

Water and Diplomacy in the Jordan River Basin

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Water Resources in the Area

In the Middle East region, only Lebanon and Turkey do not suffer from grave shortages of water. The irregular, unequal, often violent yearly regime of rains is the main reason for water shortage and uncertainty of regular water supply. In recent decades, the available water resources have undergone quality deterioration, mainly due to natural (geogenic) and man-triggered (anthropogenic) processes of salinization and pollution.

The Jordan River basin extends over Lebanon, Syria, Jordan, Israel and the Palestinian Authority. This is a typical transboundary basin in which no country may dispose independently of its waters and all are at the mercy of the other riparians. West of the Jordan River (Cis-Jordan—Israel and Palestine) certain groundwater resources are also transboundary and have to be shared by Israel and the Palestinians.

Not only is the Middle East deficient in water, but throughout the region the demand for this vital commodity is continually on the rise.

A significant parameter which serves as a guideline for the assessment of water resources and their management is the “annual safe yield.” This is the average volume of water which may be exploited in a given region, basin or country

without causing hydrological damage. For the whole territory of Cis-Jordan, the average annual safe yield is approximately 1.9 billion cubic meters (BCM) per year. The average safe yield for the Kingdom of Jordan is approximately 0.9 BCM annually.

In the West Bank there are 2.19 million Palestinians living in over 600 communities. The total yearly water resources available to them were, in 2006, 80 million cubic meters (MCM) per year, half of which was purchased from Israel and the rest derived from local sources. According to Palestinian Water Authority statements, the total needs for Palestinian domestic uses are around 120 MCM. In other words, the amount of water needed to fill the gap is around 40 MCM.

Surface Flow

In Cis-Jordan, surface flow occurs westward to the Mediterranean Sea, eastward to the watershed of Lake Kinneret–Jordan River and the Dead Sea and, in the south, to the Red Sea. The total annual average surface flow to the Mediterranean Sea is 130 MCM.

The Jordan River is the result of the confluence of the Banias, Hasbani and Dan streams; the average joint flow is about 520 MCM, though in extreme years that figure may fluctuate, even reaching 1,100 MCM. In the past, the total discharge of the Jordan River into the Dead Sea was some 1,200 MCM. Due to upstream exploitation by river riparians, this amount has dwindled to a mere 100–200 MCM. The water in the river south of Lake Kinneret is highly polluted and heavily loaded with salts.

Between 200 and 700 MCM annually reach the Kinneret (also known as Lake Tiberias or the Sea of Galilee). But then 270 MCM are lost each year to evaporation, and anywhere between 100–520 MCM is pumped into Israel's National Water Carrier.

During the 1930s to 1950s, the salinity of this water was high, in the range of 300–400 mg/L. This was due to the relatively saline and thermal water discharging from springs and seepages located on- and offshore, mostly along the western side of the lake. The salinity of these springs varies from 3,000 to 21,000 mg/L. The original salinity levels were regarded as too high both for human consumption and for salt-sensitive crops. In order to bring them down, a system was devised by which 20 MCM of saline water were diverted annually from the lake. By this means, the lake's salinity was lowered to a level of 200–250 mg/l. The exploitation of water from the lake is strictly regulated, in order to prevent flooding of surrounding settlements, as well as possible and uncontrolled outbursts of saline water from

the bottom of the lake and from known onshore and submarine saline springs and seepages.

Groundwater Basins

Groundwater flow occurs in subsurface basins, the boundaries and physical properties of which are defined by geological and structural factors and by hydraulic properties. Some of the groundwater basins are transboundary, extending over Israeli and Palestinian territories.¹ The Northeastern Samaria–Gilboa basin (with an estimated annual yield of some 140 MCM) and the Eastern Judea basin (100–125 MCM) are transboundary, i.e., they extend over both Israeli and Palestinian territories.

In Jordan, groundwaters flowing to the lower Jordan Valley and to the Dead Sea are estimated to have a sustainable annual yield of 270 MCM.

The Role of Water-Related Issues in Defining the Boundaries

The scarcity of water in the region coupled with the intensive settlement of the land by different peoples and tribes has meant, over the ages, that political and legal norms were required to regulate water issues. The Bible tells us of the territorial importance of the location of wells for the nomadic shepherds. The scarcity of water has often been a catalyst for the development of laws and borders.

Water and Boundaries Prior to 1923

Prior to World War I, the boundaries relevant to the Jordan basin were administrative, demarcating different vilayets of the Ottoman Empire which were all under common sovereignty; hence, no international interests were involved. In 1915, during the war, Britain and France conducted discussions and negotiations as to the future of the Ottoman Empire, including the area of the Jordan basin. In May 1916, the Sykes–Picot Agreement, concluded by Britain and France, provided for the dissolution of the Ottoman Empire. The agreement included a sketch of the proposed borders drawn on a very large-scale map—but these borders apparently did not take into account questions of water rights.

Yet, in the context of the future boundaries of Palestine, this issue did play prominently in British considerations from 1918 onwards. At an internal British meeting, convened by Prime Minister Lloyd George in September 1919, views were expressed as to the “great importance of including the head-waters of the Jordan in Palestine.”² Lloyd George commented that Lake Kinneret “was essential for the irrigation and development of Palestine.”³ At an April 1920 meeting of the Supreme Allied Council held at San Remo, it was agreed that the Principal Allied

Powers should determine the new boundaries. This provision was included in the peace treaty signed with Turkey at Sèvres on August 10, 1920. This treaty was not ratified and it was only in the 1923 Treaty of Lausanne that Turkey formally renounced all rights to its former empire.⁴ During these latter negotiations, questions of riparian rights played a major role.

In the 1920 negotiations with France, the British position was stated to be that "His Majesty's Government are not prepared to conclude any arrangements which do not contain due provision for the future utilization by Palestine of the waters of the Yarmuk and the Litani [Rivers], which may well prove vital to the economic development of the country and the creation of a national home for the Jews."⁵

One writer summarizes these discussions as a "British–Zionist battle for the water for Palestine's irrigation plans, against a fight over French prestige in regard to their holding of territories in the face of the retreat from the Sykes–Picot agreement."⁶ The major sources of the Jordan River, the Dan (Tel-el-Qadi) and Banias springs, were to be in Palestine. Nevertheless, the agreement reached in 1920 between France and Britain placed Syria as a riparian on the Jordan River and divided Lake Kinneret between Palestine and Syria. The agreement made no reference to the waters of the Litani. The whole of the Yarmuk valley was to be in French-controlled territory, and the border was to pass "from Semakh [Zemah] across the Lake of Tiberias... it will then follow the course of this river [the Jordan] upstream."⁷ The French government agreed to "give its representative the most liberal instructions for the employment of the surplus of those waters for the benefit of Palestine."⁸ The agreement stipulated, in Article 2, that a commission should be established within three months of the signature of the Convention to delimit the boundary on the ground.

Water and the 1923 Boundary between Syria and Palestine

This Boundary Commission, appointed in accordance with the 1920 Anglo–French agreement, made substantial changes to the boundaries set out in the agreement. The changes were based largely on the decision not to divide lands owned by influential local Bedouin sheikhs. According to the Commission, the Banias spring was to be in Syria, although the agreement stipulated that "the British government shall be free to reopen the question of readjusting the frontier between Banias and Metullah on such terms as may be agreed between the two Mandatory Powers with a view to making the north road between these two villages the final frontier."⁹ This clause was apparently intended to allow the British government to reopen the question of the Banias spring; however, the British refrained, subsequently, from raising the issue.¹⁰

The boundary was placed parallel and east of the Jordan River; thus the whole of the river north of the Kinneret was within Palestine. The boundary with Syria in the northern part of Lake Kinneret was to be “10 metres from the edge of Lake Tiberias, following any alteration of level consequent on the raising of its waters owing to the construction of a dam on the Jordan south of Lake Tiberias.”¹¹ This boundary left the entire lake within Palestine, while inhabitants of Syria were to retain traditional fishing and navigation rights there. The work of the commission regarding the Jordan basin was approved by Britain and France¹² and was registered with the League of Nations, together with the 1920 convention. At Italy’s instigation, the issue of the British–French exchange of notes was submitted to the Council of the League of Nations, which subsequently approved them.¹³ A later, 1926, agreement between Britain and France reaffirmed Syrian fishing and navigation rights in Lake Kinneret and stipulated that “All rights derived from local laws or customs concerning the use of the waters, streams, canals and lakes for the purpose of irrigation or supply of water to the inhabitants shall remain as at present.”¹⁴

Water and the Boundary between Palestine and Transjordan

Questions of water rights appeared to have played only a minor part, if any, in the boundary demarcation between Palestine and Transjordan in 1922. At that time, both territories were under British Mandate and presumably the British did not foresee water disputes. It is interesting, however, to note that Winston Churchill queried the British High Commissioner for Palestine as to “which bank of the Jordan constitutes the boundary.” The High Commissioner replied, “Transjordan would probably raise strong objections if a boundary other than center of the Jordan were adopted.”¹⁵ The boundary was subsequently declared to be “up the center of the Wady Araba, Dead Sea and River Jordan to its junction with the River Yarmuk: thence up the center of that river to the Syrian frontier.” This boundary was approved by the League of Nations.¹⁶

Political Boundaries and Water Issues after 1947

In regard to the 1947 UN Partition Plan, water expert James Hays wrote, “Fortunately, those who had been responsible for working out the details of the United Nations partition plan were familiar with the basic aspects of the Lowdermilk–Hays project and took it largely into account in drawing the boundaries of the new states.”¹⁷ Apparently water issues did not play a significant part in the negotiation of the Jordan–Israel armistice line.

They did play more of a role in the Israel–Syria armistice negotiations. Syria attempted to obtain access to the Kinneret, and one Israeli expert writes that

during the 1949 armistice talks, the lake “was a cardinal issue.”¹⁸ While the 1923 international boundary between Palestine and Syria was drawn east and at a certain distance from the Jordan River, the Israel–Syrian armistice line provided that at some places the line would be along the Jordan River itself. Although no Syrian troops were allowed in the area between the armistice line and the International Boundary, and despite the fact that the armistice line was not a territorial settlement, “Syria claimed riparian rights wherever it had access to the water, i.e., on certain parts between its formation at the confluence of the Dan, Hasbani and Banias.”¹⁹ As regards Lake Kinneret, the armistice line followed the international boundary set at a distance of 10 meters from the water line, although between 1949 and 1967 Syrian troops were in reality at the water’s edge. During the period 1953–1967, Syrian boats fished the waters off the northeast coast of the lake. The Syrian justification for such fishing rights was based on the terms of the 1923 agreement, although Syria refrained from formally acknowledging its validity, and the 1949 armistice agreement made no reference to such rights. Israel submitted a number of complaints to the Israel–Syrian Mixed Armistice Commission claiming that the fishing was a violation of the 1949 Israel–Syrian Armistice Agreement and that Israel used armed patrol boats in an attempt to prevent such fishing. The fishing and subsequent confrontations continued until the 1967 war.²⁰

The Major Plans for Utilization of the Basin

In regard to the Jordan River basin, one expert has written, “Although the importance of water might appear to generate conflict, it has in fact made cooperation more likely than conflict.”²¹ Indeed, water has been one of the few issues on which Israelis and Arabs have made real efforts at cooperation. In the mid-20th century, numerous plans were submitted for cooperative methods of utilizing the waters of the Jordan basin as an integral whole, with some pointing to the Kinneret as a storage reservoir. Most of the plans envisaged diverting the Yarmuk’s waters to an East Ghor canal and allowing for the possibility of a West Ghor canal.²²

The Arab Diversion Plan

This plan, originally approved by the Arab League in 1954,²³ was to divert the waters of the Hasbani stream into the Litani River in Lebanon and thence to the Mediterranean and the Banias stream, by way of the Golan Heights, to the Yarmuk River for discharge into the East Ghor canal or the lower Jordan River. The plan would have “cut by 35 percent the installed capacity of the Israel Carrier.”²⁴ It was seen by Israel as a “spite” plan intended to deprive Israel of most of the waters

of the Jordan without putting them to any beneficial use. Work was commenced by Syria and Lebanon in 1965 but was interrupted by Israeli military action in July 1966 and not resumed.

The “Johnston Plan”

In October 1953, US President Eisenhower appointed Special Envoy Eric Johnston to mediate a comprehensive plan for utilizing the waters of the Jordan River basin. Johnston continued negotiations with the parties till the end of 1955, when he presented his Unified Plan.²⁵

“It was proposed in the final plan that distribution be so arranged that neither side would have physical control over it.”²⁶ The Kinneret was to be used by Israel for its own storage of Jordan waters and the Kingdom of Jordan was to build a dam at Maqarin to store Yarmuk waters. There was no reference in the plan to the waters of the Litani, nor were there any restrictions on transferring water allocations to outside the basin. Water was allocated to the states on the basis of quantities, not percentages, while the plan also designated the recipients of any residue waters beyond the specified allocation. “Under the plan that evolved, approximately 60 percent of the water of the Jordan River system was to be allocated to Lebanon, Syria and Jordan, and the remaining forty percent to Israel.”²⁷

Although the technical experts of Israel, Jordan, Lebanon and Syria agreed upon every important detail of a unified Jordan plan,²⁸ the Arab League decided not to approve the plan and referred it back to its Technical Committee for “further consideration until an agreement safeguarding Arab interests would be reached”²⁹ —in effect, deferring it sine die. According to Lowi, “It is probably correct to say that withholding recognition of the State of Israel was the immediate reason for the non-committal response of the Arab Political Committee to the Revised Unified [Johnston] plan in October 1955.”³⁰

Legal Arrangements

The Role of International Law and the Jordan Basin

There is as yet no multilateral international treaty in force dealing with the allocation of water resources of international drainage basins.³¹ International law on the subject consists of customary law, and the “evidence of customary international law is scattered, elusive and unsystematic.”³² Furthermore, throughout the history of the many plans and negotiated understandings and agreements concerning the Jordan River basin, there has been a dearth of explicit references to international law. One explanation for this is that “neither classical nor modern international law principles of transboundary water sharing...have been fully embraced by

this region, due in part to its distinct cultural heritage and highly volatile and complex political and security issues.”³³ McCaffrey notes that “International law has played only a minor role in the relations between the countries riparian to the Jordan River system since Israel became a State in 1948.”³⁴ Regarding the Israel-Jordan Peace Treaty, Israeli negotiator Daniel Reisner writes:

From the onset of the negotiations it was evident that any attempt to resolve the Israel–Jordanian water problem through strict reliance on such legal terminology would be doomed to failure, due to the fact that, in the final analysis, water disputes can only be resolved by the specific determination of quantities and quality of water to be allocated and not by means of general concepts.³⁵

Nevertheless, the history of the proposed plans for the Jordan River basin has, to a large extent, mirrored the development of international water resources law. Bourne states that the “contradictory arguments” made by the riparians to the Jordan River basin was one of the reasons that led the Institute of International Law and the International Law Association to study and formulate customary law on the subject.³⁶

Issues of international water resources law appear to have become increasingly relevant only since 1948, when the influx of Jewish immigrants and refugees into the State of Israel and Arab refugees into the Kingdom of Jordan required increasingly larger quantities of water for irrigation and general consumption in both states. This led Israel and Jordan to begin planning large-scale engineering waterworks of dams, canals, and pipelines using Jordan River basin waters. In addition, the involvement of the United States and, later, the World Bank as facilitators and financiers meant that that any project had to have international legitimacy.

Customary Rules

International customary law prescribes a number of general rules as to utilization of international water resources – for example: a state must give due notice regarding any water project likely to affect another state; states must attempt to reach agreement on such projects, although they do not enjoy veto rights over another state’s project; a state may not use its territory to cause appreciable harm to the water resources of another state; and there must be an equitable distribution of shared water resources. Equitable utilization is “to be determined through consideration of all relevant factors in each particular case.”³⁷ Among the factors likely to be stressed by the parties in any future Israel–Palestinian negotiations are “natural features,” “prior use,” and factors of “population, social and economic

needs and available alternatives.” A position advanced by Arab states during the Johnston talks was that “the waters in a catchment area should not be diverted outside that area unless the requirements of all those who use, or genuinely intend to use, the waters within the area have been satisfied.”³⁸ However, the proposed restriction on “out of basin use” is not reflected in customary law.³⁹

International law cannot provide a formula that adapts general rules to all specific circumstances, and it is up to the parties themselves to negotiate mutually satisfactory arrangements.

The Legal Status of the Johnston Plan

The Johnston Plan did not explicitly deal with legal rights, as such, nor did it set out the legal basis for its proposed allocations. The US Department of State, however, commented that the allocations were based on the principle of “equitable distribution” between the riparians.⁴⁰ Israel and Jordan have treated the allocations in the Johnston Plan as the basis for their respective allocations of Jordan River basin water. “In fact, the Johnston Plan became the de facto discussion point and yardstick for all subsequent efforts at developing the Jordan waters.”⁴¹ Despite this recognition, the plan should not be treated as a binding international agreement. The parties to the negotiations were presented texts that differed slightly, so there was no consensus ad idem to a common text. Neither side ratified a text, nor was it registered with the UN Secretariat in accordance with Article 102 of the UN Charter. Furthermore, Syria and Lebanon, which were parties to the negotiations, refrained from declaring that they would abide by the terms of the plan. Nevertheless, in view of the fact that Israel and Jordan each unilaterally declared that they would abide by the allocations of the Johnston Plan,⁴² it could well be argued that these declarations serve as binding unilateral undertakings.⁴³ Dellapenna, and others following him, have posited even further that the allocations of the Johnston Plan could be considered a binding regional convention.⁴⁴

Palestinian Riparian Rights?

A further issue is whether the Palestinian Authority has riparian rights or whether such rights belong only to states. Israel recognized the existence of Palestinian riparian rights in the West Bank in the Oslo agreement, where it states, that such rights “will be negotiated in the permanent status negotiations.” No argument appears to have been made denying in principle that the Palestinian Authority has riparian rights, although the wording does not refer explicitly to the waters of the Jordan River basin.

Israel–Jordan Peace Treaty

Water issues played a major role in the negotiations on the Israel–Jordan Peace Treaty, which states:

Article 6

With the view to achieving a comprehensive and lasting settlement of all the water problems between them:

1. The Parties agree mutually to recognize the rightful allocations of both of them in Jordan River and Yarmuk River waters and Araba/Arava ground water in accordance with the agreed acceptable principles, quantities and quality as set out in Annex II.
2. The Parties... jointly undertake to ensure that the management and development of their water resources do not, in any way, harm the water resources of the other.⁴⁵

Annex II to the peace treaty, which deals with water issues, stipulates the quantities to be allocated to Israel from the Yarmuk River and to Jordan from the Jordan River. Israel and Jordan also agreed to develop plans for the utilization of the waters of the lower Jordan River. “The arrangements between the two countries relate only to the waters of the Jordan River south of Lake Tiberias.”⁴⁶

Israel and Jordan also agreed to “cooperate in finding sources for the supply to Jordan of an additional quantity of 50 MCM/year of water of drinkable standards.”⁴⁷ A disagreement arose over the interpretation of this provision, but it was apparently resolved at a 1997 meeting between King Hussein and Prime Minister Benjamin Netanyahu whereby Israel agreed, as “an interim measure,” to supply Jordan with an additional 25–30 MCM a year from Lake Kinneret.⁴⁸

One writer comments that the weakness of this treaty is that “the settlement remains bilateral and thus conditional upon behaviour of the other riparians (especially Syria), with whom water agreements are still lacking.”⁴⁹

Israel–PLO Oslo 1993 Declaration of Principles and 1995 Interim Agreement

The Israel–PLO Oslo 1993 Declaration of Principles refers to:

Cooperation in the field of water, including a Water Development Program prepared by experts from both sides, which will also specify the mode of cooperation in the management of water resources in the West Bank and Gaza Strip, and will include proposals for studies and plans on water rights of each party, as well as on the equitable utilization of joint water resources for implementation in and beyond the interim period.⁵⁰

The 1995 Israel–PLO Interim Agreement set up a permanent Israel–Palestinian Joint Water Committee (JWC) whose functions included “consolidated management of water resources.” The Agreement stated the principle that “Israel recognizes the Palestinian water rights in the West Bank. These will be negotiated in the permanent status negotiations and settled in the permanent status agreement relating to the various water resources.”⁵¹ The parties agreed on:

Maintaining existing quantities of utilization from the resources, taking into account the quantities of additional water for the Palestinians from the Eastern Aquifer and other agreed sources in the West Bank as detailed in this Article.⁵²

The agreement also states that: “Both sides have agreed that the future needs of the Palestinians in the West Bank are estimated to be between 70–80 MCM/year.”⁵³

Israel agreed to supply additional water to the Palestinians and the Palestinians were to develop further sources “from the Eastern Aquifer and other agreed sources in the West Bank.”⁵⁴ The parties also agreed average annual estimates for “the existing extractions, utilization and estimated potential of the Eastern, North-Eastern and Western Aquifers.”⁵⁵ The Israel–Palestinian JWC continued its functions even during times of armed hostilities between Israel and the Palestinians, this despite the fact that most other agreed avenues of cooperation ceased to function.

Projects that have been implemented

Despite the absence of any agreed-upon unified plan for the basin, Israel, Jordan Syria and, to a lesser extent, Lebanon proceeded to carry out unilateral water diversion projects. In the case of Israel and Jordan, the projects were, on the whole, within the parameters set out in the Johnston Plan.

The Israel National Water Carrier

From the early 1950s, Israel began planning to divert water from the Jordan River to the southern areas of Israel. The original plan was to commence the diversion from the upper Jordan River at the Bnot Yaakov Bridge and to store the water in the Bet Netufa valley. In 1953, Israel commenced diversion works near the bridge. Syria objected that the work was being carried out in the demilitarized zone, the Syrian legal position being that the zone was not sovereign Israeli territory and Israel had no right to undertake engineering activities there. The Israeli legal position was that the territory was under its sovereignty but subject to the demilitarization regime agreed to in the 1949 Armistice Agreement with

Syria. The UN Security Council, without determining the legal position as to sovereignty, called upon Israel to cease its diversion works and Israel complied.

Israel then changed its plans and proceeded on the basis that the water would be pumped from the Kinneret, which would serve as the storage area. This change of plans necessitated pumping the waters up from the lake, whereas under the original plan the water would have flown by gravity. The Kinneret water was too saline to be used, but this problem was solved by Israel diverting the surrounding saline springs and discharging them into the lower River Jordan, below the outlet from the lake.

The Israel National Water Carrier, which began operating in the spring of 1964, pumps some 400 MCM annually from the Kinneret and distributes it throughout Israel by way of links with regional water schemes.⁵⁶ The Israeli legal position has been that the amount of water it diverts from the lake is within the quantities envisaged in the Johnston Plan.⁵⁷

The Jordanian East Ghor Canal

In 1958, the Jordanian government commenced work on the East Ghor canal project to divert waters of the Yarmuk to the Jordan Valley. The river waters are diverted into a tunnel near Adassiyah, then discharged into an open channel (the King Abdullah East Ghor Canal), which runs parallel to the Jordan River on its eastern bank. The canal is some 110 km long and is the principal source of irrigation water for the Jordan Valley lands. The plan was for a parallel canal project along the West Ghor but “Jordan also failed to build the West Ghor canal in the West Bank before 1967.”⁵⁸ As a consequence of the 1967 war, Jordan lost control of the West Bank, and since then there has been no progress on the plan for a West Ghor canal.

***De Facto* Jordanian–Israeli Understandings on Uses of the Yarmuk River**

From the late 1970s, Israel and Jordan held meetings on the use of Yarmuk waters.⁵⁹ These semi-confidential talks were held at Adassiyah, in the presence of officers from the UN Truce Supervision Organization (UNTSO).⁶⁰ The talks continued until the signing of the Israel-Jordan peace treaty in 1994 and, in line with the Johnston Plan, centered on the issue of how much water Israel was entitled to receive from the Yarmuk River during the summer season.

Syrian Storage on Golan Heights

Since the 1980s, Syria has been building a series of small-to-medium-size dam development schemes on the Golan Heights. The Syrian government has also constructed some 25 small dams on the tributaries of the Yarmuk, which currently supply the population of southern Syria with some 250 MCM of water.⁶¹ These dams have caused a decreased flow in the Yarmuk and in the wadis leading down to the Kinneret. According to one expert, Syrian use of the river waters has doubled since the 1970s and at present, “the Yarmuk flow, before its partial diversion into the KAC [King Abdullah Canal], reaches 270 MCM/yr.”⁶² The Syrian diversions, which are larger than those allowed under the Johnston Plan (90 MCM/yr), have led to the decreased utility of the El Wahda dam.

Lebanese Withdrawals from the Hasbani River

In 2001, press reports described Lebanese intentions to build pumping facilities at the Wazzani Spring on the Hasbani River, to enable the water to be used for local use. The plan entailed pumping some 10,000 cubic meters of water per day from the springs and conveying it via a 16-inch pipe to a reservoir near the village of Taibe, six miles to the west of Wazzani. According to the plan, up to sixty villages in the border district were to be supplied with drinking water.⁶³ Israel objected, claiming such action would substantially reduce the flow of the Jordan River.⁶⁴ Apparently the quantities withdrawn have been limited to the amounts agreed to in the Johnston Plan, as there does not seem to have been any further official Israeli reaction.

The El Wahda (Unity) Dam

In 1980, Jordan requested World Bank financing for the building of a dam on the Yarmuk River, close to the intake of the of the Kind Abdullah Canal. Israel was apprehensive that the project would affect its share of Yarmuk waters and also wished to raise the issue of the allocation of Yarmuk waters to the West Bank. The government notified the World Bank that “Israel is a lower riparian state on the river, and under international law is entitled to its share of the waters of the river. Under these circumstances Israel objects to any World Bank participation in the project until an agreement is reached with Israel as to the sharing of the waters.”⁶⁵ The US diplomat Philip Habib was sent to the region in 1980 by the State Department to help mediate an agreement. Although Habib was able to gain consensus on the concept of the dam, final agreement was never reached.⁶⁶ Jordan reached an agreement in 1987 with Syria to build the dam without World Bank financing.⁶⁷ The project was inaugurated in 2004 and is now in operation,

with a total storage capacity of 110 MCM, approximately half the original planned capacity. The operational capacity of the dam is at present, only 70–80 MCM.

In the past, during the winter months, Israel diverted, into Lake Kinneret, excess Yarmuk floodwaters that would otherwise have flown into the bed of the lower Jordan River and from there to the Dead Sea.⁶⁸ The Israeli right to utilize such excess waters was recognized in the Israel–Jordan Peace Treaty.⁶⁹ As a result of the completion of the dam, there will be little, if any, release of winter floodwaters and in practice the question of storage of such winter floods is no longer relevant.⁷⁰

Water Issues in Future Negotiations

Water Quality

Since the early 1950s, during the numerous attempts to utilize the waters of the Jordan basin (mainly from the upper course) of the Jordan River and from the Kinneret, it seems that the negotiators were unaware of a critical characteristic feature of these waters, i.e., their salinity and their unusual chemical composition, which are factors that limit their exploitation.

There are two distinct groups of processes which could cause quality degradation of water bodies—geogenic processes, generated by natural, mainly regional-geological factors; and anthropogenic processes, which are the result of human activities such as pollution.

The quality of most waters in the Jordan River basin is affected and endangered by geogenic salinization and deterioration. These processes were triggered by intensive water exploitation which altered established natural equilibrium between different water bodies.

Lake Kinneret, the major water resource in the area, is heavily affected by deteriorating processes of the geogenic type caused by enhanced inflow of relatively high-salinity thermo-mineral water discharging from springs and seepages located on- and offshore its the western side (the Tabigha, Fuliya, and Tiberias Hot Springs) and from submarine saline springs flowing out on the bottom of the lake. Since the drought years of 1999–2001 and in the hydrological year 2007-08 the salinity of the water in the lake has continued to rise, also due to enhanced evaporation.

The sources of salinity seeping into Lake Tiberias have been studied since the 1950s. Most scholars agree that the saline waters emerging around the lake, on its

bottom as well as in other parts of the Jordan Valley, are related to the subsurface occurrence of ancient, highly concentrated pressurized and hot brines (the so-called “Rift brines”), now overlain by fresh water that is diluting the brines. It was suggested that the saline waters around the lake and elsewhere in the Rift are the result of dissolution of solid salts encountered in salt domes buried south of the lake and elsewhere in the Jordan Valley. Most scholars agree that pumping the lake water and fresh groundwater in the Eastern Galilee would reduce the pressure exerted by the freshwater component over the brines and would consequently enhance the ascent of brine and thus the salinization of groundwater. Upflow of these brines always occurs along the major geological faults, which outline both margins of the Jordan Valley. The opposing argument is that active groundwater flow flushes passive brines and produces the saline springs. Therefore, the pumping of groundwater would restrain the salt flux and reduce the salinity of the lake. Upflow of brines occurs in most parts of the Jordan Rift Valley, between Lake Tiberias and as far as the Dead Sea, and further south as far as the Red Sea, and seem to be related to similar hydrochemical processes. Obviously, these geogenic processes impose — on all riparians — limitation of water exploitation.

The deterioration of water quality in the area may have regional and local implications. Thus, any deterioration in the existing salinity balance in the Kinneret would be catastrophic for the whole system of water supply in Israel. It will also bear on Israel’s commitments for water transfer as defined in the peace treaty with Jordan. In the Jordan Valley, groundwater deterioration by pressurized brines also has political implications. It bears directly on the Israeli–Palestinian dispute over water rights, as the two national entities are riparians to transboundary groundwater basins. In dealing with such disputes, one of the accepted principles is that of equitability. In principle, this is a just approach, but its implementation must take into account the insufficient and very expensive hydrogeological information. If we only consider the case of the Samaria–Bet Shean transboundary basin, then, according to the present proposed borderlines, the Palestinians may be allocated the upstream fresh groundwater, whereas the Israelis will be allocated the waters at the outlets of the basin which are adjacent to the Rift and to related faultlines. These are proven conduits of brine and are already infested by such ultra-saline solutions. Any further development of water resources will result in galloping brine-induced salinization. The possible equitable allocation of volumes and quantities vs. the inequitable distribution of water-qualities and, more so, of potential salinization risks, cannot be regarded as a solution to a water-rights dispute. An equitable distribution should apply to the salinity and to the chemical composition of groundwater bodies. It is obviously inequitable to allocate to one or the other party a share of waters that by their chemical composition are unfit for agricultural or domestic uses. The geographical makeup of Cis-Jordan is such that often the upstream groundwaters are of far

higher quality than those downstream, and this factor must be considered in any equitable distribution. Most research, studies and attempts to define norms and rules have been concerned with distribution of amounts of water and preventing man-made pollution, yet with worldwide increased exploitation of groundwater, the question of man-triggered geogenic deterioration is going to be more and more acute.

Water Issues in the Future Negotiations between Israel and Syria

The relevance of the divergence between the Armistice Line and the International Boundary in relation to water issues came to be stressed during the attempted peace process with Syria where the “need to preserve the Jordan and Hasbani Rivers on the Israeli side of the border” was manifested.⁷¹ “[Prime Minister Yitzhak] Rabin no doubt feared that an actual presence on the lake [Kinneret] would give the Syrians a share of Israel’s only natural freshwater reservoir.”⁷² The Syrian position is that the 1923 boundary is not binding, as it was a boundary imposed on Syria by the former colonial powers Britain and France.⁷³ A counterargument could be made that under the rules of *uti possidetis juris*, former colonial boundaries remain in force unless changed by agreement. Although no explicit reference has been made, by any of the parties, to the rule of *uti possidetis*, the peace treaties with Egypt⁷⁴ and Jordan⁷⁵ adopted the former Mandatory boundaries, as did the UN determination of the Israel–Lebanon boundary.⁷⁶

Rabin apparently agreed to provide US Secretary of State Warren Christopher with a conditional agreement to withdraw to the June 1967 boundary, the condition being that Israel’s other demands on the Golan Heights be met; subsequent Israeli negotiators have not categorically denied or refuted this.⁷⁷ Among Israel’s conditions were control of a strip of land on the eastern shore of the Kinneret wide enough to allow Israeli traffic.⁷⁸ The indirect negotiations with Syria were continuing at press time.

Conclusions

The location of water resources played a role in determining the post-World War I Palestine–Syrian border and presumably will play a part in future negotiations with Syria and Lebanon. In the past, the Johnston Plan served as a basis of understanding between Jordan and Israel; these understandings are now incorporated, to a certain extent, in the Israel–Jordan peace treaty and in bilateral interim arrangements reached between Israel and the Palestinians.

Although Syria and Lebanon are upstream riparians on the Jordan basin, the two countries have alternative water resources and are therefore less dependent on

the Jordan basin for their water supply. For Israel, Jordan and the Palestinians, however, the Jordan basin offers the primary source of water. Until now, the total annual safe yield for these three national entities was approximately 3 BCM/yr. This statement was intentionally put in the past tense because if one considers global warming and climatic changes, then it is clear that this amount will significantly decrease in the future. On the other hand, the demand for water is constantly increasing due to rising living standards, changing economies and natural population growth – as well as, significantly, by the inflow of refugees into Jordan. This leads us to the only possible conclusion that the Jordan basin riparians will shortly face severe water shortage coupled with increased natural salinity. One could justly claim that human factors should be blamed for triggering salinization processes which deteriorate fresh water resources. However, if the water managers in the Jordan basin would have decided to refrain from using “risky” groundwater, the water supply would have had to be reduced by approximately 35 percent of the calculated average yearly safe-yield volume.

Against this background, what are the chances of rectifying the evolving water deficiencies in the basin? The peace treaty with Jordan and the Oslo Agreements with the Palestinians opened the way for reaching binding arrangements on cooperation and joint developments. Despite the prophets of doom, experience has shown that water issues have, in the past, been a catalyst for cooperation rather than for hostilities and we have witnessed ongoing cooperation between water specialists, joint research projects, training and exchange of information. It seems that Jordanians, Israelis and Palestinians understand that international law can offer broad principles, but only negotiations and mutually satisfactory agreements can provide solutions.

Water specialists from the three national entities have reached similar conclusions, namely, that in the Jordan basin all available water resources have been depleted and that there is little chance of finding and exploiting hitherto-unknown resources. The only possibility of solving long-term water deficiencies in the basin is to create and foster regional projects combining energy production with sea-water desalination.

Notes

- ¹ Haim Gvirtzman, *The Water Resources of Israel* (Chapters on Hydrology and Environmental Sciences) (Jerusalem: 2002) [Hebrew].
- ² The report attributes this to Col. Gribbon and adds that Lord Allenby “agreed and pointed out that the river Yarmuk supplied two-thirds of the water of the Jordan.” PRO.CAB 21/153, as cited in Doreen Ingrams, *Palestine Papers 1917–1922 Seeds of*

- Conflict* (New York, 1973), p. 76.
- 3 Ibid., p. 78.
 - 4 Peace Treaty, signed at Lausanne July 24, 1923.
 - 5 Earl Curzon, British Foreign Secretary, to Mr. Vansittart, cable of November 9, 1920, quoted in Patricia Toye (ed.), *Palestine Boundaries 1835–1947*, Volume 3, Palestine–Syria II, Palestine–Transjordan, Archive Editions Oxford (Durham, 1989), p. 109.
 - 6 Gideon Biger, *The Boundaries of Modern Palestine, 1840–1947* (London, 2004), p. 132.
 - 7 Franco–British Convention of December 23, 1920 on Certain Points Connected with the Mandates for Syria and the Lebanon Palestine and Mesopotamia, Article 1.
 - 8 Ibid., Article 8.
 - 9 Final Report on the Demarcation of the Frontier between the Great Lebanon and Syria on the one Side, and Palestine on the Other Side, from the Mediterranean Sea to El Hamme (in the Lower Valley of the Yarmuk) in Pursuance of Articles 1 and 2 of the Convention of Paris of December 23, 1920, penultimate paragraph, quoted in Toye (1989), p. 443.
 - 10 Biger, op. cit., p. 147.
 - 11 Final Report, op. cit., p. 442.
 - 12 In an exchange of notes on March 7, 1923.
 - 13 League of Nations Resolution , May 22, 1935.
 - 14 Agreement of Good Neighborly Relations Concluded between the British and French Governments on Behalf of the Territories of Palestine, on the One Part, and on Behalf of Syria and Great Lebanon, on the Other Part, 1926.
 - 15 Exchange of cables, August 28 and 30, 1922 between Secretary of State for the Colonies to High Commissioner for Palestine, quoted in Toye (1989), pp. 745–746.
 - 16 Decision of the Council of the League of Nations, September 16, 1922.
 - 17 James B. Hays, *TVA on the Jordan, Proposals for Irrigation and Hydro-Electric Development in Palestine* (Washington, DC, 1948), p. XV.
 - 18 Aryeh Shalev, *The Israel–Syria Armistice Regime* (Boulder, 1993), p. 183.
 - 19 Jitzchak P. Alster, “Water in the Peace Process: Israel–Syria–Palestinians,” *Justice*, (September, 1996).
 - 20 Shalev, op. cit., pp. 183–99.
 - 21 Joseph W. Dellapenna, “Designing the Legal Structures of Water Management Needed to Fulfill the Israeli–Palestinian Declaration of Principles,” *The Palestine Yearbook of International Law* 7:63–103 (1992/94), 100.
 - 22 The 1939 Ionides Plan; the 1944 Lowdermill Plan.
 - 23 “UNWRA Special Reports on Jordan,” Bulletin No. 14, UNWRA Beirut, (1956), p. 95, quoted in *American Friends of the Middle East*, 1964; *The Jordan Water Problem, An Analysis and Summary of Available Documents*, *American Friends*, op. cit., p. 69.
 - 24 Aaron Wolf, *Hydropolitics Along the Jordan River* (New York, 1995), quoting a US CIA Report and other sources.
 - 25 There were minor discrepancies between the version of the plan presented to Israel and the version presented to the Arab States.

- 26 Georgiana Stevens, "The Jordan River Valley," *International Conciliation* 506 (1956), 273.
- 27 Report by President Eisenhower to Congress, 1955, on the Johnston negotiations, Department of State Publication 3618, July 1956, quoted in *Peace Process*, Volume 1–2; VII:8.
- 28 Eric Johnston, "A Key to the Future of the Middle East," *New York Times Magazine*, October 19, 1958, quoted in *Peace Process, Regional Projects*, Volume 1–2; VII:10.
- 29 Arab League Resolution October 11, 1955 quoted in *American Friends*, op. cit., p. 50.
- 30 Miriam R. Lowi, *Water and Power: The Politics of a Scarce Resource in the Jordan River Basin* (Cambridge, 1995), p. 108.
- 31 The 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses is not in force and is unlikely to enter into force.
- 32 Shabtai Rosenne, *The Perplexities of Modern International Law* (Leiden, 2004.)
- 33 Melanne Andromedea Civic, "A New Conceptual Framework for Jordan River Basin Management: A Proposal for a Trusteeship Commission," *Colorado Journal of International Environmental Law & Policy* 9: 285–329 (1998), 267.
- 34 Stephen C. McCaffrey, *The Law of International Watercourses, Non-Navigational Uses* (Oxford, 2001), p. 93. Presumably it played an even smaller role before 1948.
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- 36 Charles Bourne, 2002. "Conflicting Views on the Basic Principles of International Water Law," *Legal Aspects of Sustainable Water Resources Management* 9–19, Regional Conference on Water Law, Slavko Bogdanovic (ed.), Yugoslavia Association for Water Law, Teslic, Bosnia and Herzegovina, p. 14.
- 37 ILA Berlin Rules (2004), Article 13(1).
- 38 Sir M. & Partners, "Report on the Proposed Extension of Irrigation in the Jordan Valley London 1951 p. i," quoted in *American Friends*, op. cit., p. 90.
- 39 Sharif S. Elmusa, "Negotiating Water: Israel and the Palestinians," "A Final Status Issues Paper," Institute for Palestine Studies (Washington, DC, 1995) p. 34.
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- 41 Lowi, op. cit., p. 105.
- 42 See, for example, the declaration by Israeli Prime Minister Levi Eshkol, January 20, 1964, 321st Knesset Session, Knesset Records, vol. 38, p. 813.
- 43 The legally binding nature of such a unilateral declaration was recognized by the International Court of Justice in the *Nuclear Tests Case* (Australia v. France), ICJ Reports (1974), pp. 253, 267.
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- 46 Alster, op. cit., p. 15.

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- 69 Israel–Jordan Peace Treaty, Annex II, Art. I(a), (b), (c).
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IRAN UPDATE

Volume 2, Issue 2, 19 April 2006

Essay

Iran and the Global Rise in Anti-Semitism

2006 saw the highest number of anti-Semitic incidents worldwide since 2000, with a twofold increase in physical attacks against Jews from the year before. The two prime events largely responsible for this rise were "the efforts invested by Iran to delegitimize Israel by denying the Holocaust, and the Second Lebanon War" according to a new global study by the Kishinev Roth Institute. According to these findings, Iran stands at the forefront of contemporary global anti-Semitism, both as a direct perpetrator and a Hezbollah's primary patron. This is just another indication that the threat emanating from Tehran is unconfined, ideological, and global in its reach.

Iran's use of anti-Semitic expression took an expansive turn throughout the course of the past year. Most egregiously, the Iranian government provided sanction and a platform to the worst kinds of anti-Semitic "scholars" from all over the world and turned denial of the Holocaust into a state-sponsored endeavor. The December 2005 Holocaust denial conference convened by the Iranian Foreign Ministry was the most blatant of these acts. The Roth Institute report notes, "Iran's destructive intentions have been reinforced and sustained by Western Holocaust deniers, some of whom fled to Tehran in order to avoid trials or verdicts in their respective countries and shared their experiences with President Ahmadinejad." Moreover, Iranian government officials regularly use anti-Semitic references and language in their public addresses.

The primary goal of Tehran's manipulation of anti-Semitic prejudices is to undermine legitimacy for the existence of Israel. Iran took another step towards this goal when its Hezbollah proxy unilaterally launched what would later come to be known as the Second Lebanon War. The ensuing and maddening infestation of condemnation of Israel quickly degenerated into anti-Semitic expressions and the furtherance of Israel's political ideology, namely the extermination of the Jewish State.

According to the report, with the "intensification of anti-Israel attitudes in public discourse, it became more common to demand the disappearance of a state depicted as a prototype for crime and destruction and a danger to world peace." In a reinforcing feedback loop, media outlets, Muslim groups, and both right- and left-wing organizations the world over, under the guise of anti-Zionism and anti-imperialism, began to emphasize "the cruel child-killer, allegedly the essence of Jews and Israelis, as well as Nazi-like behavior; which is nothing if not modern expression of classical anti-Semitism and a further vivification of its Holocaust."

More worrying in many respects was the physical violence directed at individual Jews and Jewish symbols during the war and in its immediate aftermath. The most tragic of these incidents was the deadly shooting attack at the Seattle Jewish Federation Center perpetrated by an American Muslim man who claimed that he was "angry at Israel." More violent incidents worldwide were only prevented due to the vigilance of local authorities and heightened anti-terrorism measures. Individual beatings of Jewish individuals on the street, anti-Semitic graffiti, and the desecration of synagogues, however, increased in frequency.

The cumulative effect of Iran's actions and propaganda

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