the NSH principle was cited as an obligation under international water law. Both are therefore key principles of international water law, but NSH has typically been applied as a factor of ERU, and therefore subservient to it.

These two key principles of ERU and NSH form the bedrock of international water law—but the lack of clarity on their dual application towards present conflicts undermines their effectiveness. It also undermines the ascension of the UNWC as common standard to be widely accepted in transboundary water regimes. With further adoption and clarification, more jurisprudence can help to establish clearer guidance in the legal resolution of transboundary water conflicts.



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## Sources for Further Learning

### Organisations

International Court of Justice - <https://www.icj-cij.org/en>

International Water Law Project (IWLP) - <https://www.internationalwaterlaw.org/>

Permanent Court of Arbitration - <https://pca-cpa.org/en/home/>

Ramsar Convention on Wetlands - <https://www.ramsar.org/>

United Nations International Law Commission - <https://legal.un.org/ilc/>

UN - Uphold International Law - <https://www.un.org/en/sections/what-we-do/uphold-international-law/index.html>

European Commission - [https://ec.europa.eu/environment/water/water-framework/index\\_en.html](https://ec.europa.eu/environment/water/water-framework/index_en.html)

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Stephen C. McCaffrey (2008) Convention on the Law of the Non-Navigational Uses of International Watercourses, United Nations Audiovisual Library of International Law, <https://legal.un.org/avl/ha/clnuiw/clnuiw.html>

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<https://global.oup.com/academic/product/the-law-of-international-watercourses-9780198736929>

*Environmental History of Water: Global View of Community Water Supply and Sanitation* by Petri S. Juuti, Tapio S. Katko, and Heikki S. Vuorinen published by IWA Publishing <https://www.iwapublishing.com/news/brief-history-water-and-health-ancient-civilizations-modern-times>

### Webpages

India to block Kashmir water supply from Pakistan - <https://www.youtube.com/watch?v=1QhfKOWfjBs>

Ethiopia to fill Nile dam in July even if 'no agreement reached' - <https://www.aljazeera.com/news/2020/06/ethiopia-fill-nile-dam-july-agreement-reached-200626085142188.html>

## Acknowledgements

MEDRC's Transboundary Waters Practitioner Briefing series has been developed for industry practitioners and government officials at the request of MEDRC's member countries, with sponsorship provided by the Netherlands and Sweden. The briefings are meant to be informative and practical, providing an overview of the subject matter material, while remaining accessible to various backgrounds and disciplines. The briefings serve to develop shared knowledge and serve as a basis for further discussions between partners. If you would like to learn more about these subjects, please see the section 'Sources for Further Learning'.