

# COMMENTS

## DO BROTHERS DIVIDE SHARES FOREVER: OBSTACLES TO THE EFFECTIVE USE OF INTERNATIONAL LAW IN EUPHRATES RIVER BASIN WATER ISSUES

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### 1. INTRODUCTION

For several millennia, the Euphrates and Tigris Rivers have seamlessly provided water for one of the most ancient sites of civilization.<sup>1</sup> In early times, Mesopotamian civilization—literally “the land between the rivers”—relied upon these waters for survival.<sup>2</sup> Years later, many other civilizations began utilizing these waters including, most recently, Iraq, which for centuries has been the dominant user of the waters from the Euphrates.<sup>3</sup> History provides little evidence of conflicts arising out of the use of the two rivers; there had always been enough water for all. Today, however, the situation has changed drastically.

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\* Spoken by the sage Ut-napish-tim in the Mesopotamian epic of Gilgamesh. Gilgamesh was the mythological king of Erech in southern Mesopotamia (present day Iraq).

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<sup>1</sup> See DANIEL HILLEL, RIVERS OF EDEN: THE STRUGGLE FOR WATER AND THE QUEST FOR PEACE IN THE MIDDLE EAST 92 (1994).

<sup>2</sup> See *id.*

<sup>3</sup> See ASSOCIATES FOR MIDDLE EAST RESEARCH (“AMER”), WATER ISSUES IN THE MIDDLE EAST: TURKEY: POLITICAL, ECONOMIC AND STRATEGIC (1988) [hereinafter AMER: TURKEY].

Presently, three nations, Turkey, Iraq, and Syria, share the water of the Euphrates River.<sup>4</sup> Historically, Turkey and Syria have all but ignored the economic opportunities provided by the Euphrates, leaving its waters almost exclusively to Iraq. In the latter half of the twentieth century, however, both nations, particularly Turkey, have begun to appreciate the value of the Euphrates and turned their attention and energies toward harnessing the immense irrigation and hydroelectric potential of the river.<sup>5</sup> Of greatest significance is Turkey's Southeast Anatolia Development Project (Güneydoğu Anadolu Projesi in Turkish ("GAP")): a massive undertaking designed to develop the southeast regions of Turkey through hydroelectric and irrigation projects along the Euphrates River.

Since Turkey is the uppermost of the three Euphrates riparians, its project to control water flow of the river bears potentially critical ramifications for Syria and Iraq, both of which lie downstream. The centerpiece of the GAP, the Atatürk Dam, is a massive dual hydroelectric/irrigation dam—the ninth largest dam in the world—that has virtually strangled the flow of the Euphrates, causing great tension in the region.<sup>6</sup> The Middle East is already a water scarce region, and Turkey's restriction of the Euphrates flow threatens to bring severe water shortages to both Syria and Iraq.<sup>7</sup>

The adverse effects that the GAP project will have on Syria and Iraq cannot be overstated. Overall, the completed the GAP project will diminish Euphrates River flows by as much as 50%.<sup>8</sup>

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<sup>4</sup> See NURIT KLIOT, *WATER RESOURCES AND CONFLICT IN THE MIDDLE EAST* 100 (1994).

<sup>5</sup> See AMER: TURKEY, *supra* note 3, at 53.

<sup>6</sup> See Frederick W. Frey, *Power, Conflict, and Cooperation*, RES. & EXPLORATION, Nov. 1993, at 18, 29; see also HILLEL, *supra* note 1, at 106; KLIOT, *supra* note 4, at 125-27.

<sup>7</sup> See Priit J. Vesilind, *The Middle East's Water: Critical Resource*, NAT. GEOGRAPHIC, May 1993, at 38, 50.

<sup>8</sup> Completion of the GAP was originally scheduled for the end of 2001, but various factors have kept this ambition from becoming reality. One of these factors has been the presence, discussed in greater detail below, of a large Kurdish minority population in the regions to be covered by the GAP. The Kurds have long presented a social and political problem for the Turkish government, and the region has, for this reason, often been characterized by political instability. One of the various *raison d'être* for the GAP has been to address this problem with the Kurds. Without question, the GAP will bring tremendous financial prosperity to the region, which the Turkish government hopes will stabilize the region and pacify the Kurds. In a somewhat more insidious mode,

Since the Euphrates River makes up nearly 80% of Syria's total surface water supply, the ramifications of such a reduction are tremendous.<sup>9</sup> In 1990, Syria's total water supply amounted to approximately 30.6 billion m<sup>3</sup> per year. Of this amount, approximately 28.5 billion m<sup>3</sup>, or 93%, came from the Euphrates River.<sup>10</sup> At the same time, Syria's water demand for all uses amounted to approximately 4.8 billion m<sup>3</sup> per year, thus leaving a total water surplus of 25.8 billion m<sup>3</sup> per year.<sup>11</sup> Syria's water surplus, in turn, left Iraq with plenty of water to meet its traditionally heavy demand for Euphrates River water. With the advent of the GAP, and particularly after the filling of the reservoir behind the Atatürk Dam, this situation has changed dramatically. Estimates of Euphrates River flow after completion of the GAP<sup>12</sup> are dis-

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Turkey also plans to attract a large number of "ethnic Turks" to the area, thus diluting the Kurdish dominance in the region. This latter hoped-for effect has caused significant resentment among the Kurds, to the point where the region has been in more or less of a constant state of revolt. This has slowed completion of the GAP project significantly. See HILLEL, *supra* note 1, at 104. Another factor that has slowed the progress of the GAP has been the need to acquire financing. The World Bank and the International Monetary Fund ("IMF") have at various points refused to fund the GAP project, or certain aspects (most notably the Atatürk Dam), unless and until agreement was reached between the riparians as to water sharing. Thus, Turkey often has been left to find alternative methods to finance the project, including a tremendous amount of internal financing. See *id.* at 105; KLIOT, *supra* note 4, at 125-26; Joseph W. Dellapenna, *The Two Rivers and the Lands Between: Mesopotamia and the International Law of Transboundary Waters*, 10 *BYU J. PUB. L.* 213, 230-31 (1996). This task itself has been severely complicated by the Gulf War of 1990, after which Turkey has complied with United Nations ("U.N.") sanctions against Iraq, which had been until that point, Turkey's largest trading partner. See *id.* at 231. Current estimates project final completion of the GAP somewhere between 2010 and 2040. However, this should not dilute the reader's impression of the severity or immediateness of the water crisis in the region. As previously mentioned, the centerpiece of the GAP, and its largest, most significant structure, the Atatürk Dam, was completed in 1990. The dam and other completed GAP projects have already caused serious consequences to Euphrates and Tigris flows, which will be more thoroughly discussed below.

<sup>9</sup> See KLIOT, *supra* note 4, at 138.

<sup>10</sup> See *id.* at 137-41.

<sup>11</sup> See *id.*

<sup>12</sup> The issue of measuring water-flow from the Euphrates, Tigris, and their various tributaries has been another obstacle to finding a mutually agreeable water-sharing system. Various experts have conducted studies over the years and have come to different conclusions regarding the level of water flow. See ARNON SOFFER, *RIVERS OF FIRE: THE CONFLICT OVER WATER IN THE MIDDLE EAST* 74 tbl. 3.1 (Murray Rosovesky & Nina Copaken trans., 1999). Part of the reason for this discrepancy stems from the experts' use of different

treasingly low. Post-completion Euphrates flow to Syria is estimated at approximately 12.6 billion m<sup>3</sup> per year, of which 4.6 billion m<sup>3</sup> per year will be return flow from Turkey.<sup>13</sup> Adding the rest of Syria's water sources creates a total water supply of approximately 14.8 billion m<sup>3</sup>.<sup>14</sup> At the same time, due in part to Syria's population growth and its own projects aimed at increasing irrigation and hydroelectric power production, Syria's demand for Euphrates water will increase to approximately 13.4 billion m<sup>3</sup> per year, leaving a total water surplus of only 1.4 billion m<sup>3</sup> per year.<sup>15</sup> Given the history of frequent drought in the region, this is a precariously low figure. More importantly, this means that Syria will be able to release no more than 1.4 billion m<sup>3</sup> per year into Iraq. It shall become clear that his figure is entirely inadequate.

Even if the water flow is drastically reduced, experts expect Syria to continue to record a surplus, and, thus, afford it enough water to meet its projected agricultural needs. However, Syria's surplus would not leave Iraq with enough water to meet its own needs, which means that Syria possibly would have to allow more water to flow into Iraq than it would prefer, and perhaps would have to reduce its surplus to a shortfall. This will have the direct effect of forcing Syria to abandon previously irrigated farmland. In any event, drought conditions are frequent in the region, and Syria has an arid climate.<sup>16</sup> With such a low water surplus in non-

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methods or different measuring points along the rivers. Naturally, politics has also had an effect on perspective.

<sup>13</sup> See *id.*

<sup>14</sup> "Return flow" is a term used to describe water that has been taken out of a river system for irrigation purposes and then returned to the system via runoff or otherwise. Return flow water is almost always of substantially lower quality than regular flow as the water picks up various soil deposits, pesticides, and other chemicals during its use as irrigation water. This adds a layer of complexity to the problems facing the sharing of the Euphrates and Tigris Rivers, and will be discussed in fuller detail below. The United States, for instance, has had a long standing agreement with Mexico regarding the quantity of water to be released by the United States into Mexico from the Colorado River. This agreement originally did not cover quality, however, and a large portion of the water that the United States sent to Mexico was return flow, to the detriment of Mexican agriculture. See Frey, *supra* note 6, at 26-27.

<sup>15</sup> See KLIOT, *supra* note 4, at 141 tbl. 2.11.

<sup>16</sup> See HILLEL, *supra* note 1, at 97; KLIOT, *supra* note 4, at 104-08. Further evidence of the fragility of such a low water surplus figure in Syria is demonstrated by the fluctuations in flow of the Euphrates River year to year. While the normal natural flow for the Euphrates at the border between Turkey and

drought years, a drought year after the GAP's completion could be devastating to Syria's agriculture, economy, and even its ability to provide drinking water to its growing population.<sup>17</sup> Even without the possibility of a water shortfall caused by Iraqi demand or by drought, the reduced water supply already contemplated will affect Syrian hydroelectric production. Presently, 25% of all Syrian electricity is generated by hydroelectric power stations located along the Euphrates. The anticipated reduction in Euphrates flow due to the GAP will reduce this production.<sup>18</sup>

For Iraq, the situation is not much better. Iraq is not as dependent on the Euphrates River as Syria is because it receives a large amount of water from the Tigris River, but, since it is the lower-most riparian in the system, it is more vulnerable to upper riparian use of both rivers.<sup>19</sup> Thus, Iraq gets only that portion of water from the Euphrates and Tigris rivers that Turkey and Syria release. Furthermore, much of the water that Iraq will receive in the post-GAP era will be return flow from the GAP projects as well as Syria's own irrigation projects.<sup>20</sup>

In total, Turkish and Syrian projects on the Euphrates could reduce the flow of the Euphrates into Iraq by as much as 80%, and, while figures for the Tigris are not as clear,<sup>21</sup> there will cer-

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Syria is around 30 billion m<sup>3</sup> per year, it has been measured as low as 16.8 billion m<sup>3</sup> per year. See HILLEL, *supra* note 1, at 95, 102. Given Syria's expected post-GAP water demand of 13.4 billion m<sup>3</sup> per year, it is obviously unlikely that after removing Turkey's massive water consumption figures that Syria would be able to approach its needs even in a moderate drought year. Of course, if Syria is unable to meet its water needs, Iraq likewise would be unable to do so.

<sup>17</sup> While most nations of the world have recently come to understand the dangers of unfettered population growth, Syria intentionally fosters a high level of growth, believing that a large population will lead to greater national strength and bring heightened legitimacy to its claim as leader of the Arab world. See HILLEL, *supra* note 1, at 107.

<sup>18</sup> See KLIOT, *supra* note 4, at 142.

<sup>19</sup> See HILLEL, *supra* note 1, at 97; KLIOT, *supra* note 4, at 101. Iraq's climate is also more arid than either that of Syria or Turkey, so Iraq relies on the combined waters of the twin rivers as a whole more than either of its upstream co-riparians.

<sup>20</sup> Syria's projects are primarily located on the Euphrates and its tributaries. While the Tigris does pass through Syria, it does so only for a stretch of some 35 miles along one of its borders.

<sup>21</sup> The GAP project does include substantial use of the Tigris River, including four large dams which the Turks hope will serve to irrigate 1,482,000 acres of land. See JOHN F. KOLARS & WILLIAM A. MITCHELL, *THE EUPHRATES RIVER AND THE SOUTHEAST ANATOLIA DEVELOPMENT PROJECT* 43 (1991).

tainly be some reduction of its flow due to the GAP. The flow from the Euphrates and Tigris and their tributaries accounts for 98% of Iraq's surface water.<sup>22</sup> In 1990, Iraq received an annual average of 28.4 billion m<sup>3</sup> of water from the Euphrates River, which, along with its substantial Tigris River flow of approximately 50 billion m<sup>3</sup>, easily met Iraq's total water demand of 48.5 billion cubic meters.<sup>23</sup> However, it is estimated that after completion of the GAP, river flow will be reduced to 10.6 and 40 billion m<sup>3</sup>, respectively, while Iraq's water demand is increased to 61.7 billion m<sup>3</sup>. This reduced flow and increased demand thus leaves Iraq with a total water deficit of 10.6 billion m<sup>3</sup>.<sup>24</sup> This water short-fall ultimately will affect 5.5 million farmers and force Iraq to abandon as much as 1.8 million acres of farmland.<sup>25</sup> Since Iraq already imports 80% of its food,<sup>26</sup> it cannot afford such reductions in domestic agricultural production.

In a region known for its instability, the possibility of armed conflict over these issues is very real. In fact, Iraq and Syria have come extremely close to armed conflict more than once in the recent past. In 1975, as Syria filled the recently constructed Tabqa dam, Iraq's Euphrates flow was reduced by approximately 67%, resulting in massive crop failures.<sup>27</sup> Syria denied responsibility for Iraq's water shortage<sup>28</sup> and insisted that Iraq use the Tigris River to compensate for the reduced water flow from the Euphrates. Both countries deployed troops to their border, and armed conflict was averted only because of last minute mediation by the So-

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However, Turkey has thus far concentrated its efforts on the Euphrates and plans to begin its work on the Tigris River upon completion of the Euphrates projects. As mentioned earlier, Syria contains very little Tigris River flow, and is loathe to engage in any projects thereon for fear of further exacerbating its relations with Iraq.

<sup>22</sup> See KLIOT, *supra* note 4, at 143.

<sup>23</sup> See *id.* at 144.

<sup>24</sup> See *id.* For an extremely comprehensive set of estimates of Tigris and Euphrates River flow in each of the three countries, see KOLARS & MITCHELL, *supra* note 21, at 85-105.

<sup>25</sup> See KLIOT, *supra* note 4, at 146.

<sup>26</sup> See *Hunger and the Butcher's Bill*, *ECONOMIST*, Sept. 8, 1990, at 45.

<sup>27</sup> See HILLEL, *supra* note 1, at 108.

<sup>28</sup> One of the common retorts by upstream riparians in this system to the complaints of downstream riparians is that the alleged water shortfall is caused not by the water use of the upper riparian, but by inefficient water use by the downstream riparian.

viets and Saudis.<sup>29</sup> Similarly, when Turkey filled its Atatürk dam in 1990, the extreme resulting reduction in Euphrates River flow brought the entire region to the brink of war.<sup>30</sup> The extreme nature of such conflicts between the riparians has led to an intensive search for a peaceful solution to the region's water flow problems. Scholars have looked to international law for possible answers. However, though many scholars feel strongly that it has the potential to at least blueprint a solution, international law has thus far failed to do so.

This Comment focuses on the potential of international law to provide the desired peaceful, long-term solution to the Euphrates River Basin water crisis. In particular, it argues that existing international law conventions and treaties offer inadequate solutions because they do not overcome many of the existing obstacles. Some of these obstacles stem from the nature of international law, while others are the result of the particular circumstances in the Middle East. The Comment concludes with several suggestions on how international law might address some

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<sup>29</sup> See *id.* at 108-09.

<sup>30</sup> Most of the near-misses of armed conflict have been between Iraq and Syria. Their propensity for conflict was due in large part to Syria's position as Iraq's immediate upper riparian; to Turkey not having made, until quite recently, any significant use of the Euphrates or Tigris Rivers; and to the long-standing enmity between Syria and Iraq. See HILLEL, *supra* note 1, at 107-10; KLIOT *supra* note 4, at 160-62. Generally, one country will, due to a combination of factors, natural and man-made, have a bad crop season because of water loss. The suffering country will blame its upper riparian for its perceived insufficient access to water flow, negotiations will fail, troops mass, and then, in the eleventh hour, the upper riparian will agree to release additional water. In fact, this is the series of events that led to several of the existing accords on water release. Specialists in international relations and political science theorize that Syria and Iraq eventually should form an alliance or other combined front against Turkey, which is now responsible for most of the water flow reductions affecting both Syria and Iraq. See, e.g., Frey, *supra* note 6. Several factors, however, have prevented this from occurring thus far. First, as mentioned above, Syria and Iraq have long been politically and socially hostile towards each other. Second, the entanglements that Iraq has had in the last decade with the United Nations and, particularly, the United States make it difficult for Iraq to put any significant military or even political pressure on Turkey. If Iraq settles its dispute with the United States, it will become much more able to join with Syria in putting pressure on Turkey. The United States, however, is increasingly relying on Turkey as a strategic partner in the Middle East and it is certainly possible that the United States' continued pressure on Iraq is in part motivated by its desire to retain friendly relations with Turkey. This struggle highlights the fact that the discussed water rights issues transcend simple water rights issues and have taken on a more powerful political significance.

of these obstacles and remarks on international law's general potential to alleviate conflict in the Euphrates River Basin crisis.

Because the Euphrates River Basin water crisis is a complex issue, Section 2 provides general background information on the Euphrates River Basin, Turkey's GAP, and the traditional positions/arguments of the three Euphrates River riparians, Turkey, Syria and Iraq. Section 3 focuses on the attempts of international law to provide a solution to the crisis, both in the Euphrates River Basin and in similar areas of water crisis around the globe. The subsequent sections discuss the major obstacles that block international law solutions in the Euphrates River Basin conflict. Section 4 focuses on structural limitations inherent in international law, Section 5 on political relations between the three riparians, and Section 6 on inconsistencies between international law and Islamic law.

## 2. THE EUPHRATES RIVER BASIN AND ITS WATER CRISIS

### 2.1. *Topography of the Rivers*

The source of the Euphrates River is in the mountains of eastern Turkey.<sup>31</sup> From there, it flows southward through Turkey, enters Syria, and then passes into Iraq. It then flows southward in Iraq until it joins with the Tigris River at the Shatt al-'Arab, after which the two rivers flow together into the Persian Gulf.<sup>32</sup> In sum, the Euphrates river is approximately 1,875 miles long, with 41% of its length in Turkey, 24% in Syria and 35% in Iraq.<sup>33</sup> The

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<sup>31</sup> See HILLEL, *supra* note 1, at 92-95.

<sup>32</sup> See *id.*; KLIOT, *supra* note 4, at 102-04; Dellapenna, *supra* note 8, at 216-18. In fact, there are now three rivers that come together to flow into the Persian Gulf. The third is a large drainage canal that runs from a point just south of Baghdad between the Tigris and Euphrates rivers in the lower Mesopotamian basin to its base in the Persian Gulf. The canal was first planned and undertaken by American engineers in an attempt to help Iraq more effectively salinize its farmland. However, because of various tensions between Iraq and the United States, the United States eventually discontinued the program. Despite various European efforts to complete the project, the "Third River" remained unfinished after the Gulf War of 1991. At this point Iraq, despite objections from the Americans, finished the project on its own. Foreign observers suspect that the canal has the "hidden purpose" of eradicating the swamp-lands so that the Shiite dissidents in the region will be displaced. Environmentalists also have criticized Iraq because the canal destroyed a distinct ecosystem. See HILLEL, *supra* note 1, at 100-02.

<sup>33</sup> See SOFFER, *supra* note 12, at 74 tbl. 3.1.



water contributing to the flow of the Euphrates originates in Turkey as snow melt, with rainwater added at various points as well. The Euphrates also receives water from various tributaries, all of which join the river in Turkey. Thus, nearly 98% of all water contributing to the Euphrates flow originates in Turkey, while only an additional 2% comes from Syria, and none from Iraq.<sup>34</sup> Thus, Iraq has only a weak sovereign right to the water flow because it does not naturally own any of the resource.

Conversely, several man-made factors detract from the flow of the Euphrates, most notably dams and other projects, such as the GAP, conducted by each of the three riparian states. Another source of flow reduction is evapotranspiration, the process of transferring moisture from the earth to the atmosphere by evaporation of water and transportation of plants, which has both natural and man-made causes. The Euphrates is especially vulnerable to evapotranspiration because it is an "exotic" river, in that it begins in lush mountains and then flows through a large arid climate before eventually emptying into the sea.<sup>35</sup> Along the course of the river, as it passes through the arid regions of lower Syria and Iraq, large amounts of water are lost.<sup>36</sup> Water in the basin also is lost due to evapotranspiration of the large reservoirs of water with great surface area created by the multitude of dams built by all three riparians along the Euphrates.<sup>37</sup> For example, evapotranspiration at the Tabqa Dam in Syria is estimated as high as 630 million m<sup>3</sup> per year.<sup>38</sup> This loss combined with the estimated 476 million m<sup>3</sup> of water lost per year from the Keban dam constitutes

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<sup>34</sup> See Dellapenna, *supra* note 8, at 218; HILLEL, *supra* note 1, at 92-95; KLIOT, *supra* note 4, at 102-04. The Tigris River is smaller and runs faster. The remainder of this Comment will focus on the Euphrates River, and will mention the Tigris only occasionally. This focus is not meant to imply that the Tigris River is not an essential component of the river system or a significant factor in the effort to find a solution to the water-sharing problems. However, the GAP poses a much greater threat to the Euphrates River than to the Tigris since, as mentioned above, Turkey plans to develop the Tigris only after finishing the projects on the Euphrates. One should keep in mind that although Syria and Turkey both claim that Iraq should use the Tigris before complaining about Euphrates flow levels, Turkey does plan on developing the Tigris, which will eventually result in a reduced flow on that river as well.

<sup>35</sup> See Dellapenna, *supra* note 8, at 218. An "exotic" river is one that originates in one type of climate and flows through another type of climate, reducing its flow as it approaches the sea. *See id.*

<sup>36</sup> See KLIOT, *supra* note 4, at 121-22.

<sup>37</sup> *See id.*

<sup>38</sup> *See id.* at 122.

an overall reduction flow of 3.5% percent lost through storage at just two of the several large dams on the Euphrates.<sup>39</sup> Because there are twenty-two dams and nineteen hydroelectric stations contemplated by the GAP in Turkey alone, these problems will only get worse.<sup>40</sup>

## 2.2. *The GAP Project in Turkey*

The GAP is a massive endeavor to increase the economic potential of Turkey through the development in six of its southeastern provinces. The GAP includes the construction of dams, hydroelectric power plants,<sup>41</sup> irrigation projects, and infrastructure, all aimed at dramatically increasing and improving agricultural production in the region as well as the general quality of life for the people who live there.<sup>42</sup> The project is not yet completed, but the anticipated results are extraordinary. Estimates suggest that, upon completion, nearly five million acres of land in the six regions will be irrigated, representing nearly 64% of the total irrigated land in Turkey.<sup>43</sup> Some estimates also suggest that the GAP may create a food surplus in excess of six billion dollars.<sup>44</sup>

The benefits of the GAP to agriculture are obvious. Before the GAP, the six provinces produced very little, and most of what was produced was cereals, pulses, grains, and tubers. Productivity has been very low as a result of the dryness of the soil due to lack

<sup>39</sup> See *id.*

<sup>40</sup> See *id.* at 125; KOLARS & MITCHELL, *supra* note 21, at 19-23; see Delapenna, *supra* note 8, at 218-19, 230. Of that figure, 15 of the dams and 14 of the hydroelectric facilities will be located on the Euphrates River. See *id.*

<sup>41</sup> See *supra* Section 2.1.

<sup>42</sup> See KOLARS & MITCHELL, *supra* note 21, at 19.

<sup>43</sup> See *id.* at 23; Mehmet Tomanbay, *Sharing the Euphrates: Turkey*, RES. & EXPLORATION, Nov. 1993, at 53-55; *TED Case Studies: Atatürk Dam and Environment* (last modified Sept. 1997) <<http://www.american.edu/projects/mandala/TED/ATATURK.htm>> [hereinafter *TED Case Studies*]. But see KLIOT, *supra* note 4, at 131 (estimating only a 53% increase in irrigated land as a result of the GAP). This discrepancy in figures highlights an aspect of the Euphrates River basin situation that has frustrated efforts to come to a solution: the lack of agreement and coherence in figures ranging from flow figures to evaporation rates to potential benefits of projects in terms of potential increases in irrigable land. It is difficult to evaluate competing claims and counterclaims when one does not have a firm grasp on the numbers. In this specific case, however, one can see that even by using the lower estimate of increased land under irrigation in Turkey as a result of the GAP, the increase is still enormous and of tremendous economic value to Turkey.

<sup>44</sup> See *TED Case Studies*, *supra* note 43.

of irrigation. After the completion of the GAP, the regions are expected to produce millions of tons of corn, vegetables, grapes, oil-seeds, pistachio nuts, and fruit, turning a once desolate area into the "breadbasket of the Middle East."<sup>45</sup> The social benefits for the peoples of the region are clear, but there are also significant economic benefits, as Turkey plans to export many of the crops raised in the six provinces. Turkey has historically gained a tremendous economic boost from the sale of agricultural products. In the late 1970's, however, Turkey's agricultural production was significantly reduced. A further benefit to Turkey should come in the form of increased hydroelectric production through the construction of dams and other hydroelectric facilities. The scope of this endeavor is so huge that Turkey expects to increase its total energy output by 70% to 80%.<sup>46</sup>

Along with the agricultural and economic benefits of the GAP, Turkey hopes to recognize a socio-political benefit as well. The six provinces of the southeastern Anatolia region support a significant minority Kurdish population.<sup>47</sup> This group, which has been quite rebellious, has been a thorn in the side of the Turkish government, as well as a political embarrassment. Turkey hopes to bring stability and satisfaction to this Kurdish minority through the development of the GAP regions.<sup>48</sup>

### 2.3. *Historical and Current Water Use Among the Riparians*

Historically, Turkey has not harnessed the potential of the Euphrates River. Despite the fact that the Euphrates is a tremendous source of water and a potentially tremendous source of agricultural and economic development, it flows through the southeast regions of Turkey, far away from the traditional center of Turkish civilization. Syria historically has used relatively small amounts of the Euphrates River flow also, leaving the lion's share of the use of the river to the lowermost riparian, Iraq.<sup>49</sup> Before

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<sup>45</sup> KLIOT, *supra* note 4, at 125.

<sup>46</sup> *See id.*

<sup>47</sup> *See id.*; *see also* SOFFER, *supra* note 12, at 89.

<sup>48</sup> *See* KLIOT, *supra* note 4, at 165; AMER: TURKEY, *supra* note 3.

<sup>49</sup> Of course, the Euphrates-Tigris River basin, and the waters of the twin rivers were the life-blood of the ancient Mesopotamian civilizations located in modern-day Iraq. The oldest known settlements in the area date from 7,000 B.C. But the first real civilization to appear there, and perhaps in the world, were the Sumerians, inventors of Cuneiform, the world's first form of writing. Eventually, the Sumerians were conquered by the Akkadians, who in turn gave

the completion of the Atatürk Dam (the centerpiece of the GAP), the average annual consumption of Euphrates waters for all purposes was 1972 Mm<sup>3</sup> for Turkey, 2133 Mm<sup>3</sup> for Syria, and 29,351 Mm<sup>3</sup> for Iraq.<sup>50</sup> As will be discussed in more detail below, Iraq believes that this ancient pattern of usage entitles it to continued preference among the three riparians.

With the advent of the GAP, and to a far lesser extent similar development projects in Syria, these traditional patterns of Euphrates River water use have changed dramatically, and will continue to do so as the GAP draws nearer to completion. Whereas historically, Syria has been able to count on an flow of roughly 27,000 Mm<sup>3</sup> per year from the Euphrates<sup>51</sup> and Hit Rivers, and Iraq could count on an average of approximately 29,000 Mm<sup>3</sup> per year<sup>52</sup>, these numbers have decreased drastically and are expected to further decline as the GAP nears completion.<sup>53</sup> Kolars and Mitchell estimate that by the year 2001, Iraq's share of water after Turkish and Syrian withdrawals will be 4473 Mm<sup>3</sup> per year, constituting nearly an 85% reduction in flow since the construction

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way to the Babylonians and Assyrians. Beginning around 2300 B.C., these two civilizations existed as neighbors for some time, with the Assyrians to the north in what is now northeastern Syria and northern Iraq, and the Babylonians to the south, covering most of the remainder of present-day Iraq. Babylon and Assyria relied heavily on the Euphrates and Tigris Rivers for navigation and agriculture. Particularly in southern Iraq, where rain is less abundant, the Babylonians developed elaborate irrigation networks using both the Euphrates and the Tigris. During the peak of these two civilizations, the land between the rivers supported as many as 20 million inhabitants. But this was the height of effective use of the twin rivers. In 539 B.C., the Persian Empire took control of the region. Soon after in 331 B.C., Alexander the Great and the Macedonians conquered the region and were followed in turn by the Seleucids, Parthians, Romans, Sassanids, and Arabs. During this time the once efficient system of irrigation along the twin rivers began to erode due to ineffective management. Then, in the twelfth and thirteenth centuries, the Mongol hordes swept through the region (as they did through most of the Near East), and destroyed what was left of the system. This marked the end of any form of effective irrigation use of the rivers for several hundred years. It was not until 1911 that Iraq began construction on the first modern project in the basin, the Hindiya Barrage, a system on the Euphrates carrying water to the surrounding fields year-round. See KLIOT, *supra* note 4, at 117-20; 13 THE WORLD BOOK ENCYCLOPEDIA 346 (1987).

<sup>50</sup> KOLARS & MITCHELL, *supra* note 21, at 89.

<sup>51</sup> *See id.*

<sup>52</sup> *See id.* at 100-01, 255.

<sup>53</sup> *See id.* at 255.

of the Atatürk Dam.<sup>54</sup> If these figures are born out, they would constitute a water crisis for Iraq. Syria also faces significant reductions in water flow as a result of the GAP.

While raw shortage is a major aspect of the Middle East water crisis, it is not the only one. Both the GAP in Turkey and similar projects in Syria have irrigation as their focus. While this certainly takes large percentages of the natural flow of the Euphrates out of circulation permanently, much of the water used for irrigation is ultimately returned to the river drainage system. When this water is returned to the system it often is polluted with salt, pesticides, and other agricultural residue.<sup>55</sup> Thus, the quality, in addition to the quantity, of the remaining water is severely impacted by the GAP. As mentioned above, if all of the planned GAP projects are completed, both Syria and Iraq will have to abandon millions of acres of farmland for lack of irrigation, suffer a drastic reduction in hydroelectric capacity, and, at least during drought years, face potential shortages of drinking-water.

### 3. ATTEMPTS AT A SOLUTION USING PUBLIC INTERNATIONAL LAW

#### 3.1. *Conceptual Underpinnings*

To date, scholars analyzing the dilemma caused by transboundary watercourses<sup>56</sup> have developed four basic legal concepts to address the issue. These are: (1) absolute territorial sovereignty; (2) absolute territorial integrity; (3) limited, or restricted, territorial sovereignty; and (4) the community theory.<sup>57</sup>

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<sup>54</sup> See *id.* As discussed above, this figure likely is no longer precise due to delays in the completion of the GAP projects. The point remains, however, that these are estimates generally applicable to the situation whenever the GAP is completed.

<sup>55</sup> See, e.g., Frey, *supra* note 6; HILLEL, *supra* note 1, at 269.

<sup>56</sup> Transboundary watercourses are those that travel through more than one sovereign state.

<sup>57</sup> See R. Andrew Lien, Note, *Still Thirsting: Prospects for a Multilateral Treaty on the Euphrates and Tigris Rivers Following the Adoption of the United Nations Convention on International Watercourses*, 16 B.U. INT'L L.J. 273, 292 (1998).

### 3.1.1. *Absolute Territorial Sovereignty*

The doctrine of absolute territorial sovereignty (otherwise known as the "Harmon Doctrine")<sup>58</sup> states that a sovereign nation has the right to do whatever it chooses with the water of a transboundary watercourse which flows through its borders.<sup>59</sup> This position is often adopted by upper riparians and has its roots in the concept of national sovereignty, a central tenet of public international law. It also is grounded in power politics, and is most often adopted by upper riparians when they also enjoy regional military superiority.<sup>60</sup>

When faced with an upper riparian adopting the Harmon Doctrine, a lower riparian may resort to military force if that option is available, or hope for the cooperation of the upper riparian.<sup>61</sup> As

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<sup>58</sup> See *id.* at 292 n.137.

<sup>59</sup> See Dellapenna, *supra* note 8, at 244-45; Lien, *supra* note 57, at 292. The doctrine was introduced in 1895 by then U.S. Attorney-General Judson Harmon in response to Mexican protests of the U.S. diversion of the Rio Grande. See *id.* at 292 n.137; see Republic of Turkey, Ministry of Foreign Affairs ("MFA"), *Water Issues Between Turkey, Syria and Iraq* (last visited Feb. 23, 1999) <<http://www.access.ch/tuerkei/GRUPF/water/contents.htm>> [hereinafter MFA]. The United States is the upstream riparian *vis-à-vis* Mexico and exercises nearly plenipotentiary power over the Americas. Furthermore, when the upstream riparian is also the dominant military power in the region, the temptation for that nation to call upon the Harmon Doctrine is palpable. Perhaps for this reason, other nations widely criticized this doctrine. Ironically, in a vivid illustration of the political nature of transboundary river disputes, the United States repudiated the Harmon Doctrine some time later when it found itself the downstream riparian in a water dispute with Canada. See HILLEL, *supra* note 1, at 269-70.

<sup>60</sup> See HILLEL, *supra* note 1, at 269-73; Frey, *supra* note 6, at 29-30.

<sup>61</sup> See HILLEL, *supra* note 1, at 269. Egypt is a prime example of such a situation. While Egypt is the lower riparian state in the Nile River valley, it is also the superior regional military power. Thus, though the situation in the Nile River valley is still complicated, the upper riparians in the system, Sudan and Ethiopia, are largely prevented from exercising the Harmon Doctrine by threat of military action from Egypt. This threat has not always been an option for Egypt and, in any event, Egypt acquired an added degree of protection from its upstream neighbors through the construction of the famous and immense Aswan High Dam located on the Nile, approximately 250 kilometers north of the border between Egypt and Sudan. Completed in 1970, the dam created Lake Nassar, the largest man-made lake in the world, extending some 450 kilometers to the south of the High Aswan Dam. In contrast to the Atatürk Dam or the rest of the GAP project in Turkey, the Egyptian and Sudanese governments engaged in intense negotiations during the construction of the dam to ensure an "equitable" water-sharing arrangement. As compensation for the various effects that the High Aswan Dam would have on Sudan, including the forced relocation of several Nubian settlements which were to be

discussed in greater detail below, Turkey has adopted the Harmon Doctrine with respect to the Euphrates and Tigris Rivers. Iraq has, of course, criticized the legitimacy of this position and, indeed, it is a difficult position to sustain in the international community. Syria is in the interesting position of being the middle riparian, and, thus, has at times adopted the Harmon Doctrine *vis-à-vis* Iraq, while criticizing Turkey for the same position.

Other nations have advanced arguments based on absolute territorial sovereignty in other transboundary river disputes. The U.S. dispute with Mexico has already been mentioned.<sup>62</sup> In another example, in 1961, India constructed the Farakka Dam on the Ganges River, which originates in China, flows through Nepal and India, and eventually flows into Bangladesh. Bangladesh disputed the legality of the project, as it had a substantial effect on Ganges River flow into that country.<sup>63</sup> The two nations engaged in extensive negotiations regarding the project based on the notions of “shared resources,” and “equitable utilization,” but they could not reach an agreement. Ultimately, as creation of the dam drew near to completion, India asserted that the construction of such a dam is “the natural right of any country,” and that any water collected behind the dam belongs exclusively to the country that collected it.<sup>64</sup>

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flooded-out by Lake Nassar, the agreement called for Sudan to hold a larger share of water than it did before construction of the dam, leaving less water to Egypt, which was now protected from drought by Lake Nassar reserves. See Vesilind, *supra* note 7, at 66. The agreement, signed in 1959, did not contemplate formal allocation of a share of Nile water to any of the other upstream riparians. It merely contemplated that if at some future date another upstream riparian should claim its legitimate share of Nile River waters, Egypt and Sudan would consult one another regarding such allocation at that time. To date, no other upstream riparians have come forward to officially claim their shares as entitled by international law. However, there certainly are upstream riparians, like Ethiopia, that need water. So it would seem to be only a matter of time before a nation makes a claim, and the region then will face a new challenge to the relative tranquility of the water-sharing arrangements that are in place today. In fact, Ethiopia, which contributes 85% of the waters of the Nile, recently has threatened to build its own dam on the Nile, upstream of both Sudan and Egypt. See *id.* For a more comprehensive history and analysis of the Nile River valley and its water-sharing arrangements, see HILLEL, *supra* note 1, at 111-42 and KLIOT, *supra* note 4, at 15-99.

<sup>62</sup> See Lien, *supra* note 57, at 291-92; text accompanying *supra* note 59.

<sup>63</sup> See MFA, *supra* note 59, at “The Water Dispute on the Ganges River.”

<sup>64</sup> See *id.*

Were absolute territorial sovereignty adopted as the basis for water sharing in the Euphrates River Basin, Turkey would have an uncontested say in the use of its waters.<sup>65</sup> Then, Turkey could decide how much water, if any, to release downstream to Syria and, in turn, Iraq. These decisions would likely mean the difference between war and peace. In light of the regional animosity between these three nations, it is hardly unimaginable that such unmitigated power in the hands of one country would present a dangerous situation.

### 3.1.2. *Absolute Territorial Integrity*

The doctrine of absolute territorial integrity is in some ways the polar opposite of absolute territorial sovereignty. Under absolute territorial integrity, a downstream riparian "may demand the continuation of the full flow of [water] from an upper riparian state, free from any diminution in quantity or quality."<sup>66</sup> Presumably, the Harmon Doctrine supercedes international law on the subject of sharing water in a transboundary system, as it treats the problem as a matter of the sovereignty of a nation-state.<sup>67</sup> Absolute territorial integrity is generally invoked by lower riparians on a river system, and has indeed been invoked at various times by Iraq and Syria.

Under absolute territorial integrity, Iraq, rather than Turkey, would have the greatest say in use of the waters in the river basin. It is unlikely that Iraq would allow Turkey to carry out its plans, considering the massive reduction of water-flow into Iraq that the GAP would cause. Whether Syria would be able to carry out its plans on the Euphrates without reducing flow into Iraq beneath the level that Iraq would tolerate is an open question. It is entirely possible that Iraq would not permit any development on the river that would reduce flow across its border. This would, of course, result in drastic under-utilization of the river.

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<sup>65</sup> Indeed, Turkey has relied on the Harmon Doctrine, or at least the concept of absolute territorial sovereignty, in the past. In 1989, the Turks threatened to halt completely the flow of the Euphrates to fill the Atatürk Dam. See Vesilind, *supra* note 7, at 49.

<sup>66</sup> Aaron Schwabach, *Diverting the Danube: The Gabcikovo-Nagymaros Dispute and International Freshwater Law*, 14 BERKELEY J. INT'L L. 290, 326 (1996).

<sup>67</sup> See MFA, *supra* note 59, § II C.



### 3.1.3. *Limited Territorial Sovereignty*

Many scholars now consider both of these doctrines to be practically untenable.<sup>68</sup> Indeed, few scholars consider either of the doctrines as a feasible regime for transboundary water resource sharing. This is largely due to the fact that<sup>69</sup> the treaties and conventions that have considered the subject have agreed at least on the notion that no nation may simply commandeer the water in a transboundary river for its own uses, leaving nothing whatsoever for the downstream states.<sup>70</sup>

As a result, the doctrine of limited territorial sovereignty was developed. This doctrine provides that an upper riparian may use transboundary river waters within its borders in any way it chooses, so long as that use does not interfere with the “reasonable utilization” of the waters of a downstream riparian.<sup>71</sup>

It is unclear what results the limited territorial sovereignty doctrine would produce in this region. What, for instance, does “reasonable utilization” mean? In many ways, this system, often touted as the great compromise, and the basis behind many of the treaties and conventions in the field, marks a return to no system at all. What criteria will Iraq, Turkey, and Syria use to determine which uses are “reasonable?” Will they adopt those priorities that other nations use to resolve their disputes? Iraq likely would claim that its historical use of the rivers makes its present uses more “reasonable” than those of Turkey and Syria.<sup>72</sup> Syria, however, likely would argue that Iraq’s ability to use Tigris River waters in place of any Euphrates waters that it might lose from Turkish and Syrian irrigation projects makes its use seem less “reasonable.”<sup>73</sup> Like Iraq,

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<sup>68</sup> See Dellapenna, *supra* note 8, at 244-45.

<sup>69</sup> Discussed more fully *infra* Section 3.2.

<sup>70</sup> See Convention on the Law of the Non-navigational Uses of International Watercourses, G.A. Res. 51/229, U.N. GAOR, 51st Sess., Supp. No. 49, at 7, U.N. Doc. A/RES/51/229 (1997) [hereinafter U.N. Convention]; Helsinki Rules on the Use of the Waters of International Rivers, art. IV, cmt. (a), 52 I.L.A. 477, 486-87 (1966) [hereinafter Helsinki Rules]; Report of the International Law Commission on the Work of its Forty-Third Session, U.N. GAOR, 46th Sess., Supp. No. 10, ch. III, at 152.

<sup>71</sup> See Dellapenna, *supra* note 8, at 245; Schwabach, *supra* note 66, at 327.

<sup>72</sup> See MFA, *supra* note 59, § II B.

<sup>73</sup> Indeed, some estimates suggest that by 2010 a shortage of water from the Euphrates may occur, forcing Iraq to transfer water from the Tigris system to the Euphrates. But these estimates suggest that this would be only a short-term solution as the Tigris itself will likely suffer its own water shortage by 2025. See SOFFER, *supra* note 12, at 105.

Syria would also argue that it has “acquired rights” to water from Turkey due to historical patterns of use.<sup>74</sup> Turkey would likely argue that the agricultural uses that Syria and Iraq propose are inefficient and wasteful. Most of the water that comprises the Euphrates and Tigris Rivers comes from Turkey, which, Turkey will argue, gives it greater rights than the other riparians.<sup>75</sup> Turkey further would argue that the concept of “acquired rights” is not a valid claim to superior water rights.<sup>76</sup> Daniel Hillel has summarized the problem:

The issue in contention is how to weigh historical rights against proportionate contributions to flow, taking into consideration such associated factors as the real needs of each country. Among those are the availability of energy (e.g., petroleum); the need for hydroelectricity; the feasibility of developing economic alternatives to irrigation-based farming; the efficiency of water use; and the size of each country's population.<sup>77</sup>

Placing these factors in order remains as intractable a concern between the three riparians as it has been since the GAP was first announced. Thus, this supposed solution at international law seems no more useful than either absolute territorial integrity or sovereignty.

#### 3.1.4. *Community Water Management*

In lieu of those doctrines, some have advocated the use of a community management theory: the idea that communal management of a transboundary water system is necessary to achieve its optimal use. Those who support this idea have set forth three necessary conditions for achieving a workable community management system. They are:

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<sup>74</sup> See MFA, *supra* note 59, § II B.

<sup>75</sup> See Tomanbay, *supra* note 43, 53-55.

<sup>76</sup> See *id.*

<sup>77</sup> HILLEL, *supra* note 1, at 102-03.

- a) Developing and managing the water basin as a unit without regard to international borders, ideally through a joint transnational institutional structure;
- b) Sharing the benefits of that development and management according to an agreed formula or procedure; and
- c) Establishing a procedure for constructive investigation and peaceful resolution of disputes.<sup>78</sup>

With these four doctrines in mind, I now turn to the more significant international and bipartite treaties and agreements that have been created in recent years.

### 3.2. *International Agreements*

#### 3.2.1. *The Helsinki Rules*

In 1966, the International Law Association (“ILA”) met to create a document establishing rules of international law governing the use of transboundary watercourses. The ILA produced a document that became known as the “Helsinki Rules on the Uses of Waters of International Rivers.”<sup>79</sup> The most salient points of the Helsinki Rules were twofold. First, the rules adopted the concept of limited territorial sovereignty by stating that a basin state is entitled, “within its territory, to a *reasonable and equitable share* in the beneficial uses of the waters of an international drainage basin.”<sup>80</sup> Again, the rule is limited by the fact that it fails to specify what constitutes a “reasonable and equitable share” under the doctrine. To that end, Article V of the Helsinki Rules delineates the factors to be considered in determining what represents a sovereign state’s reasonable share.<sup>81</sup> This list of factors includes geography, hydrology, climate, past utilization, economic and social needs, population, cost of alternative means, availability of other resources, avoidance of unnecessary waste, practicability of compensation of other riparians, and harm caused to downstream

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<sup>78</sup> Joseph W. Dellapenna, *Treaties as Instruments for Managing Internationally-Shared Water Resources: Restricted Sovereignty v. Community of Property*, 26 CASE W. RES. J. INT’L L. 27, 52 (1994) [hereinafter Dellapenna, *Treaties*].

<sup>79</sup> Helsinki Rules, *supra* note 70.

<sup>80</sup> *Id.* art. IV (emphasis added).

<sup>81</sup> *See id.* art. V.

riparians.<sup>82</sup> Still, these rules fall short as many of the factors are too highly subjective to have any practical value.

The Helsinki Rules, based as they are on the doctrine of limited sovereignty, have not proven useful, as such, in the Euphrates Basin. They have, however, had two enduring effects on the general situation. First, the Helsinki Rules, as a statement supporting the doctrine of limited territorial sovereignty, act as an international agreement against the doctrines of absolute territorial sovereignty and absolute territorial integrity.<sup>83</sup>

The second important and enduring feature of the Helsinki Rules is Article XXIX. Here, the Rules state that any riparian planning to undertake a project that would alter the flow of a transboundary water system should give prior notice to any downstream riparian that may be affected.<sup>84</sup> These two provisions, and their later expressions in other treaties discussed below, have served as the basis for claims that Turkey has violated and continues to violate international law in the development of the GAP. Though these provisions have far from settled the matter, they do provide a background for the dispute.

### 3.2.2. *ILC Draft Articles and The Watercourse Convention*

In 1994, the International Law Commission ("ILC"), a U.N. commission established in 1947 for the codification of international law, published at its forty-sixth session, a set of thirty-three draft articles on the law of the non-navigational uses of international watercourses ("Draft Articles").<sup>85</sup> Given the nature of the ILC as an objective codification body, it was not clear whether these Draft Articles were a simple codification or an attempt at progressive development.<sup>86</sup>

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<sup>82</sup> See *id.*

<sup>83</sup> Lien, *supra* note 57, at 295.

<sup>84</sup> Helsinki Rules, *supra* note 70, art. XXIX.

<sup>85</sup> See Reaz Rahman, *The Law of the Non-navigational Uses of International Watercourses: Dilemma for Lower Riparians*, 19 FORDHAM INT'L L.J. 9, 12 (1995).

<sup>86</sup> See *id.* at 14. The question of codification versus progressive development is, perhaps, a bit misleading. There are various definitions of "codification." "Scientific codification" envisions a task of "ascertaining" and "declaring" existing international law. See OSCAR SCHACHTER, *INTERNATIONAL LAW IN THEORY AND PRACTICE* 66-67 (1991). At the same time, however, codification often includes filling in gaps and removing inconsistencies. See *id.* at 71. To the extent that these become significant, they often take on the character of progressive development.

In May of 1997, the United Nations General Assembly adopted the Convention on the Law of the Non-navigational Uses of International Watercourses ("Convention").<sup>87</sup> Essentially, this is a revision of the Draft Articles. The Convention was adopted by the General Assembly by a vote of 103 in favor, and 3 against, with a high number of abstentions (26). It should also be noted that of the 103 votes in favor, 18 (or nearly 20%) of those nations are unaffected parties, in that they are insular states containing no transboundary watercourses.<sup>88</sup> The three votes against the Convention were, significantly, Burundi, China, and Turkey, all three of which are upper riparian states. As Turkey did not sign the Convention, it is not bound by it.<sup>89</sup>

The most significant articles of the Convention are fourfold. First, Article 3, Sections 3 and 4<sup>90</sup> allow watercourse states to enter into 'watercourse agreements' with other watercourse states that amend or otherwise change the provisions of the Convention to suit the particular political, social or geographical needs of the given watercourse or region.<sup>91</sup> In reality, this is both a strength and a weakness of the Convention. The provision does give watercourse states the flexibility to use the Convention as a blueprint from which a bilateral or multilateral treaty suited to the political and demographic realities of the particular regions can be formulated. However, it also tends to dilute the force of the

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<sup>87</sup> U.N. Convention, *supra* note 70.

<sup>88</sup> See Aaron Schwabach, *The United Nations Convention on the Law of Non-navigational Uses of International Watercourses, Customary International Law, and the Interests of Developing Upper Riparians*, 33 TEX. INT'L L.J. 257, 262 (1998) [hereinafter, Schwabach, *U.N. Convention*].

<sup>89</sup> See *id.* In fact, the existence of the Convention, and Turkey's refusal to sign it, actually add strength to a claim that it is not bound by the developing agreement on principles of international law on transboundary waterways embodied in the Convention. As discussed in more detail below, international law is generally formed through treaty, custom and general principles. See STATUTE OF THE INTERNATIONAL COURT OF JUSTICE [I.C.J.], June 16, 1945, art. 38, 59 Stat. 1055, 1060. Since a country must accept a treaty or custom in order for it to be bound by that treaty or custom, *see id.*, Turkey's express rejection of the Convention demonstrates its lack of acceptance of the principles embodied therein whether found in treaty or customary international law. Thus, Turkey has strengthened its position as unbound by existing principles of international law that might otherwise be applicable.

<sup>90</sup> Article 3 states, "Watercourse States may enter into one or more agreements . . . which apply and adjust the provisions of the present Convention to the characteristics and uses of a particular international watercourse or part thereof." U.N. Convention, *supra* note 70, art. 3 § 3.

<sup>91</sup> See *id.*

Convention and to give nations an easy way to virtually ignore its provisions. In short, nations can simply "contract around" the Convention. Indeed, several states voting in favor of the Convention voiced dissatisfaction with the ambiguity of Article 3, and expressed their right to enter into separate agreements which would supercede the provisions of the Convention.<sup>92</sup> India went as far as to say that Article 3 undermined the applicability of the Convention.<sup>93</sup>

Second, Articles 5, 6 and 7 of the Convention are substantially revised from the Draft Articles, apparently in an attempt to rectify an imbalance in the Draft Articles in favor of lower riparians. These three articles contain two major provisions that are the centerpiece of the international law on non-navigational uses of transboundary waterways, and are the most common source of contention: "equitable utilization" and "no significant harm." Article 5 states that "Watercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse states with a view to attaining optimal and sustainable utilization thereof and benefits therefrom . . ."<sup>94</sup> Next, as dictated by the Helsinki Rules, Article 6 of the Convention sets out the factors that are to be considered in determining what is "equitable utilization." These include geography, hydrology, climate, social and economic needs of watercourse states involved, population of watercourse states, effects of use by one state on another, existing and potential uses of the watercourse, conservation, and availability of alternatives of comparable value to a particular planned or existing use.<sup>95</sup> Of particular importance, the factor "population dependent on the watercourse in each watercourse State"<sup>96</sup> was included in the Helsinki Rules, omitted from the Draft Articles, and now included in the Convention.<sup>97</sup>

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<sup>92</sup> See Schwabach, *U.N. Convention*, *supra* note 88, at 268-69.

<sup>93</sup> See Transcript of the Convention on the Law of Non-navigational Uses of International Watercourses, U.N. GAOR, 51st Sess., 99th plen. mtg., at 10, U.N. Doc. A/51/PV.99 (1997) [hereinafter Transcript].

<sup>94</sup> U.N. Convention, *supra* note 70, art. 5.

<sup>95</sup> See *id.* art. 6.

<sup>96</sup> *Id.*

<sup>97</sup> Schwabach, *U.N. Convention*, *supra* note 88, at 272.

Article 7 of the Convention adds the precarious doctrine of “no significant harm.” The Draft Articles contained a similar concept, no appreciable harm.<sup>98</sup> Such doctrines clearly benefit upper riparian states, but remain a weakness of international law because they remain ambiguous. Article 7 reads as follows:

1. Watercourse States shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States. 2. Where significant harm nevertheless is caused to another watercourse State, the States whose use causes such harm shall, in the absence of agreement to such use, take all appropriate measures, having due regard for the provisions of articles 5 and 6, in consultation with the affected State, to eliminate or mitigate such harm and, where appropriate, to discuss the question of compensation.<sup>99</sup>

Articles 5, 6 and 7 have drawn significant, broad-based criticism from members of the Convention.<sup>100</sup> States voting for and against the Convention, as well as those abstaining, voiced reservations.<sup>101</sup> In particular, many expressed concern over the ambiguity of the articles when read together. It was unclear, they said, whether the controlling concept was “reasonable use” or “no significant harm.”<sup>102</sup> Additionally, the meaning of “no significant harm” is also unclear. Since the Draft Articles, which helped form the Convention, state the principal as “no appreciable harm,” harm likely must be more than simply noticeable. The Convention, however, offers no guidance as to how great the harm can be before it is considered significant. Furthermore, it does not specify how riparian states should interpret the juxtaposition of “no significant harm” with “reasonable use.” For example, if the GAP causes significant harm to Syria and Iraq, as it almost surely does, can Turkey offer justification by claiming that it is nevertheless an equitable and reasonable use based on the

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<sup>98</sup> See Rahman, *supra* note 85, at 23.

<sup>99</sup> U.N. Convention, *supra* note 70, art. 7.

<sup>100</sup> See Transcript, *supra* note 93.

<sup>101</sup> See Schwabach, *U.N. Convention*, *supra* note 88, at 271-72.

<sup>102</sup> *Id.*

needs of its own population? To a certain degree, this question about the Euphrates River is academic since Turkey voted against the Convention. Academic or not, however, this discussion illustrates one of the primary deficiencies of international law as it exists in the Convention: overall lack of clarity. This lack of clarity, in turn, contributes to the weakness of international law. Where the Convention is vague, nations remain unclear on how to follow it. Where nations find that a principle or convention of international law lacks clarity, many scholars consider it to lack legitimacy, or at least lack strength.<sup>103</sup> Professor Thomas Franck, for instance, points to four factors that contribute to the legitimacy of an international law: “determinacy” (clarity of the rule); “symbolic validation” (legitimacy/authority of the rules origins); “coherence” (consistency of the rule); and “adherence” (whether there is a body of secondary rules that assist in interpretation of the primary rule).<sup>104</sup> According to Franck, to the extent a rule of international law lacks these factors, it will be easier for nations to ignore the rule.<sup>105</sup>

Certainly the Convention as written lacks determinacy.<sup>106</sup> As previously discussed, it is also not clear which of “no significant harm” or “reasonable use” in the Convention should take precedence. It is not clear what constitutes significant harm. Nor is it clear what constitutes “reasonable use,” or how the various factors listed should be weighted. It therefore lacks “adherence.” There is no infrastructure of secondary law that helps nations interpret the central questions I have already raised. One might also argue that the Convention lacks “coherence”—the very conflict between “reasonable use” and “no significant harm” makes the Convention inconsistent. Indeed, many nations that participated

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<sup>103</sup> See, e.g., THOMAS M. FRANCK, *THE POWER OF LEGITIMACY AMONG NATIONS* 24, 25 (1990); Prosper Weil, *Towards Relative Normativity in International Law?*, 77 AM. J. INT'L L. 413, 414-15 (1983).

<sup>104</sup> See FRANCK, *supra* note 103, at 49.

<sup>105</sup> See *id.*

<sup>106</sup> While this may or may not undermine the strength of the law, it is argued that vagueness does not make the law any less “law.” See LOUIS HENKIN, *HOW NATIONS BEHAVE: LAW AND FOREIGN POLICY* 95 (2d ed. 1979); Weil, *supra* note 103, at 415. However, while it may not undermine its status as law, *per se*, it certainly weakens its force and enforceability. See *id.*



in the Convention expressed a desire for greater clarity on the juxtaposition of these two principles.<sup>107</sup>

Thus, one obstacle facing use of international law in the Euphrates River Basin is its lack of what Franck would call "legitimacy."<sup>108</sup> What law exists is what he calls "soft law."<sup>109</sup> If international law is to be useful in the Euphrates River Basin conflict, it must be made more clear and unambiguous. Certainly, this is going to be very difficult given the political nature of the relationships between Turkey, Syria, and Iraq. It is for this reason that some sort of political agreement must be reached between the three nations before international law can be more than a starting point.

Third, Articles 11 through 17 continue the pattern of requiring notification for planned measures on an international watercourse.<sup>110</sup> Essentially these provisions expand the notification concept introduced in the Helsinki Rules and preserved in the Draft Articles. Very few states objected to the adoption of the Draft Articles, which included those that ultimately abstained or voted against the Convention.<sup>111</sup> States' general acceptance makes the notification doctrine, at least its general theory, one of the few practically applicable, non-controversial, and widely followed practices of international law regarding non-navigational uses of transboundary watercourses.

Finally, and perhaps most controversially, Article 33 describes a method for dispute resolution.<sup>112</sup> First, Article 33 requires negotiation between watercourse states in conflict.<sup>113</sup> If negotiation does not settle the matter, the parties may then seek mediation by a third party.<sup>114</sup> If after six months no settlement is reached, Article 33 allows the parties to establish a Fact-Finding Commission comprised of one nominee from each concerned state and a final member chosen by the nominees.<sup>115</sup> Concerned parties must pro-

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<sup>107</sup> See Schwabach, *U.N. Convention*, *supra* note 88, at 275 (noting that many nations generally objected to the ambiguity of the Convention).

<sup>108</sup> FRANCK, *supra* note 103, at 16-19.

<sup>109</sup> *Id.* at 29.

<sup>110</sup> See U.N. Convention, *supra* note 70, arts. 11-17.

<sup>111</sup> See Schwabach, *U.N. Convention*, *supra* note 88, at 274.

<sup>112</sup> See U.N. Convention, *supra* note 70, art. 33.

<sup>113</sup> See *id.* art. 33 § 2.

<sup>114</sup> See *id.*

<sup>115</sup> See *id.* art. 33 §§ 3, 4.

vide the Commission with any information it might require as well as access to the territory of any states involved.<sup>116</sup> Finally, the Commission must submit its findings in a report, "which the Parties concerned shall consider in good faith."<sup>117</sup> Many states objected to this article. Some advocated for a more effective provision, while others, like China, expressed no objection to "fact-finding" per se, but refused to submit to a settlement dispute provision that could in any way compel a sovereign state to act.<sup>118</sup>

Having discussed the past and present state of international law regarding non-navigational uses of international courses this Comment now considers the various disputes that have arisen among the riparians in the Euphrates River Basin within that context.

### 3.3. *Arguments of the Riparians*

#### 3.3.1. *Iraq*

Iraq is the most vulnerable of the riparians in the Euphrates River Basin for several reasons.<sup>119</sup> First, Iraq is the furthest downstream and, therefore, has little control over how much flow it receives from the Euphrates, or the quality of the water it does receive. Any Euphrates River project undertaken by Syria or Turkey has a direct effect on Iraq's water supply. Second, Iraq's bargaining position within the region has been weakened by its recent confrontations with the United Nations and the United States. Though from a military standpoint Iraq was perhaps the most powerful nation in the Middle East in the late 1980s, it has fallen in stature as a result of the Gulf War and the military actions taken against it by the United States and Great Britain in late 1998. Thus Iraq has lost a great deal of its military leverage.<sup>120</sup>

Iraq justifies its use of the Euphrates River with two arguments. First, based upon the legal doctrine of absolute territorial integrity, Iraq argues that the waters that flow through its borders are its sovereign possession, and that it therefore has the right to

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<sup>116</sup> See *id.* art. 33 § 7.

<sup>117</sup> *Id.* art. 33 § 8.

<sup>118</sup> See Schwabach, *U.N. Convention*, *supra* note 88, at 274-75.

<sup>119</sup> See HILLEL, *supra* note 1, at 102.

<sup>120</sup> See Frey, *supra* note 6, at 29.

do with them as it pleases.<sup>121</sup> Iraq notes that countries as prevalent in the system of international law as the United States have relied on this doctrine when they were developing countries, and abandon it only when they are in a position to be more magnanimous.<sup>122</sup> Second, Iraq claims it possesses “acquired rights” from two sources. Iraq points to the fact that Mesopotamian civilization first started using the Euphrates waters for irrigation thousands of years ago in the area that is presently Iraq.<sup>123</sup> Therefore, claims Iraq, this prior use should take precedent, and no upstream riparian should be entitled to take away the water that has been used by the Iraqi people for thousands of years. Iraq also argues that its irrigation structures, which preexisted either Turkey’s or Syria’s development of the Euphrates, should act as a baseline. In short, Iraq argues that flow from the river ought not to be reduced below the level necessary to support these pre-existing irrigation installations.<sup>124</sup>

One interesting possibility that has remained largely unexplored is whether Iraq’s prior usage of the Euphrates and Tigris waters and, more importantly, Turkey and Syria’s historical acquiescence to Iraq’s use, constitutes a regional custom. As explained previously, international law can be created through custom. Custom can be found on a world-wide level or a regional level. Regional customs create regional customary international law. Further, unless a country “unambiguously and persistently” registers its objection to a custom while that custom is in its development stage, that country will be said to have accepted that regional custom and therefore be bound by it.<sup>125</sup> Iraq could argue that Turkey and Syria have demonstrated acceptance of the customary distribution of Euphrates and Tigris River waters as they

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<sup>121</sup> See MFA, *supra* note 59, § II A.

<sup>122</sup> See text accompanying *supra* note 59.

<sup>123</sup> See Adai Hardan, *Sharing the Euphrates: Iraq*, RES. & EXPLORATION, Nov. 1993, at 73; MFA, *supra* note 59, § II A; see generally text accompanying *supra* note 49.

<sup>124</sup> See *id.* § II A.

<sup>125</sup> See Humphrey Waldock, General Course on Public International Law, in RECUEIL DES COURS 5, 49-53 (Academie De Droit International ed., 2d ed., 1962); see generally Haya de la Torre Case (Colo. v. Peru), 1950 I.C.J. 266 (holding that the Colombian government proved the existence of such a custom, but, even if such custom did exist between certain Latin American countries, that the custom could not be invoked against Peru, which repudiated it) [hereinafter Asylum Case].

have allowed Iraq to take its water without objection for hundreds of years.

Once a country has accepted a custom it is bound by that custom. Even if a country sporadically deviates from the custom, as long as those deviations do not indicate a lack of acceptance of the custom by the given nation, it will be presumed to accept the custom.<sup>126</sup> Thus, Iraq could argue that Turkey and Syria have demonstrated their acceptance of the regional custom and that they are now bound by it. Turkey and Syria likely would accept the notion that a country that accepts a custom is bound by that custom. However, they also would likely point out that a country not only must accept such a custom, but it must adhere to the custom because it has accepted it as law, not simply out of coincidence or convenience. This is the notion of *opinio juris*.<sup>127</sup> Thus, Turkey and Syria would argue that they have allowed Iraq to use the bulk of the Tigris and Euphrates flow because they have not, until recently, felt any desire to harness those rivers themselves, not because they felt any legal obligation not to do so. The resolution of this question would hinge on a historical analysis of Iraq's use of the waters and Turkey's acceptance thereof, which is beyond the scope of this Comment.

Iraq argues that, from the standpoint of the existing, international law conventions, Turkey has violated international law in several respects. First, in 1990, Turkey almost entirely cut off the flow of the Euphrates River in order to fill up the reservoir at the Atatürk Dam. Iraq claims that this was done without proper notification as required by the Helsinki Rules (and later codified in the Draft Articles and the Convention). This argument is tenuous, however, since it seems clear that Turkey did give notice through its increase of the normal flow of the Euphrates into Syria for several months in advance of the filling of the reservoir.<sup>128</sup> However, despite this attempt at compensation by Turkey, the almost total cut-off of Euphrates River flow for more than a month did cause significant harm to Iraq in the form of crop loss, which might rise to the level sufficient to constitute a violation of the rules intended by the Convention. Iraq further

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<sup>126</sup> See generally *Military and Paramilitary Activities (Nicar. v. U.S.)*, 1986 I.C.J. 14 (June 27) (discussing whether the United States violated customary law by using military and paramilitary activities against Nicaragua).

<sup>127</sup> See Waldock, *supra* note 125, at 45-49.

<sup>128</sup> See Vesilind, *supra* note 7, at 49-50.

argues that, in accordance with the Convention, factors such as its climate, social need, effects of the use or uses of the watercourse in one state on other states, and existing uses of the watercourse favor its argument that the GAP, as planned, is not a “reasonable use” of the Euphrates.<sup>129</sup>

### 3.3.2. *Syria*

Syria argues from a weak position in the Euphrates River System discussions because it is both an upstream riparian with respect to Iraq, and a downstream riparian with respect to Turkey. Its arguments, therefore, have been predictably inconsistent. Recently, however, Syria has begun to align itself more closely with Iraq in a united front against Turkey, requesting that the ILC codify a final form of the Draft Articles, which it did by way of the Convention.<sup>130</sup> Many believe that this alignment of Syria with Iraq against Turkey is the natural position for Syria, and was only a matter of time to become that, due to Syria’s historical resentment of Iraq.<sup>131</sup>

Syria, like Iraq, points to the doctrines of ancient rights and reasonable use/significant harm to claim that Turkey is in violation of international law. Syrians believe that the water of the Euphrates is for the people who live on its banks, and is not to be harnessed exclusively by upstream riparians.<sup>132</sup> In the end, both Syria and Iraq voted in favor of the Convention.<sup>133</sup>

### 3.3.3. *Turkey*

Turkey responds to the claims that the GAP is not a “reasonable use” under the Convention by pointing to several factors that

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<sup>129</sup> See MFA, *supra* note 59, § II B.

<sup>130</sup> See *id.* As further evidence that Iraq and Syria have adopted a position of mutual cooperation and a unified front against Turkey, in April of 1990, Iraq and Syria signed an agreement in which Syria agreed to send Iraq 58% of any water that comes down the Euphrates from Turkey. See U.N. Convention, *supra* note 70.

<sup>131</sup> See ASSOCIATES FOR MIDDLE EAST RESEARCH WATER PROJECT, WATER ISSUES IN THE MIDDLE EAST: SYRIA: POLITICAL, ECONOMIC AND STRATEGIC 117 (1989) [hereinafter AMER: SYRIA]. In fact, the Turkish—Syrian border has not always been where it is now, and many Syrians believe that the GAP project is a means by which Turkey hopes to solidify its illegitimate control of ancient Syrian land.

<sup>132</sup> See *id.*

<sup>133</sup> See Transcript, *supra* note 93.

are enumerated in Article 6, including hydrological factors, social and economic need, population dependence on the watercourse, and availability of alternative uses of comparable value.<sup>134</sup> Furthermore, Turkey rejects the notion of ancient acquired rights as controlling, suggesting instead that this is but one element among many that should be used to consider whether a planned use for a transboundary river system is equitable.<sup>135</sup>

Still, Turkey has not taken the position that it can do whatever it wants with the river, regardless of the effect on downstream riparians, though it is not clear whether this is due to belief in limited territorial sovereignty, or simply to political expediency, as described below. In any event, in 1987, Turkey signed an agreement promising to deliver at least 500 m<sup>3</sup> per second down the Euphrates annually into Syria.<sup>136</sup> Both Iraq and Syria have since requested that this figure be increased, but so far Turkey has refused.<sup>137</sup>

#### 4. STRUCTURAL LIMITATIONS OF INTERNATIONAL LAW

##### 4.1. *Sovereignty*

One of the most enduring features of international law is its reliance on the concept of the sovereignty of the nation-state.<sup>138</sup>

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<sup>134</sup> See KLIOT, *supra* note 4, at 160-65; Tomanbay, *supra* note 43, at 59-60; MFA, *supra* note 59, § II C.

<sup>135</sup> See *id.*

<sup>136</sup> See KLIOT, *supra* note 4, at 162.

<sup>137</sup> See *id.* at 163-64 (noting that Syria and Iraq have asked for a constant flow of 700 m<sup>3</sup> per second).

<sup>138</sup> See *S.S. Lotus (Fr. v. Turk.)*, 1927 P.C.I.J. (ser. A) No. 9 (Sept. 7), 2 Hudson, World Ct. Rep. 20, at 35. The *S.S. Lotus* case coined one of the most famous phrases in international law, at least as regards the sanctity of sovereignty of nations in international law: "Restrictions on the independence of States cannot therefore be presumed."

The case involved a jurisdictional dispute between France and Turkey. After a collision on the high-seas between French and Turkish vessels, which resulted in the death of several Turkish citizens, the French ship docked in Constantinople. Once on Turkish soil, the Turks arrested the French officer of the watch and prosecuted him for criminal negligence. The French protested, claiming that Turkey did not have jurisdiction to prosecute a French citizen for an incident that happened on the high-seas while the officer was on a French-flagged vessel. In essence, the French claimed that since there was no point in international law giving Turkey such jurisdiction, Turkey had none to assert. The Permanent Court of International Justice, however, determined that to block Turkey from exercising jurisdiction, France had to find a principle of in-

Very few, if any, conventions of international law contain formalized provisions for enforcement of the law. This is why the seemingly toothless provisions for dispute resolution found in Article 33 of the Convention are considered by some to be quite draconian.<sup>139</sup> Out of this basic premise of sovereignty in international law, the two apparently opposing legal doctrines of absolute territorial sovereignty and absolute territorial integrity are almost intuitive. It is these two doctrines that characterize the tension in international law of watercourses.<sup>140</sup>

Yet the doctrines are not as different as they seem at first glance. Though they are often considered polar opposites, they are both expressions of the adherence of international law to the sovereignty of nations.<sup>141</sup> Absolute territorial sovereignty means that a nation can do whatever it wishes with the waters that are within its borders.<sup>142</sup> There is not much difference between this notion and that of absolute territorial integrity, its so-called polar opposite. Absolute territorial integrity also holds that a nation can do whatever it wants with the waters within its borders, and no nation can do anything to interrupt the normal flow of water over which a nation is sovereign.<sup>143</sup> At least in part, international law stumbles here because it tries to apply itself to an arbitration of two legitimate claims of sovereignty. It is ill-equipped to do this because it has at its core a belief in the sanctity of the sovereignty of the nation-state.

This tension bears itself out not only in the basic doctrines of the international law of transboundary watercourses, but also in written conventions. Many consider the Convention<sup>144</sup> to be a formalized and codified expression of the doctrine of limited territorial integrity.<sup>145</sup> This can be seen in the tension between the competing concepts of “equitable and reasonable”<sup>146</sup> use and “no

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international law forbidding Turkey’s exercise. In short, the court held that what international law does not forbid, it allows. *See id.*

<sup>139</sup> *See* Schwabach, U.N. Convention, *supra* note 88, at 274.

<sup>140</sup> *See id.* at 276.

<sup>141</sup> *See id.*

<sup>142</sup> *See id.*

<sup>143</sup> *See id.*

<sup>144</sup> *See* U.N. Convention, *supra* note 70.

<sup>145</sup> *See, e.g.,* Schwabach, U.N. Convention, *supra* note 88, at 277.

<sup>146</sup> *See* U.N. Convention, *supra* note 70, art. 5.

significant harm”<sup>147</sup> found in the Convention.<sup>148</sup> The question, then, is simply to decide where along the scale between the two doctrines, and their respective conceptual counterparts, international law will fall.<sup>149</sup> But again, as discussed above, international law is ill-equipped, due to its conceptual underpinnings, to choose between these two equally valid expressions of the same sacred notion of nation-state sovereignty.

One possible solution might be for international law to approach the problem by avoiding the nation-state sovereignty issue as much as possible. A legal regime that thinks of the law in terms of something other than the nation-state as principle actor could be better suited to tackle the problems involved in finding a coherent and workable blueprint for the law of transboundary waterways. This may be one reason, in addition to the obvious one that the Euphrates River is located in the Middle East, why some scholars have examined the potential of Islamic law, with its focus on individual spiritual belief, to solve these problems.<sup>150</sup>

Public international law's belief in nation-state sovereignty creates an obstacle for itself in one other important respect. This belief causes difficulty in international law enforcement of any compulsion on a nation-state. Public international law is developed primarily by custom, which is defined as a “consistent pattern of behavior joined with the sense that the practice is legally obligatory.”<sup>151</sup> Nations act in a given way, adhering to certain norms and practices, and these norms in turn become custom and, thus, public international law.<sup>152</sup> Usually, as is the case in environmental law, the basic concept of what is attempted is a goal that all parties involved eventually favor. Although it is certain that developing countries favor different levels of environmental restrictions than do developed nations, all nations eventually want to see clean air and waterways. Hence, public international law's

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<sup>147</sup> See *id.* art 7.

<sup>148</sup> See Schwabach, *U.N. Convention*, *supra* note 88, at 277.

<sup>149</sup> See *id.* at 276.

<sup>150</sup> See David A. Westbrook, *Islamic International Law and Public International Law: Separate Expressions of World Order*, 33 VA. J. INT'L L. 819 (1993). This concept is also the likely impetus for scholars like Dellapenna to look to water resource management cooperatives as a potential solution to transboundary waterway issues. See Dellapenna, *supra* note 8.

<sup>151</sup> *Id.*

<sup>152</sup> See Dellapenna, *supra* note 8, at 239-41.



reluctance and/or inability to compel nations is ultimately not a crucial issue, as compliance will follow from self-interest.

With the law of transboundary waterways, this is not the case. Interests between upper and lower riparians are not necessarily similar. After all, while lower riparians and neutral parties have an interest in equitable sharing of a transboundary waterway, upper riparians have little self-interest that would militate towards this position.<sup>153</sup> Ultimately, water rich upper riparians have no reason to self-enforce norms of public international law in this arena, and they resist any compelled compliance. It was no surprise that the countries that objected to the quasi-compelling aspects of Article 33 of the Convention were almost all primarily upper riparians.<sup>154</sup>

#### 4.2. *Applying Public International Law to Situations Involving the Survival of Nation-States.*

Finally, it is less than clear whether public international law, as it is currently constructed, was ever intended, or is even equipped, to handle a crisis of this type. Generally, public international law is based on the consent of the nation-states over which it governs.<sup>155</sup> It is for this reason that public international law recognizes that a principle does not become a rule of international law unless it has been “accepted” by the international community.<sup>156</sup> There are three primary ways by which international law is created: custom, international agreement (treaties and conventions), and “general principles.”<sup>157</sup> A country can be

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<sup>153</sup> One notable exception can apply when a state is an upper riparian with respect to one significant transboundary river system but the downstream riparian with respect to another. Syria is an example of such a state. Another possible source of self-interest is the interest a state has in peaceful relations with its neighbors. In a region like the Middle East, where tensions between neighbors often run high, its source of self-interest is often reduced.

<sup>154</sup> See Transcript, *supra* note 93.

<sup>155</sup> See Asylum Case, *supra* note 125; SCHACHTER, *supra* note 86, at 36; WALDOCK, *supra* note 125, at 50.

<sup>156</sup> See RESTATEMENT (THIRD) OF FOREIGN RELATIONS §102(1) (1987) [hereinafter RESTATEMENT]. Indeed, other sources providing guidance on rulemaking in international law recognize writings by scholars, academics and other “publicists” as sources of international law, but these writings have been widely recognized as evidence of international law rather than as independent sources of law themselves. See Statute of the I.C.J., *supra* note 89, art. 38 § 1(d); see, e.g., S.S. Lotus, *supra* note 138.

<sup>157</sup> See RESTATEMENT, *supra* note 156, § 102(1)(a)-(c).

viewed as accepting an international legal custom through its failure to demonstrate its opposition to the custom. Thus, a nation need only demonstrate its opposition to ensure that it is not bound by that custom as a matter of international law.<sup>158</sup>

Given this requirement for consent and the notion that the consent of a nation-state adopting a particular rule of international law depends on that nation's self-interest, broadly defined, it seems unlikely that a state would adhere to any rule of international law if its very survival were at stake. Nor would a nation accept a rule of international law that compromised its sovereignty, the very foundation on which international law is built.

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<sup>158</sup> See *Paquete Habana*, 175 U.S. 677 (1900); *Asylum Case*, *supra* note 125; RESTATEMENT, *supra* note 156. During the developmental stage of a customary rule of international law, a state that consistently voices its opposition to that custom will not be bound by it, even though the custom nevertheless becomes a rule of international law through its acceptance by other nations in the world or the region. If, however, a country does not actively voice its opposition to the custom during its developmental stage, the country then is considered to have consented to the custom and will be held responsible for abiding by the rule that emerges. See RESTATEMENT, *supra*, note 156; WALDOCK, *supra*, note 125. It is generally accepted that nation-states behave according to their respective self-interests. Thus, if a particular custom or treaty seems to be in a nation's self-interest it will consent to it. Once the nation-state has consented to a custom or a treaty, it becomes a rule of international law, at least as applied to that nation. See RESTATEMENT, *supra* note 156.

The concept of enforcement of an international law is also somewhat complex. Though it may have been in a nation's best interest to consent to a custom or a treaty at the time that it consented, circumstances change, and a country may find itself no longer wishing to abide by an international law it previously accepted. There is little in the way of "vertical enforcement" to compel a nation to abide by an international law. See J.L. BRIERLY, *THE LAW OF NATIONS* 100-102 (6th ed. 1963). "Vertical enforcement" might be seen as the equivalent of the police in the United States. Thus, one may question whether public international law is law at all if it cannot be enforced.

The responses to this questioning have fallen into two main categories. First, some scholars respond by claiming that while international law may lack mechanisms of "vertical enforcement," the international community of nations does have a kind of "horizontal enforcement" to compel compliance with international law. This "horizontal enforcement" can be seen as a kind of incentive-creating force between nations to comply with international law. A nation that does not abide by its agreements and violates clearly established and long-held norms of international behavior will quickly find that it suffers from various "extra-legal" consequences *vis-à-vis* other nations in the international community. See FRANCK, *supra* note 103, at 24; HENKIN, *supra* note 106, at 92-98. Second, other scholars have made the somewhat practical point that how international law is or is not enforced is highly irrelevant, given that most nations tend to obey clearly and properly established rules of international law. See *id.*

Indeed, when asked about the United States' actions towards Cuba during the Cuban Missile Crisis, Dean Acheson responded:

I must conclude that the propriety of the Cuban quarantine is not a legal issue. The power, position and prestige of the United States had been challenged by another state; and law simply does not deal with such questions of ultimate power—power that comes close to the sources of sovereignty. I cannot believe that there are principles of law that say we must accept destruction of our way of life.<sup>159</sup>

If international law is a system built on consent of nations to be governed, essentially to cede aspects of their sovereignty, then international law is hard-pressed to apply to a situation where the very survival of nations is in question. Such is clearly the case in the water crisis among Turkey, Syria and Iraq.

## 5. POLITICAL FACTORS

### 5.1. *The Peace Pipeline*

One of the common mistakes of scholars studying the water crisis in the Middle East, and looking for a solution, is a tendency to analyze the problem without reference to the political realities of the region. A good example of this is the "Peace Pipeline."<sup>160</sup> The Peace Pipeline was an idea originally conceived as a massive dual pipeline sending large quantities of water down from Turkey (likely from storage in the reservoir of the Atatürk Dam), south through Syria and into southwestern Saudi Arabia at Mecca on the western branch and Bahrain on the eastern branch.<sup>161</sup>

This proposal originally generated quite a bit of interest because it solved many problems. Water that would not suffer from the quality degradation problems associated with irrigation runoff from Turkey and Syria could be delivered downstream. Syria, and perhaps also Iraq, could be guaranteed a certain amount of

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<sup>159</sup> Dean Acheson, *Remarks* (Apr. 25, 1963), in Quincy Wright, *The Cuban Quarantine*, 1963 AM. SOC'Y INT'L. PROC. 13, 14 (1963).

<sup>160</sup> See Dellapenna, *supra* note 8, at 233-35.

<sup>161</sup> See *id.*; KLIOT, *supra* note 4, at 132-33.

water on a regular basis and Turkey could make a profit from the water it shipped to the lower Middle East.<sup>162</sup> For some time, many thought that a solution to the water crisis had been found.

Yet this plan did not take into account the political significance of the water, the river, and the land to a country, particularly an Islamic country. To Syria, which would have to go along with any form of the Peace Pipeline plan,<sup>163</sup> accepting the Peace Pipeline concept meant giving up the Euphrates River as a source of water. In effect, Syria would have to abdicate control of the Euphrates and of certain amounts of annual flow, in return for water from Turkey down the pipeline. But this meant more to Syria and Iraq, than just giving up the water from the river. To these nations, largely due to their Islamic roots, giving up the water flow of the Euphrates meant giving up the land beneath the river, which constituted relinquishing some of the basic sovereignty of the nation itself.<sup>164</sup> In the end, this was a major factor in derailing plans for a Peace Pipeline.<sup>165</sup> At this point, the idea of such a pipeline is practically dead.<sup>166</sup>

Several other political factors have combined to make any political agreement between the three riparians impossible. Without

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<sup>162</sup> See KLIOT, *supra* note 4, at 133. The issue of Turkish income generation through the sale of water touches on another factor that tends to inform the positions of the three riparians. Of Turkey, Syria and Iraq, Turkey is the only nation that is considered "water rich." Turkey gets an annual rainfall of between two and four thousand cubic meters, while Iraq and Syria each receive far less than two thousand cubic meters per year. See Anthony R. de Souza, *Reflections on an Elusive Resource*, RES. & EXPLORATION, Nov. 1993, at 3-6. Of course, as is the central issue of this Comment, Turkey also benefits from its position as an upper riparian with respect to many different river systems, while Syria and Iraq are generally down-stream riparians. Thus, Turkey is really the only one of the three countries with water to burn, or sell, as the case may be. On the contrary, however, while Turkey is water rich and Iraq and Syria water poor, Turkey is the only country of the three that is not blessed with a vast oil reserve. This factor likely has led to a feeling on the part of Turkey that water is one of the few natural resources that it has in surplus, and to a desire to use this fact to its advantage.

<sup>163</sup> See KLIOT, *supra* note 4, at 132.

<sup>164</sup> See AMER: SYRIA, *supra* note 131, at 125.

<sup>165</sup> This points to the ever-present political calculus that complicates matters in the region. Syria has long distrusted Turkey, seeing it as a potential hegemonic power in the region. Indeed, Syria has often claimed that the Peace Pipeline is little more than a scheme on Turkey's part to make Syria, Iraq and other Arab countries dependent on Turkey for water and, thus, economically and politically dominated by Turkey. See MFA, *supra* note 50, § II B.

<sup>166</sup> See Dellapenna, *supra* note 8, at 234.

political agreement first, it is unlikely that international law will be able to function in the region.<sup>167</sup>

### 5.2. *The Kurdish Situation*

Political considerations shape Turkey's position regarding sharing the Euphrates waters. Compelling Turkey toward a tougher stance is its concern about the Kurdish minority in southeast Turkey.<sup>168</sup> This politically rebellious faction of Turkish society is a significant minority in the Southeast Anatolia region and Turkey hopes to use the GAP, and the prosperity it hopes it will bring to the region, as a stabilizing mechanism.<sup>169</sup> In addition, Turkey is not blind to the power position it has in the region. The fact that Iraq's army is in disarray and is probably in no position to challenge Turkey militarily, combined with Turkey's position as the upper riparian, gives Turkey almost total control of the situation. Thus, temptation is high for Turkey to use water as a political club to hold over its downstream neighbors. For instance, Turkey recently indicated that it would connect water issues to Syria's acquiescence to Turkish demands not to support the rebel Kurdish Workers Party ("PKK"), the Kurdish separatist faction in southern Turkey and northern Syria.<sup>170</sup>

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<sup>167</sup> See Thomas Naff, *Water: That Peculiar Substance*, RES. & EXPLORATION, Nov. 1993, at 7, 12.

<sup>168</sup> Today, there are more than 20 million ethnic Kurds in Turkey, many of whom live in southern Anatolia, the GAP region. The Kurds have historically been persecuted by the Turkish government and the Kurds both in Turkey and across Europe have long-called for an independent Kurdish state. The Turkish government has killed many Kurds and burned many Kurdish villages in response to Kurdish rebel movements in Turkey. See Stephen Kinzer, *Kurds' Rebel Leader May Prove a Discredit to His Cause*, N.Y. TIMES, Feb. 17, 1999, at A6. The Kurds actually were promised their own state in the Treaty of Sevres in 1920, but this never came to pass. Today, the Kurds are not recognized in Turkey as a minority, and Kurdish language is illegal in "broadcasts, educational or political settings." See Alessandra Stanley, *Top Kurd's Arrest Unleashes Rioting All Across Europe*, N.Y. TIMES, Feb. 17, 1999, at A1.

<sup>169</sup> See Tomonbay, *supra* note 43, at 56-58.

<sup>170</sup> Turkey had suspected Syria of harboring Abdullah Ocalan, leader of the PKK, and long-time rebel scourge of Turkey. See Stephen Kinzer, *In Snatching a Fugitive Rebel, Ankara Wins Opportunities on Several Fronts*, N.Y. TIMES, Feb. 17, 1999, at A6. In fact, Syria had harbored Ocalan for 18 years and had given significant financial support to Ocalan's PKK in the past as well. See *id.* In its recent capture of Ocalan, however, Turkey significantly pressured Syria, causing it to expel Ocalan and cooperate in his capture. See Stanley, *supra* note 168, at A6.

At the same time, however, Turkey is extremely interested in joining the community of western nations and the European Union.<sup>171</sup> As such, it feels pressure to act as a "good neighbor" and not to be seen as a rogue state acting in violation of international law.<sup>172</sup> These conflicting political realities have made it difficult for Turkey to work toward a political settlement and have often led to inconsistent Turkish statements of policy and actions.<sup>173</sup>

In Syria, the politics regarding water are dominated by the fact that Syria is a participating riparian in no less than three separate river systems involving many countries. First, Syria shares the Euphrates Basin with Turkey and Iraq.<sup>174</sup> Second, it does not have exclusive rights to the Orontes River Basin, which flows southward from Lebanon, moves into Syria, and ends up in Turkey before dumping into the sea.<sup>175</sup> Lastly, Syria shares with Jordan the Yarmuk River Basin, a tributary of the Jordan River, which itself is shared by many countries, including Israel.<sup>176</sup>

It is important to note that Syria is somewhat of a middle-man in all of these river systems because it is both an upstream and a downstream riparian relative to different countries. As the man in the middle, Syria cannot judge the concerns over one river system in isolation. Any decisions or agreements it makes with Turkey or Iraq over the use of the Euphrates has ramifications in its dealings with Jordan, Lebanon, or Israel regarding the Orontes and the Yarmuk Rivers. For this reason, the situation in Syria is interesting. Unlike Turkey, which is primarily an upper riparian, Syria is compelled by its own interests to seek a solution at international law that is equitable to both upstream and downstream riparians.<sup>177</sup> Thus, it is through Syria that the conflict over the Basin stands the best chance of being peacefully resolved.

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<sup>171</sup> See Dellapenna, *supra* note 8, at 245-55. Specifically, Turkey has seen the capture of Abdullah Öcalan as an opportunity to improve its image on human rights through treating Öcalan with strict "legal formalities." See Kinzer, *supra* note 168.

<sup>172</sup> See Dellapenna, *supra* note 8, at 255.

<sup>173</sup> See *id.* at 255-56.

<sup>174</sup> See *id.* at 218.

<sup>175</sup> See AMER: SYRIA, *supra* note 131, at 8.

<sup>176</sup> See *id.* at 8; Dellapenna, *supra* note 8, at 255.

<sup>177</sup> Indeed, Syria has repeatedly asked the United Nations to expedite its work on the Convention so that it would have a framework of international law under which to resolve disputes between the states. See MFA, *supra* note 59, § II B.

Finding a solution to the Euphrates water crisis is further hampered by the political situation in Iraq. Since the Gulf War in 1991, relations between Iraq and the West have been strained. Relations between Iraq and Turkey—historical allies in the region—have also been strained due to Turkey's tacit support of the West's confrontation with Iraq.<sup>178</sup> In addition, due to the U.N. trade sanctions and embargo on Iraq,<sup>179</sup> it is largely unable to sell oil. This makes it more difficult for Iraq to purchase water or crops to make up for any shortfall caused by the recent restrictions on Euphrates River flow. Until the U.N. sanctions are lifted, it is unlikely that Iraq will abandon its hard-line position on absolute territorial integrity and ancient rights. Given its current economic situation, it can hardly afford to do so.

The political situation in the Middle East, then, further complicates the problem of finding a solution at international law to the water crisis. This Comment has outlined some of the more specific and immediate political issues affecting the situation, but relations between countries in the Middle East are quite complex. It seems clear, however, that before public international law is able to provide a lasting solution to the water problems, there must be some sort of political agreement that brings stability to the region.

#### 6. INCONSISTENCIES BETWEEN PUBLIC INTERNATIONAL LAW AND ISLAMIC LAW

There is a general agreement that Islamic law is ill-equipped to create solutions for the Euphrates River water crisis.<sup>180</sup> While this issue is beyond the scope of this Comment, it seems clear that, while Islamic law and public international law share some important features, they also contain a few differences that may substantially impede the effective use of public international law in solving this water crisis.

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<sup>178</sup> See text accompanying *supra* note 8.

<sup>179</sup> See generally Tod Robberson, *Use-By Dates Not a Big Problem*, SYDNEY MORNING HERALD, Jan. 15, 1991, at 6 (discussing the effects of the embargo on Iraq).

<sup>180</sup> See Thomas Naff, *International Riparian Law in Islamic and Western Systems: A Comparative Analysis* (unpublished manuscript, on file with author); Westbrook, *supra* note 142.

Islamic law is based on the concept of “shari’a”, or divine law.<sup>181</sup> Some scholars have noted a superficial sense of hope of Islamic law in this situation, noting that “shari’a” originally meant “the path to the watering place.”<sup>182</sup> While this may seem to indicate Islamic law is well suited to address the Euphrates water crisis, the concept of “shari’a” actually highlights one of the principal differences between Islamic Law and public international law. “Shari’a” is an expression of God’s will, and it is believed that God’s will involves power with legal authority.<sup>183</sup> One scholar has defined the Islamic suspicion of political institutions and distrust in the governing authority of the nation-state by explaining that from the Islamic perspective, “the exercise of politics is likely to be willful and involve men in untruth, or in rebellion against the divine will.”<sup>184</sup> Such a perspective explains why Islamic law would be suspicious of public international law, which is based on both the concept of the nation-state and the proceedings of political institutions such as the U.N. and World Trade Organization (“WTO”).<sup>185</sup> Interestingly, Westbrook has suggested that this difference in willingness to use international discourse may stem from Western society’s historical reliance in the institution of the church as a mediator of disputes and a source of law. The Islamic experience of God is, however, “unmediated by a church.”<sup>186</sup>

Islamic Law is based on the pursuit of finding God’s will and performing it— a conceptual method known as “fiqh.”<sup>187</sup> Westbrook states that one could view this facet of Islamic law optimistically because it may lead Turkey, Syria, and Iraq towards a communal management system of the Euphrates River Basin.<sup>188</sup> This scholar points out that the “shari’a” “allocates community water among users and calls upon water users from time to time to maintain the communal water system.”<sup>189</sup> But Westbrook argues that this opinion is likely the product of wishful thinking.<sup>190</sup>

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<sup>181</sup> See Westbrook, *supra* note 150, at 823.

<sup>182</sup> Dellapenna, *supra* note 8, at 259-60.

<sup>183</sup> See Westbrook, *supra* note 150, at 823.

<sup>184</sup> *Id.* at 864.

<sup>185</sup> See *id.*

<sup>186</sup> *Id.* at 866 n. 121.

<sup>187</sup> *Id.* at 825, 845-49.

<sup>188</sup> See Dellapenna, *supra* note 8, at 259-60.

<sup>189</sup> *Id.* at 260.

<sup>190</sup> See Westbrook, *supra* note 150, at 848.



Not only does it fail to recognize that the political situation in the Middle East must be stabilized before anything resembling a shared water management commission could be arranged between the three riparians, it also fails on the same criteria as the peace pipeline.<sup>191</sup> While a communal water management commission may be capable of solving the problem of water allocation facially, it will not be able to resolve the question of sovereignty over the Euphrates River, which all three riparians jealously protect.

Westbrook notes that for a Muslim intellectual contemplating international law, “the devil’s choice is posed: either adopt the culture of the West, and lose one’s culture and thus oneself, or renounce the culture of the West, and lose one’s role in the modern world.”<sup>192</sup> Certainly, the claim that Muslim nations must completely avoid Western legal institutions is unfounded, as every member of the Arab League is also a member of the United Nations.<sup>193</sup> Yet it is true that, among Islamic nations, there remains a distrust of Western institutions, a desire to retain Muslim culture despite partially integrating with the West, and a lasting belief in the immutability of God’s law. These factors remain an obstacle to the effective use of public international law in the Euphrates River Basin.

## 7. CONCLUSION

To the complications created by the political situation in the Middle East, conflict between Islamic Law and Public International Law, and the structure of Public International Law itself, one can add a host of smaller issues. Those that I have discussed above are simply the most important ones. One other issue, however bears mention: the increasing population of the region. In a world that is experiencing alarming global growth in population, the Middle East as a region is experiencing particularly dramatic increases.<sup>194</sup> Both Syria and Iraq have been and continue to

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<sup>191</sup> See *supra* Section 5.1.

<sup>192</sup> See Westbrook, *supra* note 142, at 848.

<sup>193</sup> For a list of United Nation member nations, see UNITED NATIONS, COMMEMORATION OF THE FORTIETH ANNIVERSARY OF THE UNITED NATIONS: STATEMENTS AND MESSAGES (1995).

<sup>194</sup> See Joel L. Swerdlow, *Population*, NAT’L GEOGRAPHIC, Oct. 1998, at “Millennium Supplement: Population.”

experience population growth at a rate of two and a half to three per annum, greatly exacerbating a pre-existing situation of water scarcity.<sup>195</sup> This only makes the riparians of the river system that much less eager to abandon their respective notions of sovereignty vis-à-vis the river and its waters. Ironically, Turkey, the only water rich nation in the region, has the lowest population growth.<sup>196</sup> The only ray of hope that this offers is that international legal doctrine does give a clear preference in water rights to that water needed to support a population. This would seem to give some generally accepted legitimacy to the claims of the lower riparians on the Euphrates, since most of the water claimed by the GAP project is not needed for basic human sustenance.

It may be that, as is the case with so many world problems, attempts to solve the water crisis in the Euphrates River Basin should focus on population control, rather than on the crisis per se. After all, much of the crisis stems from projected shortfalls around 2020 when population levels will have dramatically increased.<sup>197</sup> In any event then, the political situation in the Middle East, conflicts with Islamic Law, rampant population growth in the arid Middle East, and the structural incompatibilities between public international law and the water crisis, all present major obstacles that must be addressed before public international law can truly be effective in the region.

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<sup>195</sup> *See id.*

<sup>196</sup> *See id.*

<sup>197</sup> *See* SOFFER, *supra* note 12, at 105.