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Rivers

A Regal River Runs Dry

Rising from the snow-capped San Juan Range of Colorado's Rocky Mountains, the Rio Grande River descends through New Mexico, nips the western tip of Texas, then snakes eastward, marking the Mexico–US border for hundreds of miles before finally emptying into the Gulf of Mexico. In the sixteenth century, Spanish explorers christened the Rio Grande "the Fierce River of the North" (*El Rio Bravo del Norte*) out of respect for the turbulent cataracts in its upper reaches. These days, however, the once-regal river has been dethroned by a confluence of forces. Explosive population growth, increasing demand for irrigation and industrial uses, a decades-long "mega-drought," and rising temperatures attributed to climate change have conspired to dramatically diminish the river's flow. In June 2021, observers watched with horror as New Mexico's Elephant Butte Reservoir, which had brimmed over during the 1980s and 1990s, dropped to a paltry 5 percent of its full capacity. Other reservoirs that feed the Rio Grande have experienced similar distress due to rising temperatures and growing demand, forcing regulators in Mexico and the United States to adopt extreme rationing policies that restrict the lower basin to about 2 percent of its historic annual flow. Residents of Albuquerque, El Paso, and Ciudad Juarez have seen the Rio Grande run dry for longer periods each year, its mirrored surface replaced with a parched sandbar.[1]

Dwindling fresh water threatens vital interests on both sides of the Mexico–US border. Over six million people rely on the Rio Grande and its tributaries for agriculture, industry, and municipal uses, and

[1] See Di Minardi, 'A River Used to Run Through It: How New Mexico Handles a Dwindling Rio Grande', The Guardian, 12 January 2021; Danielle Prokop, 'Western Rivers and the Binational Climate Challenge', El Paso Matters, 7 September 2021.

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population centers in the region continue to expand. In the past, farmers in southern New Mexico and El Paso County could count on forty inches of water to irrigate their onions, corn, and green peppers; by 2021, some received as little as four inches. Across the border, Mexican pecan growers have complained likewise that water rationing is imperiling their groves.[2] Less water to go around means fewer acres of arable farmland, shorter growing seasons, and mounting pressure to transition to more drought-resistant (but generally less lucrative) crops – all of which equates to fewer jobs and diminishing profits. Meanwhile, ecologists have expressed concern that hydroelectric dams are imperiling the basin's flora and fauna. Hundreds of native plants and animals have been decimated by the region's changing ecology, including the endangered silvery minnow and cottonwood trees that have evolved to rely on the basin's natural hydrological cycle.[3] To make matters worse, scientists predict that current drought conditions are likely to get worse over time, as climate change continues to dry out the Rio Grande basin while inundating other regions with floods and hurricanes.[4] As the fresh water crisis in the Rio Grande Basin has dragged on, regulators on both sides of the border have confronted difficult tradeoffs regarding the competing interests of farmers, industrialists, and ordinary residents, as well as the moral imperative to practice prudent stewardship of the natural environment.

If these domestic policy dilemmas were not daunting enough, the crisis at the Rio Grande also poses a serious diplomatic challenge. Because the river passes through and collects tributary water from both Mexico and the United States, both states have legitimate claims to the river's limited flow. This clash of national interests might appear to be a recipe for intractable conflict or hegemonic domination. Yet, remarkably, the opposite is true: for well over a century, the Rio Grande has emerged as a success story for international cooperation. Even as climate change has depleted reservoirs, raising the political and economic stakes on both

[2] Lauren Villagran, 'Gov. Abbott: Mexico Owes Texas a Year's Worth of Rio Grande Water', El Paso Times, 21 September 2020.

[3] Minardi, 'A River Used to Run Through It'; Erick S. Albarran, 'A Drying River', Medium, 22 March 2021.

[4] See Itzchak E. Kornfeld, *Transboundary Water Disputes: State Conflict and the Assessment of their Adjudication* (Cambridge: Cambridge University Press, 2019), p. 10; Edith Brown Weiss, *International Law for a Water-Scarce World* (Leiden: Martinus Nijhoff Publishers, 2013), p. 2.

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sides of the border, thus far a spirit of cooperation and compromise has sustained the bilateral partnership.[5]

This chapter tells the story of how cooperation has flourished at the Rio Grande in the face of formidable challenges. International law plays a central role in this history. By the middle of the twentieth century, international courts and tribunals were promoting cooperation in disputes over transboundary rivers by decisively rejecting the absolutist conception of national sovereignty. They declared that general principles of equity required riparian states to cooperate with one another to reconcile conflicts between their sovereign rights. These developments in international law greased the wheels for international cooperation over transboundary rivers, helping to avert and defuse conflicts during an era when demand for fresh water was increasing exponentially.

Abandoning Absolute Sovereignty

The Rio Grande is one of 276 transboundary rivers that collectively serve 2.8 billion people – approximately 40 percent of the world's population. Transboundary river basins, also known as "international watercourses,"[6] occupy nearly half of the earth's land surface and account for roughly 60 percent of global river flow.[7] The fresh water that flows through these rivers is vital to human survival and economic development, facilitating agriculture, industry, transportation, electricity generation, and other uses.

Transboundary rivers have been at the center of international disputes for millennia. The earliest recorded international treaty addresses tensions between two Ancient Sumerian city-states over the Euphrates River

[5] Whether Mexico and the United States will be able to sustain this partnership remains to be seen, as climate change-induced water scarcity has strained their ability to satisfy their respective commitments. See Scott Dance, 'A Water War Is Brewing Between the United States and Mexico. Here's Why', Washington Post, 16 May 2024.

[6] The UN Watercourses Convention defines a "watercourse" as "a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus." Convention on the Law of the Non-navigational Uses of International Watercourses, New York, 21 May 1997, in force 17 August 2014, art. 2(a), GA Res. 51/229, UN GAOR, 51st Sess., UN Doc. A/RES/51/229 [hereinafter UN Watercourses Convention].

[7] See Laurance Boisson de Chazournes, *Fresh Water in International Law* (Oxford: Oxford University Press, 2021), p. 3; Bjørn-Oliver Magsig, *International Water Law and the Quest for Common Security* (New York: Routledge, 2015); Stephen C. McCaffrey, Christina Leb and Riley T. Denoon (eds.), 'Introduction', in *Research Handbook on International Water Law* (Cheltenham: Edward Elgar Publishing, 2019), p. 1 [hereinafter *Research Handbook*].

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in approximately 2,500 BCE. Since then, political communities have concluded thousands of agreements on the use and management of transboundary rivers.[8] Disputes over these agreements have also led to international arbitration and adjudication, including an advisory opinion and two judgments in contentious cases from the Permanent Court of International Justice (PCIJ), the first international tribunal with general jurisdiction (i.e., authority to hear any kind of case brought before it that is amenable to international adjudication).[9]

Notwithstanding the importance of transboundary rivers to human flourishing, the international legal norms governing them were unsettled at the turn of the twentieth century. This uncertainty was attributable in part to a paradox at the heart of the then-prevailing theory of absolute sovereignty. Recall from Chapter 1 that Grotius conceptualized states as possessing exclusive authority and proprietary interests over their own sovereign territory, as well as the prerogative to judge the legality of their own actions for themselves. In disputes over transboundary rivers, upstream states invoked the absolutist conception of territorial sovereignty to support their position that they could use transboundary rivers however they pleased, including by diverting water for domestic irrigation. But downstream states also relied on territorial sovereignty to defend their national interests. In their view, sovereignty entailed the right to absolute territorial integrity, including the unimpaired natural flow of fresh water from upstream sources. How to choose between these dueling theories of sovereign rights – known today as "absolute territorial sovereignty" and "absolute territorial integrity" – was by no means obvious under the prevailing Grotian theory of sovereignty. Consequently, upstream and downstream riparians could each plausibly claim that international law authorized them to dictate how a transboundary river running through their borders should be utilized.

A nineteenth-century dispute between Mexico and the United States over the Rio Grande illustrates this dilemma.[10] In July 1848, the United States and Mexico concluded the Mexican-American war by signing the

[8] Alistair Rieu-Clarke, 'From Treaty Practice to the UN Watercourses Convention', in *Research Handbook*, pp. 11–12.

[9] Jurisdiction of the European Commission of the Danube, 1927 PCIJ (ser. B) No. 14, p. 64 (advisory); River Oder Case, 1929 PCIJ (ser. A) No. 23, p. 27 (contentious); Oscar Chinn Case, PCIJ (ser. A/B) No. 63 (1934) (contentious).

[10] The discussion of the Harmon episode that follows draws on Stephen C. McCaffrey's excellent account in *The Law of International Watercourses* (Oxford: Oxford University Press, 2007), pp. 76–102.

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Treaty of Guadalupe Hidalgo.[11] The treaty designated the deepest channel of the Rio Grande as the boundary line between the two countries for 1,255 miles, and it prohibited both parties from constructing "any work that may impede or interrupt" navigation along this section of the river without the other party's consent.[12] As time wore on, diversions of the river by American farmers depleted the Rio Grande to the point that Mexico felt constrained to file a formal diplomatic protest. In October 1894, Mexico's chief representative to the United States, Matías Romero, sent a note to US Secretary of State Walter Q. Gresham asserting the "urgent necessity" to address the United States' "taking of water from the Rio Bravo (Rio Grande) del Norte, which has so seriously affected the existence of the frontier communities for several miles below [Ciudad Juárez]" that they "may be annihilated." Romero argued that further discussions between the countries should focus on maintaining "the equitable division of the waters of the river."[13]

Responding two weeks later, Gresham disputed Romero's factual assertion that American irrigation – rather than natural drought – had diminished the Rio Grande's flow.[14] At Gresham's request, US Attorney General Judson Harmon provided a legal opinion that vigorously defended the United States' sovereign right to use the Rio Grande as it saw fit, without regard to Mexico's rights and interests. Harmon explained that the Treaty of Guadalupe Hidalgo did not prohibit the United States from diverting water for irrigation, as long as these diversions did not impede navigation. Turning next to principles of general international law, Harmon emphasized that the "fundamental principle of international law is the absolute sovereignty of every nation, as against all others, within its own territory."[15] He then quoted a passage from Chief Justice John Marshall's opinion for the US Supreme Court in *Schooner Exchange v. McFaddon*:

[11] Treaty of Peace, Friendship, Limits, and Settlement with the Republic of Mexico, 2 February 1848, US-Mex., 9 Stat. 922.

[12] Treaty of Peace, Friendship, Limits, and Settlement with the Republic of Mexico, arts. V, VII.

[13] 'Minister Romero to Secretary Gresham, 12 October 1894', in *Papers Relating to the Foreign Relations of the United States* (Washington: U.S. Government Printing Office 1894), p. 386.

[14] 'Secretary Gresham to Minister Romero, 1 November 1894', in *Papers Relating to the Foreign Relations of the United States* (Washington: U.S. Government Printing Office 1894), p. 387.

[15] Treaty of Guadalupe Hidalgo – International Law, 21 Op. Attorney Gen. 274, 281 (12 December 1895).

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> The jurisdiction of the nation within its own territory is necessarily exclusive and absolute. It is susceptible of no limitation not imposed by itself. Any restriction upon it, deriving validity from an external source, would imply a diminution of its sovereignty to the extent of the restriction, and an investment of that sovereignty to the same extent in that power which could impose such restriction.
>
> All exceptions, therefore, to the full and complete power of a nation within its own territories must be traced up to the consent of the nation itself. They can flow from no other legitimate source.[16]

In Harmon's view, the United States' prerogative to use as much of the Rio Grande as it wished reflected two basic principles of international law: (1) the "necessarily exclusive and absolute" nature of its territorial sovereignty, and (2) the voluntarist principle (later associated with *The Lotus Case*) that any limitations on state sovereignty must be attributable to state consent. Thus, because the United States had not consented to limit its use of the Rio Grande for irrigation, it was not violating international law.

Harmon's defense of absolute territorial sovereignty – the so-called "Harmon Doctrine" – supplied legal cover at a moment when the United States was anxious to preserve existing irrigation works and parry Mexican claims for monetary reparations. The opinion might have advanced these objectives, but its legal analysis was highly problematic from the start. If every state had "exclusive and absolute" jurisdiction over its own territory, as Harmon supposed, then what about Mexico's territorial sovereignty? Surely Mexico could also claim "full and complete" authority to ensure its own self-preservation by guaranteeing the Rio Grande's uninterrupted flow through its territory? Allowing the United States to divert the river without Mexico's consent would, in the Chief Justice's words, "imply a diminution of [Mexico's] sovereignty to the extent of that restriction, and an investment of that sovereignty to the same extent in [the United States]" – a result antithetical to Mexico's sovereignty. Yet, how could Mexico and the United States *both* exercise "exclusive and absolute" jurisdiction over the Rio Grande's flow? The only way to resolve this dilemma without violating the territorial sovereignty of either state would be for Mexico and the United States to either negotiate an agreement or submit to international arbitration.

In fact, this is precisely what happened. Well before Harmon weighed in with his now-infamous opinion, the US State Department pursued

[16] Treaty of Guadalupe Hidalgo, 281–82 (quoting Schooner Exchange v. McFaddon, 11 US (7 Cranch) 116, 136 (1812)).

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negotiations with Mexico.[17] US President Grover Cleveland delivered an address to Congress in which he argued that tensions over "the storage and use of the waters of the Rio Grande for irrigation should be solved by appropriate concurrent action of the two interested countries."[18] Congress apparently agreed. Expressing concern that US irrigation practices were "rendering the lands [downstream] arid and unproductive, to the great detriment of the citizens of the two countries who live along its course," Congress adopted a joint resolution in 1890 urging the President to pursue negotiations with Mexico to resolve the issue.[19] Thus, in stark contrast to Harmon's legal opinion, US foreign policy throughout this period demonstrated respect for Mexico's sovereign rights and interests and a commitment to resolve the issue through bilateral cooperation.

Rather than proceed unilaterally, the two governments asked the International Boundary Commission, which they had established in 1889, to evaluate the facts on the ground and help them determine "the best and most feasible mode" of regulating the Rio Grande "so as to secure to each country concerned and to its inhabitants their legal and equitable rights in said waters."[20] Guided by the Commission's recommendations, Mexico and the United States concluded a treaty in 1906 "to provide for the equitable distribution of the waters of the Rio Grande for irrigation purposes, and to remove all causes of controversy between them in respect thereto."[21] Under the treaty, the United States committed to deliver 60,000 acre-feet of water from the Elephant Butte Dam annually, and Mexico agreed to waive legal claims arising from the United States' diversions.[22]

Mexico and the United States have continued this cooperative relationship into the present. In 1944, the two states concluded a new treaty in which the United States expressly recognized Mexico's sovereign

[17] Minister Romero to Secretary Olney, 28 December 1985, US Appendix, pp. 211–12.
[18] President G. Cleveland, Annual Message, 3 December 1894, quoted in John Basset Moore, 'A Digest of International Law' (1906) 1 AJIL 764.
[19] Concurrent Resolution of 29 April 1890, Con. Rec. – Senate, 29 April 1890, p. 3963, Con. Rec. – House, 29 April 1890, p. 3977; US Appendix, p. 145.
[20] Protocol contained in note from Minister Romero to Secretary Olney, 6 May 1896, US Appendix, p. 226.
[21] Convention Between the United States and Mexico Providing for the Equitable Distribution of the Waters of the Rio Grande for Irrigation Purposes, Washington, D.C., 21 May 1906, US-Mexico, 34 Stat. 2953, UNTS No. 455.
[22] Convention Between the United States and Mexico Providing for the Equitable Distribution of the Waters of the Rio Grande for Irrigation Purposes, art. I.

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interest in utilization of the Rio Grande.[23] Each of the states committed to contribute a defined volume of water to the Rio Grande from tributaries within their respective jurisdictions.[24] The treaty established an International Boundary and Waters Commission (IBWC) to coordinate the planning, construction, and operation of works along boundary waters, including hydropower dams, storage and diversion structures, and flood control measures.[25] It also contemplated that the parties would work through the IBWC to develop additional bilateral agreements – described as "minutes" – to facilitate continued cooperation and resolve future disagreements related to their transboundary waters.[26] In the 1960s and 1970s, as demand for water accelerated and both countries struggled to meet their contribution commitments, the IBWC's minutes focused largely on issues of equitable apportionment. By the 1990s, drought management and ecological preservation became more salient.[27] Thus, cooperation between Mexico and the United States evolved over time in response to the states' shifting priorities.

A dispute between Mexico and the United States illustrates the resiliency of this cooperative framework. In September 2020, Texas Governor Greg Abbott delivered a letter to US Secretary of State Mike Pompeo formally complaining that Mexico was close to defaulting on its obligations under the 1944 treaty. At the time, Mexico owed the United States "almost a year's worth of water" – over 300,000 acre-feet – with only six months remaining until the deadline. When Mexico announced that it would honor its treaty obligation, thousands of pecan farmers converged on the Bolaquilla Dam in northern Mexico. Brandishing sticks and stones, the protesters seized control of the dam and closed its valves in an attempt to preserve the dam's scarce water for their own parched orchards. Rather than appease the farmers, the Mexican government directed its National Guard to reclaim the dam by force and reopen the valves, leading to violent clashes that claimed the life of a protestor,

[23] Treaty Between the United States of America and Mexico on Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande, Washington, D.C., 3 February 1944, in force 8 November 1945, and Protocol, 14 November 1944, 59 Stat. 1219.

[24] Treaty Between the United States of America and Mexico on Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande, art. 4.

[25] Treaty Between the United States of America and Mexico on Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande, arts. 2, 5–9, 12, 24.

[26] Treaty Between the United States of America and Mexico on Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande, arts. 24–25.

[27] Weiss, *International Law for a Water-Scarce World*, p. 164.

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Yesica Silva.[28] In the end, despite intense regional resistance, the cooperative relationship between Mexico and the United States prevailed, allowing water to continue to flow to the lower Rio Grande. Although Mexico has since fallen further behind in its obligations under the 1944 treaty and political tensions between communities on either side of the river continue to run high, thus far the two sides have managed to prevent the situation from escalating into further violence.[29]

Reconciling Conflicting Rights

The robust Mexico–US partnership at the Rio Grande demonstrates that international cooperation is possible even when states have divergent interests with respect to scarce resources. It does not yet show, however, that international law affirmatively *requires* such cooperation, much less what the grounds of such a requirement would be. Beginning early in the twentieth century, however, national courts and international courts and tribunals began to recognize that general principles of law do, in fact, obligate states to cooperate with one another to resolve disputes over transboundary rivers. Through these decisions and supportive state practice, mandatory cooperation became firmly enshrined in the customary international law of transboundary rivers.

In the early twentieth century, the US Supreme Court decided a series of cases supportive of mandatory cooperation involving disputes between states of the United States.[30] In 1907, Kansas sued Colorado for diverting water from the Arkansas River, allegedly depriving Kansas and its inhabitants of the full volume of water to which they were accustomed.[31] The Court observed that "because Kansas and Colorado are states sovereign and independent in local matters, the relations between them [arguably] depend . . . upon principles of international law."[32] The Court then proceeded to identify the applicable legal principles:

[28] Eoin Wilson, 'Mexico's Water Crisis Heats Up as Transfer to US Looms', Al Jazeera, 8 October 2020.
[29] Dance, 'A Water War Is Brewing'; 'US, Mexico Reach Agreement on Rio Grande Water Deliveries Amid Drought, Shortages', Reuters, 9 November 2024.
[30] See, e.g., Kansas v. Colorado, 185 US 125 (1902); Kansas v. Colorado, 206 US 46 (1907); New Jersey v. New York, 283 US 336 (1931).
[31] Kansas v. Colorado, 205 US 46, 47 (1907).
[32] Ibid. p. 97.

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> One cardinal rule, underlying all the relations of the states to each other, is that of equality of right. Each state stands on the same level with all the rest. It can impose its own legislation on no one of the others, and is bound to yield its own views to none. Yet, whenever . . . the action of one state reaches, through the agency of natural laws, into the territory of another state, the question of the extent and the limitations of the rights of the two states becomes a matter of justiciable dispute between them, and this court is called upon to settle that dispute in such a way as will recognize the equal rights of both and at the same time establish justice between them.[33]

In light of these principles, the Court held that the equal rights of Colorado and Kansas required an "equitable division" of water between the two states.[34]

Similarly, in a 1931 case, *New Jersey v. New York*,[35] the Court considered New Jersey's request for an injunction to prevent New York from channeling water away from the Delaware River and its tributaries toward New York City. In an opinion authored by Justice Oliver Wendell Holmes, the Court acknowledged that

> New York has the physical power to cut off all the water within its jurisdiction. But clearly the exercise of such a power to the destruction of the interest of lower States could not be tolerated. And on the other hand equally little could New Jersey be permitted to require New York to give up its power altogether in order that the river might come down to it undiminished. Both States have real and substantial interests in the River that must be reconciled as best they may.[36]

According to Justice Holmes, the goal of reconciling sovereign rights in this manner "always is to secure an equitable apportionment without quibbling over formulas."[37]

Eight years later, the Italian Court of Cassation confirmed that equitable principles also apply to states under international law. In the Convention of December 17, 1914, France and Italy had established a joint framework for utilization of the transboundary Roya River. France later objected to an Italian firm's plan to construct a power station on the Italian side of the border.[38] In deciding in favor of the Italian firm, the Court described the applicable law as follows:

[33] Ibid. pp. 97–98.
[34] Ibid. p. 104.
[35] 283 US 336 (1931).
[36] Ibid. at 342–343.
[37] Ibid. at 343.
[38] See Victor Petaccio, 'Water Pollution and the Future Law of the Sea' (1972) 21 ICLQ 15, 22.

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> International law recognizes the right on the part of every riparian State to enjoy, as a participant of a kind of partnership created by the river, all the advantages deriving from it for the purpose of securing the welfare and the economic and civil progress of the nation . . . However, although a State, in the exercise of its right of sovereignty, may subject public rivers to whatever regime it deems best, it cannot disregard the international duty, derived from that principle, not to impede or to destroy, as a result of this regime, the opportunity of other States to avail themselves of the flow of water for their own national needs. In order to settle this conflict between the exercise of the right of sovereignty and the fulfilment of the duty imposed by the *comitas gentium*, regulations have been laid down by international conventions. By these treaties riparian States impose upon themselves those self-limitations in the exercise of their own sovereign prerogatives which are regarded as necessary to exclude reciprocal noxious interference with the concurrent utilisation of the common course of the river.[39]

Applying these principles, the Court concluded that international cooperation was required under international law to reconcile the states' conflicting sovereign rights relative to the Roya.

An arbitral tribunal eventually delivered the most influential statement on mandatory cooperation in the 1957 *Lake Lanoux Arbitration*.[40] The dispute concerned the rights of France and Spain respectively to waters flowing from Lake Lanoux in the Pyrenees.[41] Lake Lanoux is situated entirely in France, but its waters flow into the Carol River, which enters Spanish territory after traveling roughly twenty-five kilometers through France.[42] The Treaty of Bayonne of 1866 established the Franco-Spanish border and contained provisions regulating the use of transboundary watercourses like the Carol River.[43] Article 8 of the Treaty affirmed that "standing and flowing waters . . . are subject to the sovereignty of the State in which they are located."[44] Anticipating that situations could arise in which works in one country might affect waters in the other, Article 11 provided that any proposal "to construct works or to grant concessions which might change the course of the volume of a [transboundary] watercourse" could proceed only after "prior notice" to the other state.

[39] Société Energie Electrique du Littoral Miditerranéen v. Compagnia Imprese Elettriche Liguri, Italian Court of Cassation, 13 February 1939, (1938–1940) Annual Digest of Public International Law Cases (Lauterpacht) 120–122 (No. 47).
[40] Lake Lanoux Arbitration (Fr. v. Sp.), 24 ILR 101 (1957).
[41] Ibid. p. 101.
[42] Ibid. p. 101–102.
[43] Ibid. p. 102–105.
[44] Ibid. p. 102–103.

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The purpose of this requirement was to enable aggrieved states to raise timely objections, thus ensuring that "the interests that may be involved on both sides will be safeguarded."[45]

In 1950, France announced that it would divert some of the waters from Lake Lanoux to develop a hydroelectric project on its own soil. France proposed to return the diverted waters to the Carol River (the natural destination of those waters) through an engineered tunnel.[46] Spain objected to the proposed project, arguing that Article 11 of the Treaty of Bayonne required France to obtain Spain's consent before proceeding.[47] In response, France invoked Article 8, which affirmed the parties' sovereign jurisdiction over "standing and flowing waters" within their borders. France argued that in any event Spain would suffer no harm from the project because all of the diverted water would return to the Carol River before it crossed into Spain.[48]

The Tribunal emphatically rejected the suggestion that France must obtain Spain's consent before diverting water from Lake Lanoux. The Tribunal expressed concern that if Spain had the right to veto such works in French territory, Spain could dominate its neighbor, suppressing France's "exercise of territorial jurisdiction" through "unconditional and arbitrary opposition" to new development projects.[49] Spain's argument would exalt territorial integrity to the detriment of territorial sovereignty, subjecting upstream riparians to the unilateral power of downstream riparians. This would place the sovereign rights of France and Spain on an unequal footing in violation of the principle of sovereign equality.

Although the Tribunal rejected Spain's argument, it confirmed that France was legally obligated to cooperate with Spain to provide equitable utilization of the disputed waters. Accordingly, France could not treat Spanish interests with indifference; rather, it must consult and negotiate

[45] Ibid. p. 103.
[46] Ibid. p. 105.
[47] Ibid. p. 120.
[48] Ibid. pp. 117–119. Throughout the dispute, the states' respective obligations "to negotiate the apportionment of the waters of [the] international watercourse was uncontested, and was acknowledged by France not merely by reason of the terms of the Treaty of Bayonne and its Additional Act, but as a principle to be derived from the authorities." 'The Law of the Non-Navigational Uses of International Watercourses', art. 3, *in* Report of the International Law Commission on the Work of Its Thirty-Second Session (1980) 2 YBILC 117, UN Doc. A/CN.4/SER.A/1980/Add.1.
[49] Lake Lanoux Arbitration, p. 128.

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with its downstream neighbor in good faith.[50] In this context, "the reality of the obligations thus undertaken is incontestable and sanctions can be applied in the event, for example, of an unjustified breaking off of the discussions, abnormal delay, disregard of the agreed procedures, systematic refusals to take into consideration adverse proposals or interests, and, more generally – in cases of violation of the rules of good faith."[51] In particular, the Tribunal stressed the "necessity to reconcile [conflicting interests] by mutual concessions,"[52] and that to this end "there would thus appear to be an obligation to accept in good faith all communications and contracts which could, by a broad comparison of interests and by reciprocal good will, provide States with the best conditions for concluding agreements."[53]

More specifically, the Tribunal held that it would not be enough for France, the upstream state, to engage in a mere box-ticking exercise "such as taking note of complaints, protests or representations made by the downstream State."[54] Instead, "the upstream State is under the obligation to take into consideration the various interests involved, to seek to give them every satisfaction compatible with the pursuit of its own interests, and to show that in this regard it is genuinely concerned to reconcile the interests of the other riparian State with its own."[55] France had satisfied these obligations by negotiating with Spain in good faith and giving reasonable consideration to Spanish interests by agreeing to restore waters diverted to the Carol River in a manner that would best accommodate Spanish agriculture.[56]

Because France's efforts to cooperate with Spain were carried out within a mandatory legal framework, Spain was not subject to unilateralism on the part of France, notwithstanding the fact that France was exercising sovereign rights over the waterway. Although Spain did not obtain a veto over France's hydroelectric project, the Tribunal concluded that Spain was entitled to meaningful consultation and equitable accommodation, thus providing a legal bulwark against French unilateralism. In particular, the Tribunal emphasized that French sovereignty over the upstream waterway must not be used to interfere arbitrarily with Spanish

[50] Ibid.
[51] Ibid.
[52] Ibid. p. 129.
[53] Ibid. p. 130.
[54] Ibid. p. 139.
[55] Ibid.
[56] Ibid. p. 142.

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interests or to threaten such interference.[57] Spain had argued that diverting water into a hydroelectric project was wrongful because it would make Spain dependent on France for the continued delivery of water from Lake Lanoux.[58] The Tribunal did not reject this argument on principle, but on the grounds that the facts did not bear it out: because France could not shut off the flow of water without causing serious injury to its own interests, any threat to interfere with Spain's access to water from Lake Lanoux would be an empty one.[59] Accordingly, there was no genuine prospect of France using the proposed hydroelectric project to dominate Spain or interfere with Spain's territorial integrity. The Tribunal concluded that France had adequately respected Spain's sovereign interests by notifying Spain of the proposed project, engaging in extensive consultation and negotiation, submitting to arbitration, and giving due regard to Spain's sovereign interests in the shared watercourse.

Legal scholars today often characterize *Lake Lanoux* as affirming a doctrine of "limited sovereign rights" over international watercourses, but this characterization requires qualification.[60] As noted previously, the Treaty of Bayonne expressly preserved the states-parties' sovereign authority over their respective territories.[61] The Tribunal did not question this proposition. Accordingly, the Tribunal left the parties' sovereign rights undisturbed but held that each of the parties must exercise their rights in accordance with equitable principles that respect the other's equal sovereignty.

This approach to reconciling conflicts of sovereign rights resonates with equity's operation in national legal systems. As Henry Smith has observed, equity constitutes a form of "second-order law" or "meta-law" that formally preserves legal rights but conditions how those rights may be exercised in some contexts.[62] Equitable principles characteristically apply to disputes involving conflicting rights, where the exercise of a right

[57] Ibid. pp. 138–142.
[58] Ibid. p. 113.
[59] Ibid. pp. 125–126.
[60] See, e.g., Kornfeld, *Transboundary Water Disputes*, p. 62 (observing that a doctrine of limited territorial sovereignty "has received wide-scale acceptance within [the] transboundary water law community"); McCaffrey, *The Law of International Watercourses*, p. 135 (describing "the doctrine of 'limited territorial sovereignty'" as "probably the prevailing theory of international watercourse rights and obligations today").
[61] Treaty of Bayonne, art. 8.
[62] Henry Smith, 'Equity as Meta-Law' (2021) 130 YLJ 1050.

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by one party could prejudice others' rights.[63] Equity's response to conflicting rights is to impose second-order "*in personam*" obligations that "leave the presumptive rights in place and to reconcile them ex post based on an equitable, context-sensitive style of reasoning."[64] Equity accommodates conflicting rights by constraining how parties may exercise rights to prevent what the civilian legal tradition calls an "abuse of right." Hence, a state may not abuse its sovereign authority over a transboundary river by unilaterally imposing regulations that effectively subordinate another riparian state's sovereign authority. Nor may a state divert water from a transboundary river in a manner that would disproportionately impact another state's sovereign rights to the same resource. Consistent with the dominant proportionality-based approach to adjudicating conflicts of rights,[65] international law calls for apportioning water between riparian states in a manner that accounts for the states' respective equitable interests.[66] This distinctively equitable approach to conflicts of rights has become "the cornerstone of customary international law" governing the use of transboundary rivers.[67]

By placing equitable principles at the heart of its regime governing transboundary rivers, international law aims to mitigate practical inequities generated by its allocation of territory among states. If equitable principles did not apply, upstream states (e.g., France, the United States) might invoke their own territorial sovereignty as a trump justifying the unilateral diversion of water that would otherwise flow to downstream states (e.g., Mexico, Spain). Or economically and militarily powerful downstream states (e.g., Egypt) might cite territorial integrity as a justification for coercing upstream states to refrain from using an equitable portion of transboundary waters (e.g., Burundi, Ethiopia, Uganda). By

[63] Ibid. pp. 1055–1056. The polycentricity of transboundary river disputes also supports recourse to equitable principles. *See* Kornfeld, *Transboundary Water Disputes*, pp. 30–41.

[64] Smith, 'Equity as Meta-Law', pp. 1068, 1073.

[65] *See* Alec Stone Sweet and Jud Mathews, 'Proportionality Balancing and Global Constitutionalism' (2008) 47 CJTL 72, 73, 87–88 (contrasting hierarchy-based approaches to conflicts of rights with proportionality-based approaches, and characterizing proportionality analysis as "the preferred procedure for managing disputes involving an alleged conflict between two rights claims").

[66] See UN Watercourses Convention, art. 5 ("Watercourse States shall participate in the use, development and protection of an international watercourse in an equitable and reasonable manner.").

[67] Boisson de Chazournes, *Fresh Water in International Law*, p. 26; see also Christina Leb, *Cooperation in the Law of Transboundary Water Resources* (Cambridge: Cambridge University Press, 2013), p. 80; Stephen C. McCaffrey, 'Intertwined General Principles', in *Research Handbook*, pp. 83, 88.

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affirming that equitable principles apply to international rivers, international law bars states from dominating their neighbors by unilaterally dictating the terms upon which these shared resources will be governed and apportioned.[68]

Establishing a Community of Interest

Recognizing the uncertainty that surrounded the international law of international watercourses at the dawn of the twentieth century, the eminent Swiss jurist Max Huber identified four possible legal paradigms: absolute territorial sovereignty, absolute territorial integrity, limited territorial sovereignty, and community of interest. The last option – community of interest – would treat an international watercourse (including the primary river and all tributaries) holistically as a unitary common resource.[69] Proponents of the community interest paradigm tend to link the idea to concepts of "internationalization" or "denationalization," suggesting that transboundary rivers are subject to the joint-stewardship of the entire community of riparian states.[70] Under this approach, no member of the community could claim unilateral jurisdiction over a transboundary river, but each would have an equal right to use the river, and each would have equal voice in collective governance.

In its first case on the merits, the PCIJ applied the community of interest paradigm to the Oder, a river that presently traverses the territory of the Czech Republic, Germany, and Poland. Under the Treaty of Versailles, an international commission was responsible for regulating navigation on the Oder.[71] The question presented in *The River Oder Case* was whether the commission's jurisdiction extended to certain tributaries of the Oder in Polish territory. Purporting to summarize "the principles governing international fluvial law in general," the Court indicated that

[68] Much depends on how states' equitable interests are identified and assessed. See Valentina Okaru-Bisant, 'Institutional and Legal Frameworks of Preventing and Resolving Disputes Concerning the Development and Management of Africa's Shared River Basins' (1998) 9 *Colo. J. Int'l Envt'l L. & Pol'y* 331, 354 (expressing concern that applying equitable principles may "reward the countries ... that are first to develop a shared river," thereby systematically disadvantaging poorer countries that are behind the development curve).

[69] Max Huber, 'Ein Beitrag zur Lehre von der Gebietshoheit an Grenzflüssen', in *Zeitschrift für Völkerrecht und Bundesstaatsrecht* (Breslau: J. Kern, 1907), pp. 161–162.

[70] See McCaffrey, *The Law of International Watercourses*, p. 60; Weiss, *International Law for a Water-Scarce World*, p. 21.

[71] River Oder Case, p. 13.

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> a solution of the problem has been sought not in the idea of a right of passage in favour of upstream States, but in that of a community of interest of riparian States. This community of interest in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the use of the whole course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others.[72]

Decades later, the International Court of Justice (ICJ) would cite this passage from *The River Oder Case* with approval in *Gabčikovo-Nagymaros v. Hungary*, asserting that the subsequent "development of international law has strengthened this [community of interest] principle for non-navigational uses of international watercourses as well."[73]

The community of interest paradigm aptly describes some treaty regimes, like the Mexico–US partnership at the Rio Grande, which establish international commissions to govern watercourses holistically for the shared benefit of riparian states. It also helps to make sense of watercourse treaties (or provisions thereof) that are designed to promote environmental conservation, sustainability, and intergenerational equity. The purpose of these agreements is to remove matters of common concern from the unilateral jurisdiction of individual states and commit those matters instead to the joint stewardship of a community of riparian states.[74] Within a community of interest regime, each state must cooperate with the rest of the community to achieve the regime's objectives, while sharing equitably in the associated benefits and burdens. Significantly, because community of interest regimes are premised on sovereign equality, they are subject to the same equitable principles that apply in conflict of rights cases like Lake Lanoux. In both contexts, states must share relevant information, seek consensus through consultation and negotiation, and, if all else fails, resort to peaceful third-party dispute resolution.

Most transboundary rivers have not been fully internationalized through treaties that establish a community of interest.[75] The reason

[72] Ibid. p. 27.

[73] Case Concerning the Gabčikovo-Nagymaros Project (Hungary/Slovakia), 1997 ICJ Rep. 7, 85 (25 September).

[74] Cf. Cara Nine, 'When Affected Interests Demand Joint Self-determination: Learning From Rivers' (2014) 6 *Int'l Theory* 157, 163 (arguing that "rivers should be sites of joint political structures, because without them groups are in jeopardy of losing their capacity to be self-determining").

[75] See Rémy Kinna and Alistair Rieu-Clarke, *The Governance Regime of the Mekong River Basin*: *Can the Global Water Conventions Strengthen the 1995 Mekong Agreement?*

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why states have not concluded more treaties is not hard to imagine. States are often reluctant to relinquish their territorial sovereignty. They do not necessarily trust neighboring states as prospective partners. They might hesitate to conclude agreements that could lock in long-term disadvantages or strengthen a competitor. When states decline to establish a community of interest regime for these or other reasons, *Lake Lanoux*'s customary default rule applies: each state retains its sovereign rights but must exercise those rights in a manner that satisfies equitable principles.

Codifying Mandatory Cooperation

International watercourse treaties often codify aspects of *Lake Lanoux*'s customary default rules. In some instances, these agreements have sustained productive international partnerships even among otherwise bitter regional rivals. A striking example is the Indus Waters Treaty of 1960.[76] Originating on the Tibetan plateau, the Indus River travels 1800 miles through India and Pakistan, sustaining the lives and livelihoods of approximately 215 million people throughout its basin. Following the 1947 partition of India and Pakistan, the World Bank averted possible hostilities between the two states by brokering an agreement that has held firm for over sixty years.[77] Rather than treat the Indus River Basin as a unitary system under a community of interest regime, India and Pakistan elected to divide the basin's waters equitably, with India taking the three eastern rivers (the Ravi, Beas, and Sutlej) and Pakistan the three western rivers (the Indus, Jhelum, and Chenab), subject to India's right to use some water for irrigation, hydropower generation, and other purposes before the western rivers enter Pakistan.[78] The two states also agreed to develop dams, canals, and other works (bankrolled largely by the World Bank) to increase the total volume of water available for agriculture, electricity generation, and other uses.[79] The treaty establishes an orderly process for information-sharing, consultation, and dispute

(Leiden: Brill, 2017), p. 4 ("Only approximately 40 percent of the world's 263 international watercourses are now covered by a basin-specific agreement, which suggests that a significant number of basins are reliant upon customary international law.").

[76] Indus Waters Treaty, Karachi, 19 September 1960, 419 UNTS 6032.

[77] For discussion of the World Bank's role, see Salman M. A. Salman and Kishor Uprety, *Conflict and Cooperation on South Asia's International Rivers* (New York: Kluwer Law International, 2002), pp. 45–58.

[78] Indus Waters Treaty, arts. II–III.

[79] Ibid. art. IV.

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resolution through a Permanent Indus Commission.[80] If the commissioners fail to reach agreement, the parties may jointly submit unresolved "differences" either to a neutral expert who is a highly qualified engineer or to the Permanent Court of Arbitration (PCA).[81] Against all odds, this cooperative framework between India and Pakistan has survived three wars (1965, 1971, 1999), a nuclear arms race, intensifying nationalism, and a host of other challenges,[82] though its future remains fragile in light of enduring tensions between the two historic rivals.[83]

Another important codification of mandatory cooperation is the UN Economic Commission for Europe's 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, also known as the "Helsinki Convention."[84] Following the devastating 1986 Sandoz chemical spill, which dyed the Rhine River blood red, wiping out flora and fauna for hundreds of miles, European countries cooperated to establish an "ecosystem-oriented, holistic approach to the sustainable use and integrated management of freshwater resources in Europe."[85] The keystone of this effort is the Helsinki Convention, which requires state-parties to "prevent, control, and reduce pollution of waters causing or likely to cause transboundary impact"; "ensure that transboundary waters are used with the aim of ecologically sound and rational water management, conservation of water resources and environmental protection"; "ensure that transboundary waters are used in a reasonable and equitable way"; and "ensure conservation and, where necessary, restoration of ecosystems."[86] The Convention also obligates states-parties to "cooperate in the conduct of research into and development of effective

[80] Ibid. arts. VI–VII.

[81] Ibid. art. IX; see also In re. Indus Waters Kishenganga Arbitration (Pak. v. India), Partial Award (Arb. Trib. 18 February 2013); In re. Indus Waters Kishenganga Arbitration (Pak. v. India), Final Award (Arb. Trib. 20 December 2013).

[82] See Magsig, *International Water Law and the Quest for Common Security*, p. 185.

[83] See Betsy Joles, 'With Indus Water Treaty in the Balance, Pakistan Braces for More Water Woes', NPR, 8 July 2025 (discussing India's suspension of the Indus Water Treaty in response to an April 2025 "attack in which militants killed 26 people in Indian-administered Kashmir").

[84] UN Economic Commission for Europe, Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Helsinki, 17 March 1992, in force 6 October 1996, 31 ILM 1312 [hereinafter Helsinki Convention].

[85] Götz Reichert, 'Europe: International Water Law and the EU Water Framework Directive', in *Research Handbook*, pp. 397, 397–398. Since 2016, the Helsinki Convention has been open for ratification by non-European states. UNECE, *Introduction*, https://unece.org/environment-policy/water/about-the-convention/introduction.

[86] Helsinki Convention, art. 2(2).

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techniques for the prevention, control and reduction of transboundary impact,"[87] and to practice the "widest exchange of information, as early as possible, on issues covered by the provisions of this Convention."[88] The Helsinki Convention makes international cooperation mandatory by declaring that states-parties "shall on the basis of equality and reciprocity enter into bilateral or multilateral agreements or other arrangements" on a wide range of issues "in order to define their mutual relations and conduct regarding the prevention, control and reduction of transboundary impact."[89] Each of these features of the Helsinki Convention affirms states' joint stewardship over the sustainable use and environmental protection of transboundary rivers.

Perhaps the most important codification of mandatory cooperation for transboundary rivers is the landmark 1997 Convention on the Law of Non-Navigational Uses of International Watercourses (the UN Watercourses Convention).[90] Article 5 endorses the principle of equitable and reasonable utilization by providing that states-parties "shall in their respective territories utilize an international watercourse in an equitable manner . . . taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse."[91] Factors relevant to the equitable apportionment of water include a river's natural characteristics, the social and economic needs of riparian states, how usage affects other states, and the need for conservation and efficient use of water resources.[92] The Convention also obligates states "when utilizing an international watercourse in their territories, [to] take all appropriate measures to prevent the causing of significant harm to other watercourse States."[93]

To foster international equity and prevent avoidable harm, the UN Watercourses Convention obligates states to "cooperate on the basis of

[87] Helsinki Convention, art. 5.
[88] Helsinki Convention, art. 6.
[89] Helsinki Convention, art 9; see also art. 10 ("Consultations shall be held between the Riparian Parties on the basis of reciprocity, good faith and goodneighbourliness, at the request of any such Party. Such consultations shall aim at cooperation regarding the issues covered by the provisions of this Convention.").
[90] UN Watercourses Convention.
[91] UN Watercourses Convention, art. 5(1).
[92] UN Watercourses Convention, art. 6(1).
[93] UN Watercourses Convention art. 7(1); see also Jutta Brunnée and Stephen J. Toope, 'The Changing Nile Basin Regime: Does Law Matter?' (2002) 43 HILJ 105, 149 (noting tensions between the equitable and reasonable utilization principle and the no significant harm requirement).

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sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilization and adequate protection of an international watercourse."[94] This general obligation entails specific duties to exchange data and information on the conditions of a watercourse,[95] including planned works that might adversely affect other riparian states.[96] In addition, the Convention requires states-parties to consult and negotiate with one another "in good faith," respecting the principle of sovereign equality by "pay[ing] reasonable regard to [others'] rights and legitimate interests."[97] If consultation and negotiation do not produce agreement, states-parties must "seek a settlement of the dispute by peaceful means." Options for peaceful dispute resolution include recourse to an impartial factfinder; the good offices, mediation or conciliation of a third party; submission to a joint watercourse institution; international arbitration; or adjudication in the ICJ.[98] These features of the UN Watercourses Convention codify the customary duties of mandatory cooperation.[99]

Managing Entrenched Disputes

When states fail to agree on mutually acceptable terms of cooperation for a transboundary river, this can lead to a protracted stalemate. Entrenched disputes over transboundary rivers are not necessarily the product of bad faith. In some cases, neighboring states may disagree in good faith about the ingredients of an equitable solution. They may prefer different dispute-resolution mechanisms (e.g., mediation, arbitration, adjudication) or institutions (e.g., ICJ, PCA, regional courts). While international dialogue can help to resolve discord between states, in some instances it can harden points of disagreement.[100] When this occurs, transboundary river disputes can easily drag on without the expectation of an immediate resolution.

Some of the world's most important watercourses have become mired in entrenched disputes. The iconic Nile River Basin, which covers over

[94] UN Watercourses Convention, art. 8(1).
[95] UN Watercourses Convention, art. 9.
[96] UN Watercourses Convention, arts. 11–12.
[97] UN Watercourses Convention, art. 17.
[98] UN Watercourses Convention, art. 33.
[99] The Convention entered force in August 2014. As of February 5, 2025, only forty states have joined the Convention. *See* UN Treaty Collection, https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-12&chapter=27&clang=_en.
[100] See Monica Hakimi, 'The Work of International Law' (2017) 58 HILJ 1.

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three million square miles and feeds 250 million people, illustrates this problem.[101] By 2050, the combined population of Nile Basin riparian states is expected to reach one billion, straining the basin's capacity to meet the population's basic needs for fresh water.[102] For generations, the eleven states within the Nile River Basin have debated how to apportion its finite waters. Citing historical practice, colonial-era treaties, and its continuing needs, Egypt has asserted the right to use over 55 percent of the Nile's annual flow. Sudan has also claimed preferential rights to Nile Basin waters.[103] However, as upstream riparians have grown in population, political influence, and the ability to attract foreign investment for hydropower and irrigation projects, the reaching claims of Egypt and Sudan have encountered increasingly stiff resistance.

In 2010, multilateral discussions among Nile Basin states produced the Nile Basin Cooperative Framework Agreement (CFA), a treaty that seeks to "promote integrated management, sustainable development, and harmonious utilization of the water resources of the Basin, as well as their conservation and protection for the benefit of present and future generations."[104] Modeled after the UN Watercourses Convention, the CFA embraces the general principles of equitable and reasonable utilization, avoiding significant harm, the preservation of endangered ecosystems, good faith consultation and cooperation, and mandatory dispute resolution.[105] The CFA specifically affirms "[t]he principle of cooperation between States of the Nile River Basin on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilization and adequate protection and conservation of the Nile River Basin and to promote joint efforts to achieve social and economic development."[106] Notably, the CFA also invokes the "community of interest" concept as a guiding principle, calling into question the

[101] Salman M. A. Salman, 'Mediation of International Water Disputes: The Indus, the Jordan, and the Nile Basins Interventions', in Laurence Boisson de Chazournes, Christina Leb, and Mara Tignino (eds.), *International Law and Freshwater: The Multiple Challenges* (Cheltenham: Edward Elgar, 2013), pp. 360, 387; Nile Basin Initiative, 'A Long River Journey: 20 Years of Cooperation Under the NBI' (2019) [hereinafter NBI].

[102] NBI, p. 13.

[103] Salman, 'Mediation', p. 390.

[104] Agreement on the Nile River Basin Cooperative Framework, 14 May 2010, www.internationalwaterlaw.org/documents/regionaldocs/Nile_River_Basin_Cooperative_Framework_2010.pdf [hereinafter Agreement on the Nile River Basin Cooperative Framework].

[105] Agreement on the Nile River Basin Cooperative Framework, arts. 3–11.

[106] Agreement on the Nile River Basin Cooperative Framework, art. 3(1).

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sovereignty-based claims of Egypt and Sudan.[107] To date, only seven states have signed on to the CFA (Burundi, Ethiopia, Kenya, Rwanda, South Sudan, Tanzania, Uganda), leaving four holdouts (Democratic Republic of the Congo, Egypt, Eritrea, and Sudan).[108] The fact that so many downstream states have declined to endorse the CFA leaves the Nile's future in limbo, despite growing acceptance on both sides that equitable principles constitute the applicable international law[109] and despite burgeoning cooperation with respect to some issues of common concern, such as flood control and environmental conservation.[110]

Another well-known example of an entrenched dispute is the *Gabčikovo-Nagymaros Case*.[111] In 1993, Hungary and Slovakia sought the ICJ's assistance in resolving a dispute over Hungary's unilateral suspension of a joint-venture between the two countries to develop a system of locks and hydroelectric power plants on the Danube River.[112] Hungary argued that the project negatively impacted its legal interest and the international community's collective interest in preserving the river's ecological health.[113] Slovakia contended, in turn, that Hungary's actions violated a treaty between the two countries.[114] After concluding that both parties had violated their international legal obligations, the ICJ sent the dispute back to the parties with the instruction to "find an agreed solution" through "good faith" negotiation.[115] Although Slovakia eventually agreed to discontinue proceedings in the ICJ, for nearly two decades the two sides made little progress in negotiations, raising the specter of perpetual deadlock.[116]

[107] Agreement on the Nile River Basin Cooperative Framework, art. 3(9).
[108] Nile Basin Initiative, 'Cooperative Framework Agreement', https://nilebasin.org/about-us/cooperative-framework-agreement.
[109] See Agreement on Declaration of Principles between the Arab Republic of Egypt, the Federal Democratic Republic of Ethiopia and the Republic of the Sudan on the Grand Ethiopian Renaissance Dam Project (GERDP), 23 March 2015, www.internationalwaterlaw.org/documents/regionaldocs/Final_Nile_Agreement_23_March_2015.pdf (endorsing principles of cooperation and equitable and reasonable utilization).
[110] See NBI, p. 35 (outlining the 2017–2027 Nile Basin Strategy).
[111] Gabčikovo-Nagymaros Project, 1997 ICJ Rep. 7.
[112] Ibid. pp. 10–17, paras. 1–14.
[113] Ibid. pp. 35–36, para. 40.
[114] Ibid. p. 16, para. 13.
[115] Ibid. pp. 78, 82 paras. 142, 155(2)(B).
[116] In June 2017, Hungary resumed construction and Slovakia agreed to discontinue proceedings in the ICJ. Gabčikovo-Nagymaros Project (Hung./Slov.), Press Release (21 July 2017), www.icj-cij.org/files/case-related/92/092-20170721-PRE-01-00-EN.pdf.

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International law responds to entrenched disputes like these by imposing special requirements of mandatory cooperation. First, as long as disputes remain unresolved, states must continue to explore dispute resolution mechanisms in good faith until they find a successful avenue for achieving an equitable resolution.[117] Second, although states may take provisional steps to secure their legal interests once it becomes clear that an impasse has been reached,[118] they must notify other interested parties of such measures,[119] maintain a continuous process of dialogue to ensure that their provisional measures do not foreclose a multilateral solution,[120] and avoid any actions that would "establish a fait accompli capable of prejudicing the outcome of negotiations."[121] The last requirement is especially critical as applied to transboundary rivers: states must refrain from constructing dams, diverting tributaries, and engaging in other invasive works that could cause permanent and irreversible harm to other riparian states' interests and the natural environment.[122] These obligations are necessary to reconcile sovereign equality and joint stewardship with the often-slow pace of international dispute resolution.

[117] See UN General Assembly, 'Declaration on Principles of International Law Concerning Friendly Relations and Co-operation Among States in Accordance with the Charter of the United Nations', 24 October 1970, UN Doc. A/RES/25/2625, p. 123 ("The parties to a dispute have the duty, in the event of failure to reach a solution by any one of the above peaceful means, to continue to seek a settlement of the dispute by other peaceful means agreed upon by them.").

[118] See WTO, United States—Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Art. 21.5 by Malaysia, Report of the Panel, 15 June 2001, WT/DS58/RW [hereinafter Shrimp/Turtle AB II] (noting that provisional measures are permissible under international law because otherwise "any country party to ... negotiations ... would have, in effect, a veto over [other states]," which "would not be reasonable").

[119] Dispute Regarding Navigational and Related Rights (Costa Rica/Nicaragua), Judgment, 2009 ICJ Rep. 213, 252 para. 95 (13 July) (explaining that a duty to provide notice arises when one state regulates a resource over which another state also has rights).

[120] See Shrimp/Turtle AB II, para. 153(b) (concluding that regulatory standards imposed unilaterally by the United States were permissible on a provisional basis, provided that the parties continued to pursue "ongoing serious good faith efforts to reach a multilateral agreement").

[121] Hugh Thirlway, *The Law and Procedure of the International Court of Justice: Fifty Years of Jurisprudence* (Oxford: Oxford University Press, 2013), p. 22.

[122] See Delimitation of the Maritime Boundary Case (Guy./Surin.), PCA 2004–04, para. 470 (17 September 2007) ("It should not be permissible for a party to a dispute to undertake any unilateral activity that might affect the other party's rights in a permanent manner.").

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The Promise and Perils of Mandatory Cooperation

As the twenty-first century rolls onward, fresh water might be insufficient in some regions to meet the needs of swelling populations during an era of climate change and rapid economic development. Experts anticipate that by mid-century, 3.1 billion people will live in urban areas with seasonal water shortages.[123] International cooperation will be essential in this perilous new world of freshwater scarcity to respect, protect, and fulfill human rights, while safeguarding international peace and security.

Regrettably, international cooperation can also aggravate some of the very problems it aspires to solve. Consider the majestic Mekong River, which rises in China and traverses Laos, Myanmar, Thailand, and Cambodia before draining into the South China Sea through Vietnam's sprawling "Nine Dragon" river delta. Since the early 1990s, a spirit of robust regional cooperation[124] and an influx of foreign investment have enabled states to construct over three hundred hydroelectric dams along the Mekong.[125] This cooperative ethos has quickened the pace of development and enriched elites throughout the river basin, but at a terrible human and environmental cost. Dams have cut off the natural flow of nutrient-rich silt from China, endangering rice production and inland fisheries along the river's course. Eighty percent of the inhabitants of the Mekong River Basin – over sixty million people – depend upon these dietary staples for survival. Meanwhile, the basin's vibrant biodiversity, with over 20,000 types of plant and nearly 2,500 animal species, including freshwater dolphins and giant catfish, is tilting rapidly toward ecological collapse. Thus, national authorities in Mekong states have harnessed international cooperation to achieve economic development at the expense of fragile ecosystems and the most vulnerable members of their societies.[126]

[123] Weiss, *International Law for a Water-Scarce World*, p. 1.

[124] This so-called "Mekong Spirit" finds expression, inter alia, in the 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, 5 April 1995, 34 ILM 864 (1995).

[125] McCaffrey, *The Law of International Watercourses*, pp. 285–286; Kinna and Rieu-Clarke, *The Governance Regime of the Mekong River Basin*, pp. 27–28.

[126] Hannah Beech, '"Our River Was Like a God": How Dams and China's Might Imperil the Mekong', NY Times, 12 October 2019; Kay Johnson and Panu Wongcha-um, 'Water Wars: Mekong River Another Front in U.S.-China Rivalry', Reuters, 24 July 2020; 'Requiem for a River: Can One of the World's Great Waterways Survive Its Development?', Economist, www.economist.com/news/essays/21689225-can-one-world-s-great-waterways-survive-its-development [hereinafter Requiem].

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Given that international cooperation has caused the Mekong's ecological crisis, it might seem counterintuitive to recommend more international cooperation as a solution. But multilateral engagement is the only plausible and potentially legitimate path to save the Mekong. The environmental harm wrought by proliferating dams cannot be reversed by any single state unilaterally; it requires collective action by the entire community of riparian states – including China, which has invested heavily in dam construction throughout the region.[127] Mekong states will have to share the costs and benefits of environmental conservation. To determine what equity and environmental stewardship require in this context, they must collect and share information regarding relevant factors such as their respective dependence on hydropower, the ecological health of the river, and the impact of dams and other works on their domestic agriculture and fishing. They will have to negotiate in good faith or agree to resolve their differences through third-party dispute resolution. In short, they will have to jointly embrace mandatory cooperation.

[127] Requiem.

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