
Articles

Peace Like a River: Institutionalizing Cooperation Over Water Resources in the Jordan River Basin

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I. INTRODUCTION

In January 2008, United Nations (“UN”) Secretary-General Ban Ki-moon commented on the coincidence of water and conflict at the World Economic Forum. Pointing out that the world’s thirst will grow alongside its economy and that “many more conflicts lie over the horizon,” he observed that “too often, where we need water, we find guns.”¹ Some observers are quick to point to the coincidence of armed conflict in regions of water scarcity and resort to syllogism, often labeling them “water wars.”² While the term serves as a nice, clean soundbite, it overstates and oversimplifies a very real problem in a way that is simply irresponsible. More worryingly, it communicates the zero-sum world of the battlefield, creating a narrative of “us versus them” which only perpetuates a false choice where one party must clearly lose and the other clearly gain. Practice demonstrates that water can often be put to multiple beneficial uses, and that the zero-sum world of the battlefield has very little analogue to responsible management of water resources. Disputes, however—and especially those around water—can build and aggravate already tense social and political frameworks that ignite into armed conflict.

Conflicts between the various parties in the Jordan River Basin, as well as those between riparians along the Indus, Nile, and Yangtze Rivers, carry the signatures of the unfortunate coincidence of armed conflict and water stress. Armed conflict in areas of water stress, however, need not be a foregone conclusion and perhaps observers ought to be more circumspect in their reference to “water wars.” Indeed, some observers have pointed out that such “water wars” are unlikely to occur given how critical the resource is.³ Regardless of the merits of this kind of post-modern argument, the Secretary-General’s sad observation above holds true.

In significant part, if not in whole, the two scenarios of water stress and armed conflict can be understood as the natural product of the absence of sufficiently robust institutions equipped to provide basic services, beginning with fresh water and social stability. As is usually the case with armed conflict, the leaders who are responsible for the failure of institutions to provide basic stability for their people are not the ones who bear the consequences of that failure; unfortunately, those consequences

¹ *Streams of Blood, or Streams of Peace*, THE ECONOMIST (May 1st, 2008), <http://www.economist.com/node/11293778>.

² See FRED PIERCE, WHEN THE RIVERS RUN DRY 167 – 181 (2006).

³ Joseph W. Dellapenna, *Rivers as Legal Structures: The Examples of the Jordan and the Nile*, 36 NAT. RES. J. 217, 220 (1996).

are often passed on to the helpless and disenfranchised, while those responsible often retreat to rhetoric and reticence.

In his book *Political Order and Political Decay*, Professor Fukuyama echoes the observation that “conflict is itself driven by weak institutions.”⁴ Accordingly, this paper approaches its topic from an institutional perspective, operating under the premise that conflict, error, and other forms of non-, mis-, or malfeasance are often reflections of flaws embedded in the institutional framework—meaning flaws in the various rules that govern organization, communication, and decision-making and that inform heuristics and other behavioral expectations. Of course, no human institution is perfect. But it is inexcusable when decision-makers refuse to address flaws in the systems over which they are charged to steward—especially when those flaws express themselves in armed conflict. Or it ought to be.

This paper argues that an international agreement creating a governing body and institutionalizing decision-making processes and behavioral expectations regarding the waters of the Jordan River may help alleviate conflicts in the region as they relate to water, in an admittedly small move toward a durable peace in the region. The first part of this paper discusses the history of conflict in the region, and highlights the region’s hydrology—both natural and man-made—and how that hydrology coincides with expressions of conflict. The second part outlines historical attempts to create a basin-wide agreement regarding the use of water in the region. As such, it walks through several bilateral agreements, as well as the various legal regimes of the five States involved. The third part holds the Nile Basin Cooperative Framework Agreement up as an example of how the principles contained in the UN Watercourses Convention can be applied to create an institution that facilitates cooperation between co-riparians. Finally, this paper calls for negotiating a Jordan River Basin Cooperative Agreement, and establishing a Jordan River Basin Commission with the requisite institutional capacity to both absorb and settle disputes and avoid conflict.

II. WATER AND GUNS IN THE JORDAN RIVER BASIN

Unfortunately, the presence of conflict in the Jordan River Basin is nearly ubiquitous. It is not much of an overstatement to say that some species of conflict has been waged between the various factions and States there since 1948, with a new conflict expressing itself every few years in

⁴ FRANCIS FUKUYAMA, *POLITICAL ORDER AND POLITICAL DECAY* 287 (2014).

a seemingly endless and tragic cycle of death, destruction, and deprivation. For purposes of this paper, the terms “conflict” and “armed conflict” are meant to express incidences of organized violence, regardless of the level of organization of the actor involved, and regardless of whether such violence meets the threshold of “war”—which is itself often a politically-labeled expedient intended to justify institutionalized violence. As used in this paper, the term “dispute” pertains to any disagreement short of that actual violent expression. Ignoring whatever semantic, political, or legal difference there may be between “armed conflict” and “war,” the reality remains that the Jordan River Basin’s history is one steeped in violence; this history must be appreciated and taken into account in any discussion of improved cooperation among the several riparians to their shared water resources.

A. The Jordan River Basin: No Peace in the Valley

The history of conflict in the Jordan River Basin can find its modern origins in the Arab Revolt, recounted so eloquently by T.E. Lawrence,⁵ where Britain and France allied with Arab leaders on the Arabian Peninsula as part of an Allied strategy to remove the Ottoman Empire from the so-called “War to End War.” The Sykes-Picot Agreement divided the remains of the Ottoman Empire between Britain, France, and Russia; those lines drawn in the sand still exist today. Upon Britain’s withdrawal from its Palestinian mandate in 1948, Israel declared independence and the resulting Arab-Israeli War ensued. The bifurcated narrative of which side was the initial instigator is eerily familiar to modern ears.⁶

Since that withdrawal in 1948, at least ten distinct armed conflicts have been fought in the region.

- The 1956 Suez War between Israel and Egypt was triggered when Egypt nationalized the Suez Canal, threatening European sea-shipping.
- In the infamous 1967 Six-Day War, Israel responded splendidly—if not over-enthusiastically—to a simultaneous attack by both Jordan and Egypt. The Six-Day War resulted in Israeli control over, among others, the Gaza Strip, West Bank,

⁵ See generally T.E. LAWRENCE, SEVEN PILLARS OF WISDOM (2013).

⁶ See Robert H. Mnookin, et al., Barriers to Progress at the Negotiation Table: Internal Conflicts Among Israelis and Among Palestinians, 6 Nev. L.J. 299, 303-04 (Winter 2005-2006).

and the Golan Heights—all names still relevant to the current tension in the region.

- In the 1969 War of Attrition, Egypt sought to regain control of the Sinai Peninsula from Israel and lost.
- The 1973 Yom Kippur War saw another simultaneous attack against Israel, this time by Egypt and Syria, in which Israel responded aggressively, driving its armies to within twenty-five miles of Damascus and sixty-three miles of Cairo.
- The First Intifada in the 1980s saw the Palestinian Liberation Organization conduct decentralized guerilla-style tactics against Israeli forces in Palestine and in Israel proper.
- In the 1991 Gulf War, in an effort to unite Arab nations against the U.S.-led coalition, Iraq launched a number of Scud missiles at Israel hoping to draw it into the fight.
- The 1990's saw the al-Qud Intifada, where Palestinians again launched a series of attacks in Israel and against Israeli forces in Palestine.
- The Lebanon War in 2002 saw Hezbollah fighters infiltrate the border from Lebanon into Israel.
- In the ongoing Fatah-Hamas conflict since 2006, otherwise known as the Palestinian Civil War, the two main Palestinian political parties are embroiled in a conflict that resulted in the split of the Palestinian Authority in 2007.
- In addition, the “Arab Spring” has resulted in various civil wars, including for purposes of the scope of this paper, Syria and Egypt, the Syrian Civil War having spilled over at times into Lebanon.

Importantly, and tragically, this list does not include the innumerable less-organized or less-formalized acts of violence, from rockets being fired from the West Bank into Jerusalem neighborhoods, to indiscriminate strikes against unarmed Palestinians by American-made attack helicopters. The perpetuity of conflict in the region has for obvious reasons created animus and a fundamental distrust, and has led to a culture of non-cooperation between the groups involved, including the waters of the Jordan River Basin. And while it may seem attenuated to connect the region's water woes to its conflicts, there is reason to believe that cooperation regarding the region's water resources may help to stem the tide of blood. At the very least, removing water from the conflict calculus in the region cannot be anything but a step in the right direction toward achieving durable peace.

B. Hydrology of the Jordan River Basin

Over 100 million years ago, the Afro-Syrian Rift began to develop and changed the hydrology of the Middle Eastern region. Before the Rift developed, waters that began in Iran and Iraq gently flowed west across a relatively flat plane from the Euphrates Valley to the Mediterranean Sea. The Rift divided this vast hydrologically-unified area in two, and resulted in the present-day Jordan River Basin.⁷ The streams of the Basin begin in the north, among the hills of Syria, Lebanon, and Israel, their waters joining to form the Jordan River, flowing south into the Sea of Galilee,⁸ and from there into the Dead Sea, which happens to be the lowest place on earth with the highest salt content of any body of water.⁹

The Jordan River, as well known as it is, is not an impressive river based upon its flow, which is only about one percent of the total flow of the Nile River.¹⁰ As for the entire basin, the maximum estimated annual supply of water is only about 891,785 acre-feet.¹¹ The importance of appreciating this rather modest resource is further highlighted by the disputes between the various riparians' claims to its relatively limited waters. The Jordan River consists of the Upper Jordan (above the Sea of Galilee) and the Lower Jordan (from the Sea of Galilee to the Dead Sea). The Upper Jordan is formed initially by three main tributaries, Lebanon's Hasbani River, Israel's Dan River, and Syria's Baniyas River, where they join and eventually flow generally south into the Sea of Galilee at its northern shore. As the River's waters continue to flow south out of the Sea of Galilee into the Lower Jordan, they are fed by the Yarmouk River, which begins in Syria and initially forms the border between Syria and Jordan, and later that between Jordan and Israel. Pre-diversion, the Yarmouk is estimated to contribute forty percent of the Jordan River's annual flow.¹² Before the Lower Jordan reaches its terminus at the Dead Sea, it is again fed by another tributary, the Zarqa River, flowing west from

⁷ Richard Laster et al., *The Sound of One Hand Clapping: Limitations to Integrated Resources Water Management in the Dead Sea Basin*, 22 PACE ENVTL. L. REV. 123, 124 (2005) [hereinafter Laster et al., *The Sound of One Hand Clapping*].

⁸ *Id.* Also known as the Kinneret and Lake Tiberias; the Sea of Galilee appears to be the most commonly-used name.

⁹ *Id.* at 125.

¹⁰ *As Thick as Blood: Water in the Middle East*, THE ECONOMIST 53–55 (Dec. 23, 1995).

¹¹ DANIEL HILLEL, RIVERS OF EDEN: THE STRUGGLE FOR WATER AND THE QUEST FOR PEACE IN THE MIDDLE EAST 174 (1994).

¹² STEPHEN McCAFFREY, THE LAW OF INTERNATIONAL WATERCOURSES 369 (2d ed. 2007) [hereinafter McCAFFREY, INTERNATIONAL WATERCOURSES].

the hills of Jordan. In all, fully seventy seven percent of the Jordan River's waters are estimated to begin in Arab countries.¹³

There are also four aquifers in the Basin: the Coastal, Northern, Western, and Eastern Aquifers, though consensus on the name and boundaries of these groundwater resources seems to be lacking.¹⁴ While most of the current disputes revolve around use of the aquifer beneath the West Bank, it is important to note that isolating the region's underground water resource challenges to one aquifer commits a dangerous oversimplification. Israel's heavy reliance on that resource, as well as the hydrological realities of the interaction in the region between ground and surface water, add a significant layer of complexity. This complexity is further highlighted by the fact that over-extraction can lead to salt water intrusion of aquifers such as the Coastal Aquifer, affecting the quality of that water resource.¹⁵

C. *The "Control of Nature" and Water in Conflict*

In addition to the natural hydrology of the Jordan River Basin, in order to truly understand how water moves in the region, we must also appreciate man's various attempts to bring water where gravity, geography, and hydrology would otherwise not permit. John McPhee quite poignantly related man's attempts to control nature in three distinct scenarios, one of which involved the Mississippi River in the United States;¹⁶ as he highlights in that scenario, perhaps nowhere is our impulse to control nature better expressed than in our attempts to manage water resources. The Jordan River Basin is certainly no exception. Unfortunately, often the exercise of this impulse does not seem to result in durable and sustainable solutions, and may only encourage disputes between riparians, which, in some circumstances, may give rise to conflict.

¹³ *Id.*

¹⁴ *Id.* at 319 ("A large aquifer underlies the mountainous area of the West Bank... [which has been] divided into three geologically distinct basins... the Western, Eastern, and Northeastern Aquifers."); see Ian J. Silverbrand, *The History and Potential Future of the Israeli-Palestinian Water Conflict*, 44 STAN. J. INT'L L. 221, 225 (2008) ("The West Bank Aquifer... underlies the West Bank and Israel and is recharged by rainfall.") [hereinafter Silverbrand, *Israeli-Palestinian Water Conflict*]; see generally Rose M. Mukhar, *The Jordan River Basin and the Mountain Aquifer: The Transboundary Freshwater Disputes Between Israel, Jordan, Syria, Lebanon and the Palestinians*, 12 ANN. SURV. INT'L & COMP. L. 59 (2006).

¹⁵ See ERWIN COOPER, *AQUEDUCT EMPIRE* 139 (1968) (Los Angeles' experience with sea water intrusion).

¹⁶ See generally JOHN MCPHEE, *THE CONTROL OF NATURE* (1989).

1. Controlling Water in the Jordan River Basin

Israel's National Water Carrier diverts water from the northwestern shore of the Sea of Galilee to the west, where the canal remains conspicuously inside Israel as it travels along the coastal plain to Tel Aviv and then on to the Negev Desert to the south and outside the Jordan River Basin.¹⁷ Similarly, and not to be outdone, Jordan has developed its own canal system on the east side of the Jordan River channel. Originally meant to be part of the Greater Yarmouk Project, the East Ghor Canal diverts Yarmouk River water before it reaches the Jordan River, carrying it south for Jordanian irrigation. The Greater Yarmouk Project at one point also included plans for the Mukheiba Dam along the Yarmouk as a storage dam for Jordan water.

These canals, the construction of dams on the Litani River in Lebanon¹⁸ and on the Yarmouk, pumping stations that extract West Bank Aquifer water, and desalination plants along the Mediterranean, all point to the way that man has changed the hydrology of the Jordan River Basin. Additionally, Jordan and Israel at one point announced their joint support for a "Peace Canal" to bring desalinated water from the Red Sea into the Jordan River Basin to reinforce existing water supplies there.¹⁹

2. Water in Conflict

Israel considers its National Water Carrier a matter of national security and as a result is loath to divulge the amount of water it is capable of diverting from the Jordan River.²⁰ Israel's first announcement of its intention to build the National Water Carrier was met with heavy resistance from its co-riparians. Though Syria preferred a "military response,"²¹ the Arab League adopted a plan to divert the waters of the Hasbani and Baniyas Rivers, both of which are tributaries to the Jordan River and both of which originate in Arab countries. This proposed diversion was estimated to reduce by thirty five percent Israel's capacity to divert water for its National Water Carrier. Addressing the Arab League's plan, Israel's then-Foreign Minister warned that "any move by the Arab countries to divert the headwaters of the Jordan River would

¹⁷ MCCAFFREY, *supra* note 12, at 312.

¹⁸ Though the Litani is not naturally part of the Jordan River Basin, we will see below how man's attempt to affect water resources in the region have for all practical purposes incorporated the Litani into Jordan River Basin water management schemes.

¹⁹ Laster et al., *supra* note 7, at 123.

²⁰ MCCAFFREY, *supra* note 12, at 312.

²¹ *Id.* at 313.

constitute ‘an outright attack on one of Israel’s means of livelihood’ . . . [and] would be regarded as ‘a threat to peace.’”²² Though the Arab League never took any direct action against the National Water Carrier, its Defense Council agreed to the “use of force” to prevent Israel’s plan from reaching its potential.²³ This kind of saber rattling does not bode well.

Jordan’s East Ghor Canal is the other large diversion project in the Jordan River Basin. As part of the Greater Yarmouk Project discussed above, the East Ghor Canal was financed by Jordan and the United States, with cooperation from Syria, Jordan’s co-riparian on the Yarmouk. By June 1963, the canal is estimated to have been diverting more than 99,000 acre-feet from the Yarmouk annually.²⁴ However, Israel has “knocked [it] out of service on four separate occasions between 1967 and 1971[,]”²⁵ the same time period as the Six-Day War and escalating tension between the states in the Basin. Israel also intervened militarily in 1967 to stop construction of the Mukheiba Dam, an important storage component of the Greater Yarmouk Project.²⁶ Because of the reduced storage capacity absent the Mukheiba Dam, Jordan’s East Ghor Canal has “never been able to reach its full potential.”²⁷

One final example of the coincidence of water and conflict in the Jordan River Valley can be found at the Wazzani Springs in Lebanon. These springs feed the Hasbani, a main tributary of the Jordan River. A Lebanese pumping station at the springs had been destroyed by Israel in 1967; in 2002 Lebanon announced the construction of a new pumping station.²⁸ The new plan would deliver water to sixty Lebanese villages for drinking and irrigation. Israel’s prime minister reportedly characterized the Lebanese project as “*casus belli*,”²⁹ a threat made more credible given Israel’s prior attack on the first pumping station. Hezbollah, gathered on the Lebanese border with Israel, warned that it would retaliate against any attack on the plant by Israel.³⁰ Given the fact that just four years later Lebanon and Israel would be embroiled in another war, the bristling and bearing of teeth by the opposing states is particularly ominous.

²² *Id.*

²³ *Id.* at 314.

²⁴ MIRIAM R. LOWI, WATER AND POWER: THE POLITICS OF A SCARCE RESOURCE IN THE JORDAN RIVER BASIN 116 (1995).

²⁵ *Id.* at 177.

²⁶ MCCAFFREY, *supra* note 12, at 313.

²⁷ *Id.*

²⁸ *Id.* at 317.

²⁹ *Id.* “*Casus belli*” is a Latin phrase meaning justification for acts of war.

³⁰ *Id.*

While attempts to draw a direct correlation between water resource scarcity and conflict may appear attenuated, what cannot be denied is the coincidence of conflict in the Jordan River Basin and the various riparian's attempts to assure reliable delivery of water. To avoid future conflict, or at the very least to remove water from the conflict calculus, water in the region must begin to be approached from a larger regional perspective, instead of from a tribal and religious one. An agreement that facilitates cooperation between all of the Jordan River's riparians is "clearly needed" in the basin.³¹

III. WATER MANAGEMENT OF THE JORDAN RIVER BASIN

Management of the Jordan River Basin's water resources has a long and complicated history—a history that is only further complicated by the perpetual existence of conflict in the region. Appreciating how the various parties have historically approached water will help shed light on the current water management system.

A. *The "Right of Thirst"*

While it would be unfair to overstate the role that traditional religious law plays with the region's various approaches to water, the fact is that both Judaism and Islamic law recognize a "Right of Thirst."³² One author has concluded that "the ancient laws of the Talmud and the Koran . . . contain certain fundamental similarities as regards water regulation, priorities of use and sharing."³³ Under the Jewish law, the "Right of Thirst—that no person should be denied water to quench his thirst regardless of membership in the community and regardless of the location of the water body—is the most dominant rule regarding water distribution[.]"³⁴ An approach based on the common right of all people to water, Jewish law recognizes that "all naturally occurring bodies of water . . . [are] the right of all—not just of the private property owner or of the community members."³⁵ This traditional approach to water sharing cannot

³¹ *Id.*

³² Silverbrand, *supra* note 14, at 241

³³ Melanne Civic, *A Comparative Analysis of the Israeli and Arab Water Law Traditions and Insights for Modern Water Sharing Agreements*, 26 DENV. J. INT'L L. & POL'Y 437, 440–42 (1998) [hereinafter Civic, *Israeli and Arab Water Law Traditions*].

³⁴ Silverbrand, *supra* note 14, at 241–42.

³⁵ Civic, *supra* note 33, at 440.

be dismissed as archaic, for in 2002 one scholar pointed out that “modern Israeli law declares water use to be a right of all people of Israel, and states that water resources belong to all members of the community at large.”³⁶ Both in its traditional and modern context then, the Jewish tradition can be said to recognize a “Right of Thirst,” a right also recognized by her copararians through Islamic law.

There are two important water rights in Islamic water law, one of which is the “Right of Thirst.”³⁷ Thus, “[n]o one can refuse surplus water without sinning against Allah and against man.”³⁸ Under Islamic law, “[s]haring water [is] considered a holy duty.”³⁹ Some Islamic commentators have suggested that “the Prophet [Mohammed] established a community right to water use” by forbidding the acquisition of a property interest in a natural water resource.⁴⁰ Attempts to oversimplify and exaggerate the similarities between Jewish and Islamic law are easy, but it is important to note that there are distinctions. For example, while the Jewish “Right of Thirst” clearly pertains to “all naturally occurring bodies of water[,]”⁴¹ the Islamic counterpoint may apply to artificial sources of water as well; under Islamic law, “an owner of an artificial water source is not permitted to deny water to the needy.”⁴² This highlight of an artificial water source is likely a legacy of the role that wells continue to play for Bedouin tribesman in the Arabian Peninsula, which is where the Islamic tradition originated with the Prophet Muhammed.⁴³

As discussed above, given the various attempts to control the natural water resources in the Jordan River Basin, the distinction between a natural and artificial water source may be misleading, as distinguishing the difference between a “naturally occurring” body of water versus an “artificial water source” may be too fine a line to be worth drawing. For example, arguments could easily be made that, due to the various storage and diversion projects in the Basin, as well as the presence of sewage in

³⁶ HILAL ELVER, PEACEFUL USES OF INTERNATIONAL RIVERS: THE EUPHRATES AND TIGRIS RIVERS DISPUTE 50 (2002).

³⁷ DANTE A. CAPONERA, PRINCIPLES OF WATER LAW AND ADMINISTRATION: NATIONAL AND INTERNATIONAL 70 (2d ed. 2007).

³⁸ *Id.* at 69.

³⁹ Civic, *supra* note 33, at 442.

⁴⁰ ELVER, *supra* note 36, at 41.

⁴¹ Civic, *supra* note 33, at 440.

⁴² *Id.* at 442-43.

⁴³ *See generally* Lawrence, *supra* note 5 (For a fascinating account of the importance of wells as reliable sources of water, where Mr. Lawrence makes a cogent argument that nearly the entire Arab Revolt was maintained through exploitation of the various wells in the region.)

the Jordan River and increasing salinity in the Dead Sea, that the entire Jordan River Basin is no longer a “naturally occurring” system. Regardless, the fact that two of the major religious traditions in the region both recognize a “Right of Thirst,” provides important context as well as a relevant framework to approach a unified legal institution between the various legal frameworks of the Jordan River Basin riparians.

B. Historical Attempts at Cooperation

First, it is important to note that there have been previous attempts to reconcile the competing claims to water in the Jordan River Basin. One of the first of such designs was the Franghia Plan of 1913, when the region was still in the control of the Ottoman Empire.⁴⁴ The primary purposes of the Franghia Plan were to irrigate the region and explore ways to provide electricity; echoes of these biases still ring in current policies. The Franghia Plan collapsed with the fall of the Ottoman Empire after the first World War.⁴⁵

Before Israeli independence, when the region was still largely controlled by Britain and France under the Sykes-Picot Agreement, Britain’s Professor W.C. Lowdermilk attempted to implement a plan based on the United States’ Tennessee Valley Authority, whose primary purposes included irrigation control and power production. The Lowdermilk Plan involved diverting Litani and Jordan River water to irrigate the Negev desert.⁴⁶ Britain’s abdication of its Palestinian mandate, as well as Israeli independence, led to this plan’s collapse and obscurity.

At the time Israel declared its independence, each riparian in the basin was withdrawing water from the Jordan River unilaterally as each required. In 1953, the UN asked Charles Main to develop a plan to allocate the basin’s water resources.⁴⁷ Sometimes called the “UN-TVA” plan, sometimes the “Main Plan”, it attempted to outline the utilization of the Jordan Valley’s water resources without regard to political boundaries.⁴⁸ It called for the “effective and efficient use of the water resources of the Jordan Valley emphasizing, first irrigation and second, the production of

⁴⁴ Laster et al., *supra* note 7, at 127.

⁴⁵ *Id.*

⁴⁶ *Id.* at 128.

⁴⁷ *Id.*

⁴⁸ See generally CHAS. T. MAIN, INC., *THE UNIFIED DEVELOPMENT OF THE WATER RESOURCES OF THE JORDAN VALLEY REGION* (1953).

hydroelectric power.”⁴⁹ However, none of the parties were content with the allocations, each believing their share to be insufficient.

In 1953, U.S. President Dwight Eisenhower appointed Eric Johnston as Special Ambassador to “undertake discussions . . . looking to the mutual development of the water resources of the Jordan River Valley on a regional basis for the benefit of all the people of the area.”⁵⁰ As a starting point, Johnston asked all sides to submit counterproposals of their own to the Main Plan, which resulted in the Arab Plan (submitted by the Arab League) and the Cotton Plan (submitted by the Israelis).⁵¹

After reviewing both plans, and through continued discussions and negotiations with the parties, Johnston developed what has become known as the Johnston Plan. The Johnston Plan provided for specific allocations for each riparian: 132 MCM/year for Syria; 35 MCM/year for Lebanon; 466 MCM/year for Israel; and 480 MCM/year for Jordan.⁵² These numbers are often cited today by the various States, and often only when they find them convenient. The West Bank was, at the time of the Johnston Plan, still part of Jordan,⁵³ and therefore, of the water allocated to Jordan, it was understood that “some 150–200 MCM/year would be transferred to the West Bank.”⁵⁴ Additionally, the Johnston Plan called for the Sea of Galilee to be used as a storage reservoir, the construction of a dam on the Yarmouk to store water and provide hydroelectricity, and a dam on the Hasbani in order to allow Lebanon to meet its allocation.⁵⁵ Israel’s attempt to incorporate the Litani through the Cotton Plan was abandoned because Johnston “could not insist on incorporating a strictly national river” into an international water management framework.⁵⁶

Although the Johnston Plan was accepted by the four riparians at the time (note that Palestine’s interests were apparently represented by

⁴⁹ *Id.*

⁵⁰ AMERICAN JEWISH COMMITTEE, WATER AND POLITICS IN THE MIDDLE EAST: AN ANALYSIS OF ARAB, ISRAELI AND INTERNATIONAL EFFORTS TO DEVELOP THE JORDAN RIVER SYSTEM 7 (1964) (citing 4 Middle Eastern Affairs, 413 (1953)).

⁵¹ Silverbrand, *supra* note 14, at 229.

⁵² GEORGIANA G. STEVENS, JORDAN RIVER PARTITION 15 (1965)

⁵³ Though Laster points out that “Jordan’s previous sovereignty over the West Bank has been questioned[.]” Laster et al., *supra* note 14, at 129 n.31. Though Laster points out that “Jordan’s previous sovereignty over the West Bank has been questioned[.]” *Id.*

⁵⁴ Silverbrand, *supra* note 14, at 230.

⁵⁵ *Id.*

⁵⁶ SAMIR N. SALIBA, THE JORDAN RIVER DISPUTE 106 (The Hague: Martinus Nijhoff, 1968) (quoting United States Department of State, Summary of 1955 Unified Plan 1, (1965) (mimeographed)).

Jordan), it was never formally ratified by any of them.⁵⁷ Regardless, Israel and Jordan both “informally adhered” to the Johnston Plan for a “significant period of time,” though recently Israel has been reluctant to apply the principles articulated in the plan during negotiations, arguing that “conditions . . . have changed” and that it was a nonbinding agreement.⁵⁸

C. National Legal Frameworks for Water Management

In addition to the various bilateral agreements entered into above, each State has varying legal frameworks that manage and administer its water resources.

1. Israeli Water Law

Israel passed the Israel Water Law of 1959, holding that “water is owned by the public, controlled by the state, and to be used for the purposes of the habitants of the state and the development of the country.”⁵⁹ The Water Law vested the authority to decide who gets how much water and what quality in a Water Commissioner.⁶⁰ For the purposes of granting the broadest scope of control to the Water Commissioner in his yearly allocations, the Water Law defines water resources to include “springs, streams, rivers, lakes, and other currents and accumulations of water, whether above ground or underground, whether natural, regulated or made, and whether water rises, flows or sands therein at all times or intermittently, and includes drainage water and sewage water.”⁶¹ One scholar points out that this generous definition effectively grants the Water Commissioner “control [over] the water table in one’s toilet bowl.”⁶²

Two other laws, the Drainage and Flood Control Law and the Streams and Springs Authority Law, provide a framework for river basin management in the country by establishing drainage boards and river authorities.⁶³ The eleven drainage boards which cover the entire country have the “authority to build, change, and maintain drainage systems within

⁵⁷ Silverbrand, *supra* note 14, at 231.

⁵⁸ *Id.* at 231-32.

⁵⁹ Laster et al., *supra* note 7, at 136.

⁶⁰ ISRAELI MINISTRY OF FOREIGN AFFAIRS, *The Water Law of 1959*, (1998), <http://mfa.gov.il/MFA/PressRoom/1998/Pages/The%20Water%20Law%20of%201959.aspx>; *see also* Laster, et al., *supra* note 7, at 136-37.

⁶¹ *Id.*

⁶² Laster, et al., *supra* note 7, at 37 n.66.

⁶³ *Id.* at 137.

their boundaries in order to prevent runoff and health hazards from flooding.”⁶⁴ The two river authorities have the “power to regulate the flow of water, control pollution, and to protect the areas along the banks of streams and rivers and around springs.”⁶⁵ Israel, through its three major laws regarding water in the country, has a robust legal framework for the allocation, delivery and treatment of its water resources, something that its co-riparians should emulate.

2. *Palestinian Water Law*

Because of its complicated history, Palestine has a similarly complicated water legal regime. Each time a successive power has exercised authority over Palestine, it has “passed its own laws on top of the laws that were already in force,” thus there are echoes of Turkish, British, Jordanian, and Israeli law present.⁶⁶ Under Turkish law, the *Mejelle*, private ownership in water was not allowed, though in what is clearly an expression of Islamic law, it allowed for “limited private ownership of wells and springs located entirely on private property.”⁶⁷ Subsequent Jordanian water law allowed for ownership of water resources, so long as that ownership was related to the ownership of land.⁶⁸ Later, Israeli law, as seen in the Israel Water Law, “declared [that] all water resources in the region [are] state property.”⁶⁹ Water in Palestine has been treated under constantly changing legal frameworks in the past 100 years.

The reality of Israel’s military occupation of the West Bank and Gaza Strip also play an important role. Military Order No. 158 of 1967 states that “all [Palestinian] wells, springs and water projects are under the direct control of the Israeli Military Governor.”⁷⁰ The importance and resulting tension regarding the access to and use of these wells and springs to the Palestinians are highlighted in Pierce’s account of the Palestinian village of Madama, in the West Bank.⁷¹ Further, Military Order No. 291 of 1968 changed the ownership of Palestinian water resources from private to public ownership, “in conformity with the Israeli Water Law of 1959,

⁶⁴ *Id.* at 137-38.

⁶⁵ *Id.* at 138.

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ Comm. on the Exercise of the Inalienable Rights of the Palestinian People, Water Resources of the Occupied Palestinian Territory, UN Doc. A/AC. 183/-, at 27 (1992) (hereinafter UN Committee).

⁷¹ PEARCE, *supra* note 2, at 157-58.

which had nationalized water resources in Israel.”⁷² Justifying these Orders, “[t]he Israeli military authorities rely on security grounds . . . [and] argue, correctly, that an occupying power has the right to carry out many actions . . . if necessary to protect its own security.”⁷³

The Water Law of 2002 of the Palestine National Authority declared that all water resources in Palestine are public property, and further recognizes that every person has a right to water.⁷⁴ This is an obvious expression of the “Right to Thirst” discussed in Annex II. The Palestine Water Authority, the creation of which was required under the Declaration of Principles, discussed above, has the power to suggest water allocations and determine the priorities of use within the areas of Palestine civil control as articulated in the Oslo II Accords in 1995, namely Areas A and B, but not Area C.⁷⁵ The Palestine Water Authority has the power to merely “suggest” allocations, a recognition of its apparent dependency on Israeli approval.

3. *Jordanian Water Law*

In 1988, Jordan declared that all water resources in the Kingdom of Jordan are “state owned property and shall not be used or transferred except in compliance with this law.”⁷⁶ Jordan has a Ministry of Water and Irrigation, which is responsible for water, public sewage, the creation and execution of national water policy, and for the “economic and social development of the Jordan Valley.”⁷⁷ Jordanian water law has also created two entities in addition to the Ministry of Water and Irrigation: the Water Authority and the Jordan Valley Authority. The Water Authority is responsible for implementing water policy, regulating water use, developing new water sources, and pollution control and water quality in the Kingdom.⁷⁸ The Jordan Valley Authority is responsible for developing water delivery systems, drainage and flood protection, and irrigation

⁷² UN Committee, *supra* note 70, at 27.

⁷³ EMMA PLAYFAIR, PLAYING PRINCIPLE? ISRAEL’S JUSTIFICATION FOR ITS ADMINISTRATIVE ACTS ON THE OCCUPIED TERRITORIES, IN INTERNATIONAL LAW AND THE ADMINISTRATION OF OCCUPIED TERRITORIES: TWO DECADES OF ISRAELI OCCUPATION OF THE WEST BANK AND GAZA STRIP 205, 223 (1992).

⁷⁴ Water Law, (Act No. 3/2002) at art. 3. (Palestine).

⁷⁵ *Id.* at art. 7(3).

⁷⁶ The Water Authority Law & Amendments Thereof, (Act No. 18/1988) at art. 25(a) (Jordan) (hereinafter The Water Authority Law & Amendments).

⁷⁷ Legal Information Center, Administrative Organization Regulation for the Ministry of Water & Irrigation, No. 54 at art. 4 (1994).

⁷⁸ The Water Authority Law & Amendments, *supra* note 76, at art. 6.

projects.⁷⁹ The Jordan Valley Authority also acts as a tribunal in water disputes.⁸⁰

4. *Syrian and Lebanese Water Law*

The Mejlle Code regulated the use of water in the Ottoman Empire. Upon its collapse, when both Syria and Lebanon were placed under French control, the Mejlle Code continued to govern the use of water, and “still continues, at least partially.”⁸¹ Under the Mejlle Code, water is a “non-saleable commodity to which everyone has a right.”⁸² Due to increased demand and scarcity, there has been a “new impetus to the policy for a codification of water law . . . [and as a result] central water administrations have been created and entrusted with the overall control of water management.”⁸³ Syria has created a Ministry of Public Works and Water, and Lebanon has a Ministry of Water Resources who manages the nation’s water resources.⁸⁴

Thus the various States in the Jordan River Basin have sometimes conflicting, sometimes complimenting legal regimes for managing water resources. The key to facilitating a synthesis of these various legal frameworks and agencies is to provide a broader framework that applies to all of the Jordan Basin States.

D. *Regional Legal Frameworks for Water Management*

1. *The Oslo I Accords and The Declaration of Principles*

Israel and the Palestinian Authority signed the Oslo I Accords in 1993, after years of secret discussions between the Palestinian Liberation Organization and Israeli delegates. The resulting Declaration of Principles (“Declaration”) included cooperation regarding water resources, developing methods for such cooperation, and plans for the equitable utilization of shared water resources.⁸⁵ The Declaration also requires the creation of a Palestinian Water Administration Authority to manage water in Palestine.⁸⁶ Importantly, each of the parties formally recognized the

⁷⁹ Laster et al., *supra* note 7, at 139-140.

⁸⁰ *Id.*

⁸¹ CAPONERA, *supra* note 37, at 65.

⁸² *Id.* at 65; CODE CIVIL [C. CIV.] art. 1234 (Ottoman) (“Mejlle”).

⁸³ CAPONERA, *supra* note 37, at 69.

⁸⁴ *Id.* at 68.

⁸⁵ Laster et al., *supra* note 7, at 129.

⁸⁶ Silverbrand, *supra* note 14, at 233.

other, termed “one of the largest hurdles to the solution of distribution of water between Israel and the Palestinian territories.”⁸⁷

2. *The Oslo II Accords and the Interim Agreement*

In compliance with the Declaration, the two parties met again and signed the Oslo II Accords in 1995. Termed the Interim Agreement, it changed the legal status in the West Bank by creating three distinct areas: Areas A, B, and C. The Palestinian Authority was to have complete control over Area A, the security for Area B fell to Israel while civil authority was placed under Palestinian control, and Israel maintained full control over Area C.⁸⁸ The Interim Agreement established a Joint Water Committee (“IPJWC”), with equal representation by Israeli and Palestinian authorities,⁸⁹ charged with managing “all water and sewage related issues in the West Bank.”⁹⁰

Regarding water allocation to the West Bank, the Interim Agreement states that “Israel recognizes the Palestinian water rights in the West Bank,” though that recognition is limited.⁹¹ The Interim Agreement estimates that West Bank Palestinians will require between seventy and eighty MCM/year, which “breaks down to between 28.4 and 32.5 cubic meters per capita per year[,]” or roughly 7,500 to 8,600 gallons for each person for the entire year.⁹² The World Bank has suggested that in order for a country to have “sufficient water for all purposes it would be desirable to have at its disposal at least 1,000 cubic meters (264,171 gallons) [per capita, per year],”⁹³ though the “actual minimum” is more like 1,205 cubic meters (318,327 gallons) per capita per year, assuming best irrigation practices and including use for food and domestic uses.⁹⁴ Palestine’s allocation under the Interim Agreement falls egregiously short of internationally recognized minimums for water use.

⁸⁷ *Id.*

⁸⁸ Laster et al., *supra* note 7, at 130 n.35.

⁸⁹ Siverbrand, *supra* note 14, at 235.

⁹⁰ *Id.* at 235.

⁹¹ *Id.* at 234.

⁹² *Id.* at 234-35.

⁹³ H.I. Shuval, *Are the Conflicts Between Israel and Her Neighbors Over the Waters of the Jordan River Basin an Obstacle to Peace? Israel-Syria as a Case Study*, 123 WATER, AIR, AND SOIL POLLUTION 605, 608 (2000).

⁹⁴ MCCAFFREY, *supra* note 12, at 5-6 n. 25.

3. *The Jordan-Israel Peace Treaty*

The Peace Treaty signed in 1994 between Israel and Jordan also created a Joint Water Committee (“JIJWC”). However, unlike its Israeli-Palestinian counterpart, the JIJWC is not a management body and is given surprisingly little powers beyond monitoring water flows and water quality.⁹⁵ One author has even argued that the JIJWC is nothing more than a “bi-national political structure created to reduce conflict as a forum for dialogue between the states on issues concerning water.”⁹⁶ While this is a noble enough purpose, it seems insincere to create a joint body to manage water and then divest it of a management prerogative or powers of enforcement over the use of water.

However, the Peace Treaty does still accomplish quite a bit in the way of institutionalizing cooperation between the two riparians and pointing toward the potential for continued cooperation. It allocates twenty-five MCM/year of water from the Yarmouk, as long as Israel is allowed to pump an additional twenty MCM/year from the Yarmouk during the winter in exchange for Jordan pumping twenty MCM/year from the Jordan River during the summer.⁹⁷ It also allows Jordan to use “an annual quantity equivalent to that of Israel, provided however that Jordan’s use will not harm” Israeli current uses.⁹⁸ Such an agreement of shared water under the principles of equitable utilization and no harm should be applied in like kind to agreements between Israel and Palestine. Some have suggested that the fact that Israel and Jordan negotiated their “controversial agreement” isolated from public scrutiny and pressure perhaps provided a crucial ingredient to reaching agreement, and may have set an instructive precedent for further agreements between other riparians in the region.⁹⁹

⁹⁵ Laster, *supra* note 7, at 131.

⁹⁶ *Id.*

⁹⁷ Silverbrand, *supra* note 14, at 234.

⁹⁸ Treaty of Peace Between the State of Israel and the Hashemite Kingdom of Jordan, Isr.-Jordan, Oct. 26, 1994, 34 I.L.M. 43, annex II, art. 1, § 2 (c).

⁹⁹ See Silverbrand, *supra* note 14, at 234 (“[A] complete agreement between Israel and the Palestinians with respect to water allocation issues has not been negotiated. Instead, Israel and the Palestinians have continued in their iterative negotiating process in the public eye.”).

IV. MODELS FOR INSTITUTIONALIZING COOPERATION IN THE JORDAN RIVER BASIN

The United Nations Convention on the Non-Navigational Uses of International Watercourses of 1997 (“Watercourses Convention”) “represents the first formal, intergovernmental codification of international law.”¹⁰⁰ Application of the customary legal principles articulated in the Watercourses Convention can provide a basis for cooperation between co-riparians, as the Nile Basin Cooperative Framework Agreement demonstrates.

A. *The UN Watercourses Convention*

Recently ratified, the Watercourses Convention in part considers that “the successful codification and progressive development of rules of international law regarding non-navigational uses of international watercourse [will] assist in promoting and implementing the purposes and principles set forth in Articles 1 and 2 of the Charter of the United Nations.”¹⁰¹ In part, Article 1 states that a purpose of the United Nations is to “maintain international peace and security, to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace[.]”¹⁰² The drafters and signatories to the Watercourses Convention, then, anticipate that this instrument can be effective at least in removing water from the conflict calculus, and have established a variety of substantive and procedural obligations to affect that end.

However, because the definition in Article 2 excludes from the UN Convention groundwater that is unrelated to any surface water, one scholar has pointed out that the Watercourses Convention would not apply to the Mountain or Coastal Plain Aquifer in the Jordan River Basin, and is thus

¹⁰⁰ Hilal Elver, *Palestinian / Israeli Water Conflict and Implementation of International Water Law Principles*, 28 HASTINGS INT’L & COMP. L. REV. 421, 434-35 (2005) [hereinafter Elver 2005].

¹⁰¹ U.N. GAOR, 51st Sess., Supp. No. 49, U.N. Doc. A/51/49, at 2 (May 21, 1997) (U.N. Convention on the Law of the Non-navigational Uses of International Watercourses) [hereinafter Watercourses Convention].

¹⁰² U.N. Charter art. I, ¶ 1.

basically irrelevant¹⁰³ in arid regions like the Middle East. Unfortunately, this betrays a surprisingly unsophisticated analysis of existing international law, as the International Law Commission's Resolution on Confined Transboundary Groundwater ("ILC Resolution") explicitly states that "the principles contained in the [Watercourses Convention may be applied to] confined groundwater, that is groundwater not related to an international watercourse[.]"¹⁰⁴ Furthermore, given the policy considerations behind the application of international legal principles to surface water, that regime "would seem to apply equally to confined transboundary aquifers . . . [perhaps] with even greater force . . . than to groundwater that interacts with surface water."¹⁰⁵

The customary legal principles the Watercourses Convention articulates very much apply to the Jordan River Basin and to the creation of some Authority or Commission for the Basin. Specifically, the principles of "Equitable Utilization" and the "Obligation Not to Cause Harm" should be applied in developing the substantive legal framework. However, in order to truly achieve cooperation, perhaps the procedural obligations deserve the most attention, as those procedures will best assure cooperation. Since "[c]ooperation is most effective when it is institutionalized[.]" the obligation to cooperate, the obligations of prior notification and consultation, and procedures for effective and fair dispute resolution are key to decreasing the tension around shared water resources in the Jordan River Basin.

1. Basin-wide Management

The Watercourses Convention explicitly envisions that the creation of international agreements governing the use and allocation of shared water resources is an important path to cooperation. Article 3 discusses the establishment of Watercourse Agreements.¹⁰⁶ McCaffrey points out that Article 3 serves four functions. The first is that the principles articulated in the Watercourses Convention are not meant to abrogate pre-existing agreements between parties.¹⁰⁷ Thus, establishing a Watercourse Agreement under the Watercourses Convention would not, in theory, affect the duties as expressed in the Jordan-Israel Peace Treaty of 1994. Unfortunately, the argument may then be made that a Watercourse

¹⁰³ See Watercourses Convention, *supra* note 101, art. 2.

¹⁰⁴ Int'l Law Comm'n, Rep. on the Work of Its Forty-Sixth Session, 2 Y.B. Int'l L. Comm'n, pt. 2, at 135 (1994) (Resolution on Confined Transboundary Groundwater).

¹⁰⁵ McCaffrey, *supra* note 12, at 500.

¹⁰⁶ See Watercourses Convention, *supra* note 103, art. 3.

¹⁰⁷ McCaffrey, *supra* note 12, at 360.

Agreement would not affect the allocation of water between the Palestinians and Israeli's discussed above, where the Palestinians' water allocations fall below international standards for health and economic development. This argument falls short of other international requirements, however, such as the Fourth Geneva Convention's obligations imposed upon a "belligerent occupier" not to use the natural resources of an occupied territory for the benefit of the occupier's own civilians.¹⁰⁸

The second purpose is equally important, as it leaves room for adjustment of the principles to meet the particular needs and realities of particular watercourses.¹⁰⁹ Thus, the Watercourses Convention is properly understood as a "framework" and "does not purport to contain provisions rising to the level of *jus cogens*."¹¹⁰ Understanding the Watercourses Convention as such a framework that allows for variation given the needs of the region may further encourage its use in developing a Basin Authority precisely because it does not have to be understood as another foreign set of principles being foisted onto the existing legal framework; it is rather meant to adapt to and institutionalize that existing legal framework. The third purpose essentially insulates third parties who may not enter into a Watercourse Agreement by protecting non-party rights and obligations from interference by a Watercourse Agreement to which they are not a part.¹¹¹ The final purpose is to ensure that the parties who enter into such an agreement do so "with a view to negotiating in good faith[.]"¹¹²

However, such an agreement may be rendered essentially toothless were the Watercourses Convention not to call for the formation of joint commissions. In its second paragraph, Article 8 explicitly recommends the "establishment of joint mechanisms or commissions . . . to facilitate

¹⁰⁸ See Elver 2005, *supra* note 100, at 432 ("Palestinians emphasize that Israel's extraction of water inside the West Bank since 1967 is a direct violation of the Geneva Convention. . . . According to the Geneva Convention a belligerent occupier may use the natural resources of the occupied land to support its military forces engaged in the occupation. However, it may not use those resources to support its own civilians even if located within the occupied territory. The implementation of Geneva Convention makes the entire Israeli settlements and their use of water illegal.").

¹⁰⁹ McCaffrey, *supra* note 12, at 361.

¹¹⁰ *Id.*

¹¹¹ *Id.*; Watercourses Convention, *supra* note 101, art. 3 ¶ 4 ("Such [a watercourse agreement] may be entered into. . . except insofar as the agreement adversely affects. . . the use by one or more other watercourse States of the waters of the watercourse, without their express consent").

¹¹² McCaffrey, *supra* note 12, at 362; Watercourses Convention, *supra* note 102, art. 3 ¶ 5.

cooperation.”¹¹³ Furthermore, Article 3 allows the composition of the commission to look however the parties to the agreement think it ought to, given their particular circumstances.

2. *Substantive Obligations*

The Watercourses Convention advances two primary substantive obligations upon co-riparians to an international watercourse: equitable utilization¹¹⁴ and the prevention of significant harm.¹¹⁵ Absent the equitable utilization principle, upstream and downstream states diverge as to how they characterize their claims to shared water. Typically, the “uppermost riparian state initially [will] base their claims on ‘absolute territorial sovereignty,’ . . . [while] downstream states, on the other hand, generally begin with a claim to the ‘absolute integrity of the river[.]’”¹¹⁶ Equitable utilization, however, takes a more holistic approach to the water within a given basin “allows all parties having shared water resources to make use of the resources as limited by the other state’s legitimate rights.”¹¹⁷ Applying the “sovereignty” concept often advanced by upstream states, equitable utilization recognizes that downstream states are no less-sovereign, and simply requires the upstream sovereign to “respect the rights of other states in an international watercourse.”¹¹⁸

Described as the other side of the same coin as equitable utilization, the obligation not to cause significant harm “works in tandem with the principle of equitable utilization[.]”¹¹⁹ At least one scholar has advanced that the “no harm” rule is subordinate to that of equitable utilization based on the argument that “no compensation is due if the harmful use is equitable and reasonable.”¹²⁰ Recognizing that the harm caused may also be unreasonable shows how the two principles work in concert, and do not necessarily subordinate one to the other. Importantly, the harm considered in the Watercourses Convention is not just factual harm, but legal harm as well.¹²¹ Thus, downstream users may harm an upstream user’s legal right

¹¹³ Watercourses Convention, *supra* note 101, art. 8 ¶ 2.

¹¹⁴ *Id.* art. 5.

¹¹⁵ *Id.* art. 7.

¹¹⁶ Dellapenna, *supra* note 3, at 228.

¹¹⁷ Laster, *supra* note 7, at 135.

¹¹⁸ McCAFFREY, *supra* note 12, at 398.

¹¹⁹ *Id.* at 436, 445.

¹²⁰ See Dellapenna, *supra* note 3, at 233 (“. . . as other changes in article 7 appear to subordinate the ‘no harm’ rule to the rule of equitable utilization.”).

¹²¹ See McCAFFREY, *supra* note 12, at 410 (“New uses in a downstream state may have no factual impact on an upstream state but may so alter the equitable balance of uses

to equitable utilization of a shared watercourse, just as upstream users may cause factual harm to a downstream user's access to the water resource. It is this interaction between the two obligations that create what has been called the "process" of equitable utilization through required procedural obligations.¹²²

3. Procedural Obligations

This process of understanding what is equitable and reasonable use of a shared watercourse would be nothing but an abstraction, however, were the parties not similarly obliged to communicate. The various procedural obligations articulated in the Watercourses Convention are meant to ensure just this by imposing the obligations to cooperate,¹²³ notify other riparians prior to development of planned measures,¹²⁴ consult with other riparians¹²⁵ and regularly exchange data and information.¹²⁶ The obligation to cooperate is meant to militate against the realization of Mr. Hardin's Tragedy of the Commons whereby natural resources are destroyed by each taking full advantage while passing the costs onto other parties. Ms. Ostrom similarly found in her research that face-to-face interactions mitigate negative outcomes of resource management.¹²⁷

The obligation to cooperate carries with it, perhaps obviously, the obligation to cooperate in the sharing of information. Thus Article 9 provides the flesh to the skeleton that the obligations of prior notification and consultation with other riparians create. In order for a state to comply with its obligations of equitable utilization and prevention of significant harm, it must therefore cooperate in the exchange of data and information through consulting with co-riparians, so that it is aware of how an intended project may affect the balance struck by the two substantive obligations discussed above. Therefore, the procedural obligations as articulated in the Watercourses Convention ensure that "[e]quitable utilization is not an abstract and static state of affairs, but one that must be arrived at through

that they in effect constrain the scope of subsequent new uses the upstream state can make consistently with its obligation of equitable utilization.").

¹²² *Id.* at 401.

¹²³ Watercourses Convention, *supra* note 101, at art. 8.

¹²⁴ *Id.* at part III.

¹²⁵ *Id.* at art. 3 ¶ 5.

¹²⁶ *Id.* at art. 9.

¹²⁷ See generally Elinor Ostrom, *A Behavioral Approach to the Rational Choice Theory of Collective Action*, 92 AM. POL. SCI. REV. 1 (1997).

an ongoing comparison of the situations and uses of the states concerned.”¹²⁸

4. *Dispute Avoidance and Resolution*

The Watercourses Convention rightfully recognizes that, despite States’ fulfillment of their substantive and procedural obligations, disagreements will still arise as to the use of shared water resources. As such, the Watercourses Convention seeks to avoid those disagreements from maturing into disputes and, failing that, to allow for the peaceful settlement of the dispute through either a joint institution or a Fact-Finding Commission. As the context of this paper is the ubiquitous reality and threat of conflict in the Jordan River Basin, it is properly “conflict” which is sought to be avoided. “Conflict” in this context must be separated from “dispute” and “disagreement”, the latter two of which are addressed in the Watercourses Convention. As such, Article 33 of the Watercourses Convention establishes procedures for the “avoidance and resolution of disputes.”¹²⁹

The avoidance of dispute is to be accomplished first through negotiations regarding the difference. These negotiations are to be conducted in good faith, in that neither party will “insist upon its own position without contemplating any modification of it.”¹³⁰ Should these negotiations fail to resolve the difference, the Watercourses Convention considers a dispute to have arisen, which may be resolved in a number of ways.¹³¹ Two of the mechanisms contemplated by Article 33 are apparently non-binding: either submission to a third party or a joint institution they have created under Article 8, or to a Fact-finding Commission, whose “report is to be considered by the parties in good faith.”¹³² The parties may also submit their dispute to binding arbitration, though it seems that the Watercourses Convention prefers the dispute be submitted to non-binding adjudication through the use of a Fact-finding Commission.¹³³ The Watercourses Convention’s bias toward non-binding adjudication of disputes may betray its underlying intent: that peaceful

¹²⁸ McCaffrey, *supra* note 12, at 402.

¹²⁹ *Id.* at 515.

¹³⁰ North Sea Continental Shelf cases (Germ. V. Neth.), Judgment, 1969 ICJ Rep. 327, ¶ 85 (Feb. 20).

¹³¹ McCaffrey, *supra* note 12, at 515.

¹³² *Id.*

¹³³ *Id.* at 516 (“The report of the Fact-finding Commission envisaged in Article 33 is not binding on the states concerned, but may be of assistance to them in resolving their dispute.”).

resolution is best achieved by a non-coerced acceptance of and obedience to the proper outcome. Binding arbitration always leaves open the possibility that one of the parties will simply not comply with an Order, thereby potentially sowing the seeds of conflict.

The dispute avoidance and resolution principles articulated in the Watercourses Convention also point to the principle of equitable and reasonable utilization as a process. The Fact-finding Commission relies on the collection of facts, which requires the parties to participate in the exchange of data and information as called for in Article 9, as well as cooperate with the Commission in compliance with Article 8. Thus we see that the Watercourses Convention creates a symbiotic mechanism, where the various principles are constantly interacting with each other to institutionalize cooperation between states of a shared watercourse.

B. The Nile Basin Cooperative Framework Agreement

1. Introduction to the Nile River Basin Cooperative Framework Agreement

The ancient Egyptians worshipped the Nile River as a god,¹³⁴ and while that tradition has been significantly de-emphasized in the modern era, it still plays a key role in the hydropolitics of the Nile River Basin.¹³⁵ Truth be told, Egypt still seems to hold to the mistaken belief that “their country will have the right forever, *ad vitam aeternam*, to all water carried by the Nile, as at the time of the Pharaohs.”¹³⁶ Egypt sees the Nile not only as an historical and traditional talisman, but also as “an economic lifeline [and] security issue of the highest order.”¹³⁷ As a result of this paradigm, one scholar has pointed out that “the hydro-politics of the Nile is dominated by Egyptian hegemony played out in the spirit of controlling and owning the Nile rather than that of regulation or cooperation.”¹³⁸

¹³⁴ See Kristin Wiebe, *The Nile River, Potential for Conflict and Cooperation in the Face of Water Degradation*, 41 NAT. RESOURCES J. 731, 731 (2001) (“Praise to Thee O Nile, that issueth from the earth and cometh to nourish Egypt.”), quoting Anon., *Adoration of the Nile*, reprinted in, Adolf Erman, *The Ancient Egyptians, A Sourcebook of Their Writings* 164 (Aylward M. Blackman trans., 1966).

¹³⁵ *Id.*

¹³⁶ JEAN KÉRISEL, *THE NILE AND ITS MASTERS: PAST PRESENT, FUTURE* 139 (2001).

¹³⁷ Abadir Ibrahim, *The Nile Basin Cooperative Framework Agreement: The Beginning of the End of Egyptian Hydro-Political Hegemony*, 18 MO. ENVTL. L. & POL’Y REV. 282, 288 (2011).

¹³⁸ *Id.* at 288-89.

This would be all well and good were it not for the fact “Egypt contributes virtually no water”¹³⁹ to the river that constitutes ninety-six percent of Egypt’s water resources.¹⁴⁰ The two main tributaries of the Nile are the Blue Nile and White Nile. The six White Nile upstream riparians have been reluctant to move toward an agreement regarding the waters of the Nile, perhaps because the White Nile contributes such a modest share of the water volume to the Basin. The two Blue Nile upstream riparians, Ethiopia and Eritrea, contribute the substantial volume of water to the Nile Basin, and as a result, are often found at odds with the two downstream states, Egypt, and Sudan.¹⁴¹ Scholars point to the fact that “Egypt is known for its propensity to resort to armed responses to perceived or real hydraulic works on the Nile that would even slightly reduce the amount of waters reaching the Aswan [Dam].”¹⁴²

The move toward cooperation between all the basin states began in the 1980s in a concerted effort to “[move] beyond confrontational paradigms and to foster confidence-building and basin-wide cooperation.”¹⁴³ This resulted in the Nile River Basin Action Plan in 1995, one purpose of which was to establish a “basin-wide framework for legal and institutional arrangements.”¹⁴⁴ Later, in 1999, the basin states passed the Nile Basin Initiative, conceived as an interim agreement until the adoption of what came to be the Nile Basin Cooperative Framework Agreement (“Framework”).¹⁴⁵

Reading the Nile Framework, it is plain that it is modeled after the Watercourses Convention, as it applies all of the Principles discussed in Annex I. There is one glaring departure from the principles in the Watercourses Convention, however, which has proven to be problematic to its ratification: the advanced principle in Article 14b of “Water Security.” The Framework’s Annex on Article 14(b) details the fact that no consensus was reached on this principle, which reads: “[Basin States therefore agree, in a spirit of cooperation:] not to *significantly affect* the

¹³⁹ McCaffrey, *supra* note 12, at 261.

¹⁴⁰ Ibrahim, *supra* note 137, at 287.

¹⁴¹ Takele Soboka Bulto, *Between Ambivalence and Necessity: Occlusions on the Path Toward a Basin-wide Treaty in the Nile Basin*, 20 COLO. J. INT’L ENVTL. L. & POL’Y 291, 318 (2009).

¹⁴² *Id.* at 319.

¹⁴³ Stephen McCaffrey, Jutta Brunnee, et. al, *If Water Respects No Political Boundary, Does Politics Respect Transboundary Waters*, 102 AM. SOC’Y INT’L L. PROC. 353, 361 (2008) [hereinafter Brunnee].

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

water security of any other Nile Basin State[.]”¹⁴⁶ The Annex captures the fact that Egypt and Sudan objected to this section, and proposed in its stead that the Nile Basin states agree, “not to *adversely affect* the water security and current uses and rights of any other Nile Basin State.”¹⁴⁷ While this break in agreement would seem to cast doubt on whether the Nile Framework will be ratified, at least one scholar has made the point that the basin states agree on all other aspects of the Nile Framework except this one and that that is a positive sign of the potential for cooperation.¹⁴⁸

The disagreement seems to revolve around the existence of historic bilateral agreements. In a staggering dismissal of third-party rights to Nile River water, The Agreement for the Full Utilization of the Nile Waters (“1959 Treaty”), signed in 1959, seeks to realize “the full control and utilization of the Nile waters . . . by [Egypt and Sudan].”¹⁴⁹ Though this attempt has been described as “patently anomalous” in that it constitutes an “iniquitous agreement contingent upon zero water use by upstream riparians[.]”¹⁵⁰ both Egypt and Sudan apparently think it relevant to the point of dissolving negotiations regarding the Nile Framework.

2. *Institutional Structure*

The Nile Framework provides an excellent example of how to create the basin-wide organization that the Watercourses Convention envisions. Part III of the Framework details the various bodies in the organization, outlining their structure and procedures, membership and functions. Article 15 establishes the Nile River Basin Commission (“Nile Commission”), which Article 17 describes as being made up of several different Organs. Under Article 16, the purpose and objective of the Nile Commission is threefold:

(a) To promote and facilitate the implementation of the principles, right and obligations provided for in the present Framework.

¹⁴⁶ Agreement on the Nile River Basin Cooperative Framework, Eth.-Burundi., May 14, 2010–Feb. 28, 2011, art.14(b) (emphasis added) [hereinafter Nile Framework].

¹⁴⁷ *Id.* (emphasis added).

¹⁴⁸ Ibrahim, *supra* note 137, at 302.

¹⁴⁹ Dereje Mekonnen, *The Nile Basin Cooperative Framework Agreement Negotiations and the Adoption of a “Water Security” Paradigm: Flight into Obscurity or a Logical Cul-de-sac?*, 21 EUR. J. INT’L L. 421, 435 (2010).

¹⁵⁰ *See id.* (“The anomaly lies in the fact that ‘while it is purely bilateral, it seeks to apportion the entire flow of the Nile to Egypt and Sudan, excluding the interest of any other riparian, notably Ethiopia.’”).

(b) To serve as an institutional framework for cooperation among Nile Basin States in the use, development, protection, conservation and management of the Nile River Basin and its water.

(c) To facilitate closer cooperation among the States and peoples of the Nile River Basin in the social, economic and cultural fields.

Thus, the Nile Commission provides for the institutionalization that allows for effective cooperation between basin states by creating a body with legal status whose core function is cooperation between the various states.

The Nile Commission is comprised of five different Organs, each of which has a particular makeup of members and correlating responsibilities. Section B of Part III establishes that the Conference of Heads of State and Government are to be so comprised,¹⁵¹ that it “shall establish its own rules and procedures,”¹⁵² and that the function it provides the Nile Commission as a whole is that of “supreme policy-making.”¹⁵³ By establishing an Organ that is comprised of Heads of State of the various Basin states and by vesting that Organ with policy-making authority for the Nile Commission, it is simultaneously taking advantage of the political acumen of its members and insulating them from other matters, such as dispute settlement.

Section C establishes a Council of Ministers, which “shall convene once a year in regular session and in special session at the request of any Nile Basin State.”¹⁵⁴ This Council is composed of each Basin States’ Minister of Water Affairs.¹⁵⁵ This requirement apparently carries the corollary requirement that each Basin State therefore have such a Minister and corresponding Ministry, the importance of which would be difficult to overstate. The Article seems to create a hierarchical regime, whereby various organizations at the national and regional level are nested within each other; of course that regime would be nothing more than a regional abstraction were there not organizations at the national level who cooperated by providing information and data, in compliance with the General Principles in Article 3 as well as Articles 4, 5, and 7.¹⁵⁶ As distinct from the Conference of Heads of State and Government, the Council of

¹⁵¹ Nile Framework, *supra* note 146, at art. 20.

¹⁵² *Id.*

¹⁵³ *Id.* at art. 21.

¹⁵⁴ *Id.* at art. 23 ¶ 2.

¹⁵⁵ *Id.* at art. 22.

¹⁵⁶ *See id.* at art. 3-5,7.

Ministers is vested as the “governing body of the Commission,”¹⁵⁷ presumably operating within the policies established by the Conference of Heads of State.

The Technical and Sectoral Advisory Committees are respectively established in Sections D and E, and Section F creates a Secretariat. Focusing on the Technical Advisory Committee (“TAC”), the Nile Framework seems to manifest the separation of policy decisions and technical review and recommendations as contemplated in the Watercourses Convention. Each Basin State is to supply two members, each of whom shall be senior officials from their respective Basin State, but may also “bring other experts to meetings of the TAC as necessary to deal with special questions.”¹⁵⁸ The TAC reports to the Council of Ministers, as the rules and procedures it develops are subject to that Organ’s approval.¹⁵⁹ The TAC is the body vested with making the determinations envisioned by the Watercourses Convention regarding the use of shared waters. Article 26, paragraph 5 requires the TAC to “make recommendations to the Council [of Ministers] on decisions regarding the determination of equitable and reasonable use of water[.]”¹⁶⁰ The fact that such determinations are not made by a political body, but an Organ made of technicians who may be supplemented by outside experts, is surely an attempt to ensure that decisions regarding the equitable and reasonable utilization of shared water resources in the Nile Basin are as insulated as possible from hydropolitics, and based primarily on the factors listed in Article 4.

3. *Dispute Settlement*

The Framework contemplates the existence of disputes as to the recommendations of the TAC or possibly to the policies set by the Conference of Heads of State and Government, as a dispute arises “concerning the interpretation or application of the present Framework[.]”¹⁶¹ The Basin States are charged to resolve their disputes by “peaceful means”¹⁶² through a number of procedures. The Basin States are obligated to attempt negotiation; should that fail, they have a number of subsequent mechanisms available. They may seek settlement of the dispute by the Basin Commission or other third party, or agree to

¹⁵⁷ *Id.* at art. 24, ¶ 1.

¹⁵⁸ *Id.* at art. 25 ¶ 1.

¹⁵⁹ *Id.* at art. 25 ¶ 4.

¹⁶⁰ *Id.* at art. 26 ¶ 5.

¹⁶¹ *Id.* at art. 33 ¶ 1.

¹⁶² *Id.*

arbitration either “in accordance with procedures to be adopted by the Council [of Ministers], or to the International Court of Justice.”¹⁶³ Thus the Nile Framework contemplates requiring disputing Basin States to pass through a series of mechanisms which lay within and without the Commission.

However, if none of the mechanisms contemplated above result in settlement of the dispute, the Framework leaves open an alternative also contemplated in the Watercourses Convention: the Fact-finding Commission, established in the Nile Framework’s Annex. Each concerned State is to nominate one member to the Fact-finding Commission, and these members are to choose a Chairman “not having the nationality of any of the States concerned[.]”¹⁶⁴ Should the members be unable to agree on a Chairman, any of the concerned States may “request the Chairperson of the Commission of the African Union (AU) to appoint the Chairman[.]”¹⁶⁵ Thus the Nile Framework almost forces the parties to cooperate with each other, or potentially face appointment of a Chairman whom none of the concerned parties would prefer. This theme of cooperation runs into the final paragraph of the Annex, which requires the concerned States to “provide the [Fact-finding] Commission with such information as it may require” to make its report of recommendations to the States concerned.¹⁶⁶ The obligation to provide information is commensurate with the general principle of cooperation and the obligation to the regular exchange of information that the Framework and the Watercourses Convention articulate.

The Nile Basin Cooperative Framework Agreement is not a perfect agreement. The inclusion of the nebulous principle of “water security” has perhaps prevented ratification. Despite its appeal to provide “constructive ambiguity” to the process, one scholar has pointed out rightly that the “non-legal and indeterminate concept of ‘water security’ is found nowhere in international legal instruments dealing with international watercourses[.]”¹⁶⁷ However, the Basin States appear to have “agreed on every aspect of the treaty except . . . whether the new treaty would nullify [the pre-existing 1959 Treaty between Egypt and Sudan.]”¹⁶⁸ As such, it appears to present to the Jordan River Basin States a robust example of how the principles and guidelines articulated in the Watercourses

¹⁶³ *Id.* at art. 33 ¶ 1(a).

¹⁶⁴ *Id.* at annex ¶ 1.

¹⁶⁵ *Id.* at annex ¶ 2.

¹⁶⁶ *Id.* at annex ¶¶ 4, 5.

¹⁶⁷ Mekonnen, *supra* note 149, at 438.

¹⁶⁸ Ibrahim, *supra* note 137, at 302.

Convention can be institutionalized to facilitate cooperation between them.

V. RECOMMENDATION: THE JORDAN RIVER BASIN COMMISSION

The primary aim of this paper is to recommend the establishment of the Jordan River Basin Commission, under the Jordan River Basin Cooperative Agreement, representing all five of the co-riparians to the Jordan River, in order to institutionalize cooperation between them over their shared water resources. Recognizing that “many disputes over international watercourses are avoided because of the existence of joint commissions or other institutional mechanisms[.]”¹⁶⁹ this paper recommends just such a mechanism. Given the history of conflict and distrust between the various states involved, creating a formal institution where disagreements and disputes regarding water resources can be resolved peacefully is especially important. While this paper does not advance the proposition that water resources are the “*casus belli*” of the region’s conflicts, it similarly insists that the region’s scarcity of water and lack of a recognized agreement regarding water are certainly not helping the situation. The intent, then, is humble enough: simply reach into the morass of conflict and pluck water out as a potential variable in the conflict calculus.

Given the many similarities between the Nile River Basin and the Jordan River Basin, the former serves as a particularly salient model for the latter to adopt for a number of reasons. Israel’s hegemony, including its disproportionate use of water, in the Middle East is analogous to Egypt’s in the Nile Basin. Both regions are marked by a stark history of conflict only further exacerbated by separate legal and historical traditions. Both regions have a history of colonial rule, the legal frameworks and penumbras of which play a significant role in modern regimes. And both must deal with the reality of certain bilateral treaties between parties that do not account for the basin as a whole.

However, and most importantly, despite their differences, riparian states in both regions are coming to the realization that cooperation regarding shared water resources will produce a more sustainable—and peaceful—management policy. With this end in mind, the Jordan River Basin riparians should look to examples abroad, including the Nile Basin Cooperative Framework Agreement, to discover how they too can

¹⁶⁹ McCaffrey, *supra* note 12, at 400.

overcome the inertia of conflict by replacing it with a paradigm of cooperation. A Jordan River Basin Commission should be established under a Jordan River Basin Cooperative Agreement (“Cooperative Agreement”). The Cooperative Agreement can and should look much like the Nile Framework, albeit taking advantage of some key lessons learned from the thus-far failed negotiations, and adapting the Nile Framework and the Principles of the Watercourses Convention to the particular hydrological, geographic, and political realities of the Jordan River Basin.

A. Independent and Impartial Review

Given the history of conflict and distrust between the Jordan River’s riparians, developing a Commission whose findings and recommendations—as well as its legitimacy—are recognized as legally binding may perhaps be the most difficult aspect of the negotiations. The continued reference to aspects of the Johnston Plan, however, shows that an independent body may be given the deference and respect needed to govern the shared water resources of the Basin. Admittedly, the Johnston Plan failed ratification precisely because it essentially gave each party (the Cotton Plan and the Arab Plan) concessions that the other simply could not accept. Yet, the fact that it was negotiated and recommended by an organization that not only was in fact, but also understood as, being presumably impartial has significance.

An independent organization, such as the UN or perhaps even another basin commission, should therefore be involved at various stages in the process. Obviously the Basin States must be significantly involved so that their various points of view may be expressed and captured in the resulting Cooperative Agreement, but the existence of an impartial third party during the negotiations may expose over-stated or unwarranted claims to water and help the parties reach a compromise. The process of these negotiations will itself be critical: for it will be in the very process of arriving at the Cooperative Agreement that the Basin States will already be exercising the principles of cooperation and exchange of information that the Cooperative Agreement articulates.

This impartiality must also be incorporated into the institutional structure of the Jordan River Basin Commission itself and its various Organs. For example, unlike the Nile Framework’s Technical Advisory Committee’s composition of two members from each Basin State, the Jordan Basin Commission’s Technical Advisory Committee would perhaps benefit from the addition of a five-member independent group, each member of whom could not be a citizen or resident of any of the five Jordan River riparian States. The presence of such a robust and

independent group, with one independent member for each of the five riparians, would lend not only an objective analysis to its recommendations to the Jordan Basin Council of Ministers, but perhaps more importantly to the *perception* of impartiality.

The presence of third party and independent involvement must be limited however; the purpose of the Cooperative Framework is, after all, *cooperation*, not coerced compliance from without. The Jordan Basin Commission's Council of Ministers, therefore, ought to reflect the same composition as reflected in the Nile Framework, with the Minister of Water (or relevant counterpart) of each country representing his or her respective government. This is particularly important regarding Palestine's independent management of its water resources, and should reinforce the authority of the Palestine Water Authority established under the Declaration of Principles to do more than merely make "suggestions" and may offer the "jump-start" some scholars have suggested it needs.¹⁷⁰ Such a composition of the Jordan Basin Council of Ministers will also allow the opportunity for that body to choose whether to comply with the independent recommendations of the Jordan Basin TAC. This choice is crucial: without that freedom to choose whether to cooperate, the Cooperative Agreement may undermine the very purpose it advances: cooperation, not coercion.

B. Cooperation as a Semi-Democratic and Semi-Transparent Process

The history of how existing agreements in the Jordan Basin were negotiated provides an important lesson in the governance of the Jordan Basin Commission. Three important examples demonstrate that the typical bias toward a democratic approach to agreement in the Jordan Basin may not be appropriate in either the Cooperative Framework negotiations or in the governance of Jordan Basin Commission. Jordan and Israel conducted their negotiations in secret to arrive at their 1994 Treaty.¹⁷¹ Similarly, the PLO and Israel also conducted their activities insulated from public opinion in order to arrive at the Declaration of Principles during the Oslo I Accords.¹⁷² Thirdly, the news in 2008 that Israel and Syria were engaged

¹⁷⁰ See Silverbrand, *supra* note 14, at 236 ("[The Palestine Water Authority] has not reached the same level of sophistication as Israeli water law, and Palestinian Water Laws may need jump-starting to offer a parallel framework.").

¹⁷¹ See *id.* at 233-34.

¹⁷² See *id.* at 232.

in secret negotiations was a surprise to many who thought the two intractable enemies.¹⁷³

While democratic values—especially in the Jordan River Basin—cannot be ignored, democratic institutions are not a shibboleth to guarantee durable and responsible administration of natural resources. The true issue is not whether there should be public participation, but how much public participation should be invited. While it may be clear that the Jordan Basin Commission should be “composed of representatives of the public,” the most effective way to insulate the decision-making from the ubiquity of factional politics in the region may be to allow for indirect representation and “not to elect officials directly to a governing body[.]”¹⁷⁴ This may best be accomplished by having an elected official appoint the Minister of Water (or counterpart) or member of the Jordan Basin TAC. This would ensure some accountability of what is a public resource, but limit the direct reach of public opinion to affect regional water management.

C. Required Concessions and Obligations

Several parties, in order to arrive at the Cooperative Agreement, will have to concede some issues. Foremost, Israel’s continued occupancy of the West Bank must cease; an independent and sovereign Palestine must be recognized and supported by the international community as a whole. This will have an immediate effect on the ability of Palestine to engage at the regional level regarding equitable and reasonable utilization of shared water resources, notably to improve the situation of its residents. Apart from the volumetric disparity noted above, studies have suggested that the poor quality of drinking water in Palestine is an “underlying cause for the high incidence of diarrhea in Palestinian children[.]”¹⁷⁵ and that, in one Palestinian community, sixty-one percent of the children there were infected with intestinal parasites.¹⁷⁶ This deplorable and shameful reality robs Israel of any high ground it may once have had in the international community, and must be addressed immediately without continued equivocation or obfuscation. Nineteen Sixty-Seven was a long time ago.

¹⁷³ Bobby Ghosh, *Israel and Syria’s Secret Talks*, TIME, May 21, 2008.

¹⁷⁴ Laster, *supra* note 7, at 144.

¹⁷⁵ See Andrew R. Malone, *Water Now: The Impact of Israel’s Security Fence on Palestinian Water Rights and Agriculture in the West Bank*, 36 CASE W. RES. J. INT’L L. 639, 658-59 (2004) (asserting that the reduction in the amount and quality of water from water tankers has resulted in an increase in the “incidents of diarrhea in children under the age of five” by 17.1%).

¹⁷⁶ Anna Bellosari, *Public Health and the Water Crisis in the Occupied Palestinian Territories*, 23 J. PALESTINIAN STUD. 52, 59 (1994).

Furthermore, the Jordan River Basin States cannot continue to threaten or carry out military action on public water works, nor can any other state, for that matter. Not only do such actions, if taken, amount to a violation of Protocol I of the Geneva Convention,¹⁷⁷ but also they certainly do not facilitate an air of cooperation.

The provisions of existing bilateral treaties should be abandoned where the Cooperative Agreement supersedes them. The Nile Framework's history with the insistence of Egypt, as the regional hegemon, to continued recognition of existing treaties that run afoul of the international law of equitable and reasonable utilization demonstrates that existing agreements may need to give way to a broader framework that incorporates all interested parties. Specifically, the diversion of Jordan River water out of the Basin to the Negev Desert may have to cease if it is shown to cause harm to another riparian's right to use Jordan River water inside the Basin. This will serve an important function in forcing states to develop robust water resource planning institutions that are able to effectively plan water allocations, so that they can present that information to the Jordan Basin TAC or Fact-finding Commission.

Finally, but surely most importantly, the people in the Jordan River Basin must stop killing each other. War perpetuates destruction, breeds dissent, and creates an unsustainable environment for people to improve their condition and the health of their communities. War destroys the very systems that allow a people to thrive; indeed that is its sole purpose.

VI. CONCLUSION

The ubiquity of conflict in the Middle East does not have to be a given. By understanding the sources of conflict, and recognizing areas for cooperation between the five riparians of the Jordan River, the application of international law can provide a framework to extract water from the conflict calculus. Existing legal frameworks show a propensity for basin states to recognize their shared rights and obligations regarding the region's scarce water resources. The UN Watercourses Convention provides a framework to create a broader application of international law, and articulates important dispute resolution mechanisms. The Nile Basin

¹⁷⁷ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I) art. 56 ¶¶ 1,4, June 8, 1977 (“Works or installations containing dangerous forces, namely dams, dykes... shall not be made the object of attack” or “the object of reprisals.”) <https://ihl.databases.icrc.org/applic/ihl/ihl.nsf/Article.xsp?action=openDocument&documentId=3376730ECD9DF7B1C12563CD0051DD37>.

Cooperative Framework Agreement, though not ratified, provides the actors in the Jordan River Basin with a salient example for how to construct their own Cooperative Agreement based on the principles of international law articulated in the Watercourses Convention.

Importantly, the Nile Framework establishes the Nile Basin Commission with its various Organs, and provides precedent for how to institutionalize cooperation between states that share a history of conflict. The Nile Framework should be employed to create the Jordan River Basin Cooperative Agreement, which should establish the Jordan River Basin Commission. The Jordan Basin Commission ought to mirror the Nile Framework version in most ways, but also reflect the particular challenges unique to the Jordan River Basin in its institutional structure. Though far from impossible, such an agreement will require certain concessions and a break from the destructive patterns of the past.

Professor McCaffrey wisely observed that equitable utilization is best seen as a process that must remain adaptive through active and institutionalized cooperation.¹⁷⁸ Peace is also best understood as a process rather than a fixed point of arrival. The growing ubiquity of institutionalized armed conflict, in the Middle East and elsewhere, is just one consequence of our dereliction to build and maintain the institutional mechanisms a durable peace requires. Like a river, the institutions we create to facilitate peace must flow patiently and unapologetically forward, allowing us to bend when the reality of the rock is unrelenting, but also ensuring we understand when and how to carve through what ultimately amount to superficial strata of how things used to be.

¹⁷⁸ See MCCAFFREY, *supra* note 12, at 402 (“Equitable utilization is not an abstract and static state of affairs, but one that must be arrived at through an ongoing comparison of the situations and uses of the states concerned.”).