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Hydro-Politics: Water and Difficult Dialogues on Resources

Abdel Rahman Tamimi

I. Introduction

*W*ater is considered the most important factor leading to instability and conflict in the Middle East region. Recent analyses and reports point to the fact that the problem of water will get much more complicated than current politics can handle. This is primarily because the problem is in conjunction with the natural features of the region: it is dry and desert terrain. Indeed, desert covers 60% of Israel, 70% of Syria, 85% of Jordan, and 90% of Egypt.

The Middle East also has one of the biggest alimentation gaps. Consequently, agricultural expansion to bridge those gaps in the years to come will require large quantities of water, parallel to the highest average of population growth in the world.

To give an idea of the dimensions of the water problem in the Arab world: water requirements are calculated on a minimum basis known as the "Minimum Water Requirement" (MWR), which is 1,000 cubic meters/year (cm^3/yr). The population of the Arab world is presently nearing 235 million. The quantity of available water per person is about 750 cm^3/yr , which is below the MWR. If the population reaches 315 million by the year 2010, then a person's share of water will drop to 575 cm^3 . If the average population growth is 25 per thousand, then the water requirement will reach 295 billion cm^3 by the year 2010, i.e., a deficit of 120 billion cm^3 .

Israel's water crisis in the 1990s constituted the foremost external threat to Arab water security. Israel's inability to satisfy the rising water

needs of its settlements and agricultural projects has led it to try to control neighboring water sources. In addition, the Arab countries face a crisis with Turkey over the water of the Euphrates, as well as with the Ethiopian Nile projects.

The Palestinian-Israeli water problem is tied to Israel's own water problem, on the one hand, and to Israeli political thought, on the other. Israeli political tradition in the area of water policy is confined to three basic axes. The first is the economic dimension, in which the agriculture lobby is distinctly influential. For example, most of those who have held the position of general water commissioner came from agricultural kibbutzim, and while agriculture consumes 73% of the total available water sources, its contribution to the Israeli gross national product does not exceed 3.7%.

The second axis is the Israeli horizontal and urban development in the 1970s, especially following the collapse of the Soviet Union and the absorption of huge numbers of immigrants. These people have come from countries where water shortages are virtually unknown. Consequently, their social activities and domestic habits utilize a large consumption of water not in keeping with Israeli water realities.

The third axis is Israel's conception that the control of water sources by Palestinians carries an implication of sovereignty, especially with regard to the Jordan River and Palestinian water rights.

II. Geography and General Water Situation

The Palestinian Territory covers around 5719 square kilometers of land, plus 220 km² of water. It is located on the east coast of the Mediterranean Sea, west of Jordan and to the south of Lebanon. Israel, on the other hand, covers a total, 20,330 km² of land, plus 440 km² of water, reflecting armistice or cease-fire agreements with Lebanon and Syria, and more recent peace treaties with Egypt and Jordan. The international boundaries between Israel and Palestine have never been settled. The Green Line refers to the boundary established in the General Armistice Agreement between Israel and Jordan on April 3, 1949.

The Palestinian Territory is characterized by limited surface and groundwater resources. The main surface water system in the region is the Jordan River Basin, which begins in three headwaters. The Hasbani River originates in Lebanon and has at least parts of its flow in Lebanon, with an average flow of 138 mcm³/yr. The Dan and Banias (Nahal Hermon in Israel) Rivers originate in the Golan Heights and both flow

into the Jordan above Tiberius Lake, having average annual flows of 245 and 121 mcm^3 , respectively. The Jordan River in sum has an average annual flow of 1300 mcm^3 . Significantly, the Jordan River Basin is considered by international law as an international river, with waters shared by Israel, Jordan, Syria, Lebanon, and Palestine.

The groundwater system in Israel and Palestine is divided hydrologically into seven basins, each of which is subdivided into aquifers. The total annual renewable water from groundwater resources in both countries is 1454 mcm^3/yr , of which at least 679 mcm^3/yr derives from shared aquifers.

The Mountain Aquifer system comprises three sub-aquifers: the North-Eastern Mountain Aquifer Basin (NEMAB), the Western Mountain Aquifer Basin (WMAB), and the Eastern Mountain Aquifer Basin (EMAB). The former two aquifers form part of an international hydrologic system that is shared with Israel. The EMAB has a special status with regard to the Palestinians. Almost 90% of the EMAB lies within the West Bank and is fed by recharge originating in the West Bank highlands. Accordingly, for the Palestinians, this aquifer is considered endogenous and should not be part of any negotiations with Israel over water. However, referring to internationally recognized classifications of trans-boundary aquifers, the EMAB is part of an international system, namely, the Jordan River Basin. The EMAB is hydrologically connected with the Jordan River Basin in some areas and it lies in the upstream portion of the rivers and feeds into the river. The status of this aquifer must be dealt due attention and care, especially when negotiating the Palestinian share in the waters of the Jordan River Basin.¹

The Gaza Strip depends primarily on groundwater for its water supply. This high dependence has led to excessive exploitation of the Gaza Aquifer, which underlies the whole of the Gaza Strip. Studies indicate that 120–130 mcm^3/year is pumped from the Gaza Aquifer compared to 60 mcm^3 of annual natural replenishment. Furthermore, due to its proximity to the coast, the aquifer's fresh water has been increasingly replaced by seawater. Together, this represents a serious threat to the present and future groundwater sustainability in Gaza.²

Wadi Gaza, on the other hand, is the only form of runoff that exists in the Gaza Strip. The Wadi is 160 km long and 1.5–3.0 m depth in some areas. The Wadi is considered a trans-boundary watercourse with Israel, as it originates in the Hebron Mountains in the West Bank, crosses the Green Line passing through Israel, then crosses the ter-

ritory of the Gaza Strip to eventually reach its final destination, the Mediterranean Sea. Israel, which lies midway on this Wadi, has been constructing dams and water traps that result in diminishing the runoff inside the Gaza Strip. Currently the Wadi has zero runoff. Furthermore, it became a waste disposal site and an environmental and health hazard.³

III. Israeli Water Policy and Practices: Impact on Palestine's Development

A great deal has already been written about the historical evolution of the Arab-Israeli water conflict, beginning in the early 1900s, with the overwhelming majority of authors and researchers agreeing that water has always been considered an important strategic element in terms of Israeli policies, plans, and regional development. Many would state that the roots of the Arab-Israeli water conflict can be traced back to the Sykes-Picot Agreement. Under this document, which divided the regions of the Middle East between British and French control, no direct mention was made of water rights. The Sykes-Picot Agreement (1916) would most certainly have left the watersheds in the region divided in a most convoluted manner: the Litany and Jordan headwaters just south of the Huleh region would have come under French control, while the Lake Tiberius area would have been split into two, with one part coming under international control and the other under French control. The Yarmouk Valley, meanwhile, would have come under both British and French control, while the lower stem of the Jordan River would have found itself under international control on the West Bank and British control on the East Bank.

Throughout the 1930s and 1940s, the West further manipulated the affairs of the Middle East in order to first control the resources of the region and then to create a Jewish homeland in an area long considered central to Arab nationalism. However, despite having been promised a "national home" by the Balfour Declaration of 1917, the Zionists were displeased with the land and water resources granted to the Jews by the British in 1919. Consequently, they embarked upon acquiring land as Israeli property in order to promote agricultural colonization based on Jewish labor.

The following sections of the essay summarize how Israel's policies and plans were centered on the region's water resources, and what impact these policies have on the status of, and prospects for, Pales-

tine's development. This will be done with reference to three major periods in time: 1948–1967, 1967–1992, and finally 1992 to the present.⁴

A. Between 1948–1967

A special United Nations Committee on Palestine provided evidence showing that Israelis owned only 7% of the land prior to the establishment of the state of Israel in 1948, whereas following the creation of the state, the percentage rose to 60%. Also noteworthy is the fact that following the establishment of the state, the main objective of the water plan was to divert as much water as possible outside the Jordan River Basin into a central conduit leading through the coastal plain up to the northern Negev. Since 1955, Israel has tapped into the WMAB. The National Water Carrier, which was first operated in 1964, was consequently the outcome of many years of planning, the first stages of which were implemented in 1948.

B. Between 1967–1992

Between 1967 and September 1992, the utilization of groundwater within the Occupied Palestinian Territories was governed solely by Israeli legislation and military orders. Today it relies on the three aquifers comprising the Mountain Aquifer, which combined provide approximately 40% of Israel's water supply. Of the total of some 679 mcm/yr of water annually available from the Mountain Aquifer, Israel currently uses about 483 mcm/yr, while the Palestinians are limited to about 118 mcm/yr. It is estimated that another 78 mcm/yr may be available after further exploitation in the Eastern Aquifer. Due to the fact that the Palestinians have consistently been denied access to their share of the Jordan River waters, and the massive imbalance in terms of current water-use rights, there is a huge imbalance in water consumption. The Palestinian domestic per capita consumption of 35–80 l/day is far below the standard established by the World Health Organization (WHO), i.e., a minimum of 100 l/day, while Israeli per capita consumption exceeds 300 l/day. Israel, it should be mentioned, has additional sources of fresh water. As well as the 600 mcm³/yr of water from the Jordan River it is currently utilizing, it also has access to water originating from another five groundwater aquifers located within its territory. As to the Palestinians' access to water, up until 1995, only a very few drilling and extraction licenses were granted to enhance the

supply within Palestinian communities, which meant that the natural increase in water demand due to population growth and industrial and agricultural expansion had to be satisfied from the wells that had already existed prior to the occupation.⁵

On the water services level, the existing water supply networks in almost all the West Bank and Gaza Strip are old, with some dating back more than 50 years. During the last 34 years of occupation, no planned maintenance or rehabilitation took place due to the limited financial and technical capacities of facilities of the local authorities that were in charge of water services. Additionally, Israel is the one that grants permission to conduct maintenance work. This situation has led to high loss percentages through pipe leakage, as unaccounted for water reaches a value of 50% in some of the municipalities.

Finally, and most importantly, during the past years Israel has developed its technical and legal knowledge and capacity in the field of water resources management and regulation. The Palestinians, on the other hand, had limited opportunities to develop similar capacities. The range of military orders and restrictions imposed on the Palestinians concerning the development of water resources contributed to the creation of a serious asymmetry between the parties.

C. Between 1992 and the Present

After long years of struggle, the Palestinians and Israelis began negotiations formally in 1992. One aim of the Israeli-Palestinian negotiations has been to establish a Palestinian interim self-autonomy that would not exceed three years, and that would lead to a permanent settlement based on U.N. Security Council Resolutions 242 and 338. Within the framework of the Middle East Peace Process, the government of the state of Israel and the Palestinian Liberation Organization (PLO) signed the "Declaration of Principles" (DOP) in September 1993. The DOP was the first initiative showing the willingness by both parties to put an end to the decades of confrontation and live in peaceful coexistence. The "Gaza-Jericho" Agreement was signed between the PLO and the state of Israel regarding the autonomous rule of the Palestinian Authority (PA) in Jericho and the Gaza Strip on May 4, 1994.

In 1995, the government of the state of Israel and the PLO entered into an interim agreement on the West Bank and Gaza Strip. Both parties showed a desire for putting into effect the DOP. They also reaffirmed their recognition of mutual legitimacy and political rights. The

water situation was among the contentious issues that were delayed until the final status negotiations. Only temporary solutions were offered for the water crises in Palestine within the interim period. To date, only minimum progress has been achieved to fulfil the promised commitments.⁶

On 30 April 2003, the United States presented the “road map” for peace in the Middle East to Israeli Prime Minister Ariel Sharon and newly confirmed Palestinian Prime Minister Mahmoud Abbas, with the intention of solving the conflict between Israel and the Palestinians. Together with the European Union (EU), the U.N., and Russia, the U.S. defined the road map destination as “a final and comprehensive settlement of the Israel-Palestinian conflict by 2005.” The settlement negotiated between the parties would (they hoped), “result in the emergence of an independent, democratic, and viable Palestinian State living side by side in peace and security with Israel and its other neighbours.”

During 2003, Israel commenced the construction of a “separation fence,” designed to cut the access of people in the Occupied Palestinian Territories. This fence, which follows the 1967 Green Line, crosses into Palestinian land by up to 6 kilometres in places—and restricts access by landowners from farming their own land. On completion it will entirely encircle the West Bank. The West Bank and Gaza will not be able to form a viable sovereign state.⁷

IV. Description of the Causes of Jordan River Basin Crises

It is necessary to have a precise idea of the causes of the water crisis afflicting the area. When looking at the Jordan Basin as a whole, the first element that strikes the observer is undoubtedly the natural water scarcity characterizing the area. This extreme paucity of available resources, both of surface water (Jordan, Yarmuk, minor tributaries) and underground water (Coastal Aquifer, Mountain Aquifer, and so on) represents the first fundamental cause of the regional water crisis. In addition, water resources are asymmetrically distributed among riparian states, and per capita consumption levels are extremely variable. Two states in particular, Syria and Lebanon, while being dependent on Jordan water sources on a local basis, have huge available water reserves in the remaining part of their territories (the Litani River in Lebanon, the Euphrates and Oronte in Syria). This represents a potential solution to their present-day water crisis, whereas Israel, Jordan, and the Palestinian Territories are entirely dependent upon the

scarce resources of the Jordan Basin. Even inside this smaller group, there are significant differences relating to water consumption levels and availability. Israel, for historical reasons, benefits from preferential access to the resources of the Basin (Jordan, Yarmuk, West Bank aquifers) and is the sole riparian area where water consumption levels are comparable to those of Western countries. Yet it is not only a matter of control over resources, but also of efficient use and investment in modern water technologies and infrastructure. On this specific aspect, Israel can teach important lessons, not only to its regional partners, but also to many industrialized countries.

The second striking element is the centrality of agriculture in the economies of all the countries in the area. As a matter of fact, agriculture absorbs 67%–95% of the available water resources in the Basin. The regional water crisis, then, is not only a matter of natural scarcity, but also of allocation of available water resources in favor of water-intensive activities with limited economic value. The choice of adequate, water-saving crops adapted to arid climates could represent an important step in reducing consumption levels.

The third significant element in the water crisis is the persistence of high demographic trends characterizing all riparian countries. As the demand for water increases with population growth, the crisis becomes more intense and compelling.

The allocation to co-riparian underpinning the Johnston plan of 30 September 1955 is annotated below.

Table 1. Compiled different versions of Johnston plan (Phillips et al., 2006)

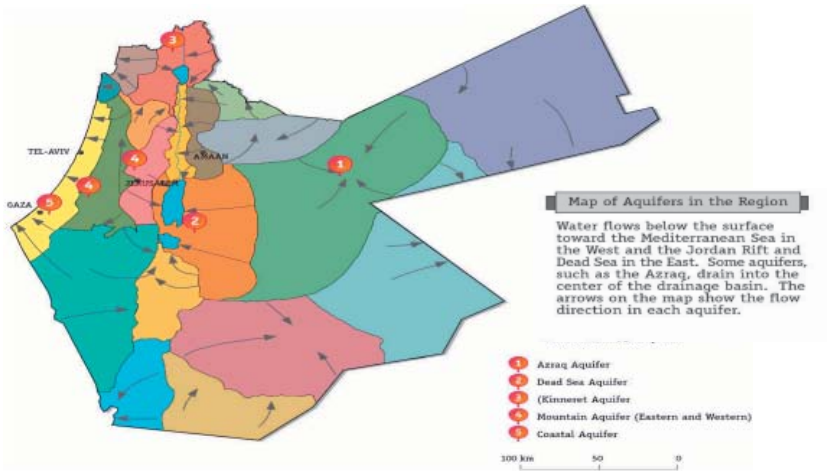
Country	total	Jordan river	
		Diversion	stream depletion
Lebanon	35	35	23
Syria	132	132	93
Jordan	720 ¹	447	477
Israel	616 ²	466 ³	463
Total	1503	1110	1056
Saline water		28	28

¹includes 243 mcm of local water

²includes 150 mcm of local water

³may be larger as long as stream depletion values govern

Table 2. Water Demand in the Region by 2020.



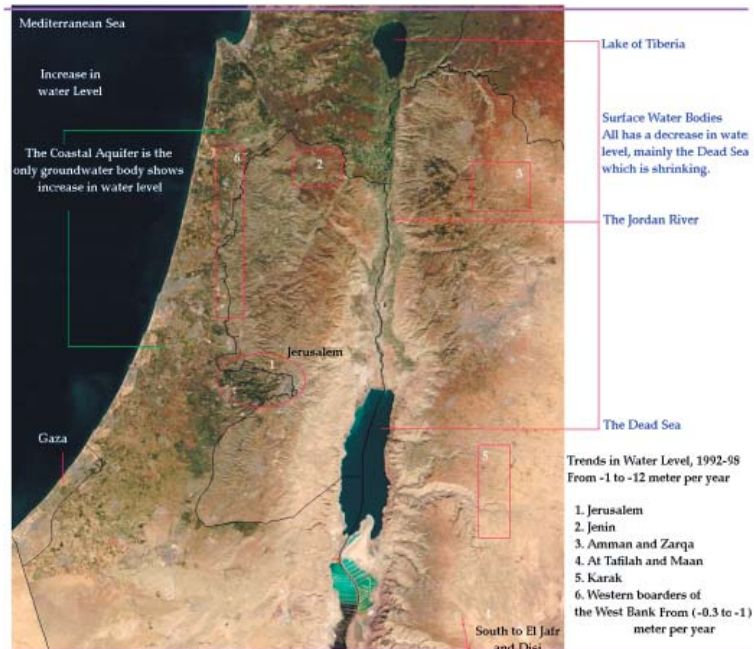
Population 24 M
Demand 5.1 BCm³/Year

(Jordan, Palestinians, Israel)
2.6 BCm³/Year Agricultural
2.1 BCm³/Year Domestic
0.4 BCm³/Year Industrial

Resources 5.1 BCm³/Year

1.1 BCm³/Year Recycled effluents
2.65 BCm³/Year Natural resources
1.35 BCm³/Year (NEED TO BE DEVELOPED/DEFICIT)

V. Summary of Water Resources in Dispute



VI. Description of Water Conflict

A. What History Can Teach Us

The question now is what are the human dynamics and political choices that have led to the present situation? We don't have enough space here to fully discuss the complex role played by water resources in the long history of the Holy Land. What we can do is attempt to acquire some "useful lessons" from the experience of interactions among riparian states. First of all, access to, and control over, the water resources of the Basin have historically constituted a fundamental question for the peoples of the area, and figured highly in the political agenda of all the leaders over time. This is true for France and Great Britain, which immediately after World War I tried to include the most important water sources of the Basin inside the borders of their respective "Mandates." This is true for the Zionist movement, which was aware that the settlement strategy of Jewish communities in the semi-desert land of Palestine couldn't succeed without an adequate amount of water resources for agriculture. And this is true as well for the Arab populations living in Palestine at that time, which repeatedly expressed their concern over the establishment of new communities in a water-scarce land, fearing it would place a huge burden on their own future prospects for economic development. In the same way, during the 1950s and '60s, all Basin states undertook huge efforts to unilaterally exploit the portion of Basin resources under their control, in an attempt to grant themselves a basis for the development of their economies. These contrasting efforts inevitably resulted in a drastic rise in regional tension, as in the case of the digging of the East Ghor Canal by Jordan or the construction of the Israeli National Water Carrier, which was a crucial project for the consolidation of the young Jewish State (in reaction to which its Arab neighbors elaborated the well-known deviation plan of the Jordan River springs).

Secondly, the water issue has always been interlinked with other core issues of the Arab-Israeli conflict, such as the recognition of the Jewish state, the rights of the Palestinian people, borders, settlements, and the reintegration of refugees. Despite the importance of the water issue in the perceptions of the parties involved, water itself has never been the only cause or the direct target of the military confrontations that occurred in the history of Middle East conflict. As a matter of fact,

water has acquired a strategic value because of the general context of conflict, not vice versa.

Finally, it is worthy of further notice that the parties were nevertheless able to recognize, on specific occasions and under certain conditions, the important potential for cooperation intrinsically connected to the water issue. The most significant among these conditions seems to have been the active involvement of a third party.

In conclusion, during all the pre-Madrid period, before the beginning of the peace process in the area, any development of inter-state cooperation regarding water resources was hampered by the existence of a radical conflict involving fundamental political issues, such as sovereignty over territory and mutual recognition—without a strategic commitment by the parties in favor of peace and mutual recognition. The occasional low-level technical cooperation on water issues contributed to *détente* relations between the opposing parties only in a very marginal way.

B. Bilateral Negotiation and the Main Claims of the Parties

From this perspective, the launch of the Peace Process at the beginning of the '90s has represented a major turning point. The process laid the foundation for a mutual recognition of the needs and rights of the parties, thus unlocking a dialogue on the whole of the historical contentious issues, including that of water resources.

On the Israeli-Palestinian track, the Madrid Process led to the full recognition of Israel by the PLO and, at the same time, to the recognition of the rights of the Palestinians in the field of water resources. The signing of the Taba Agreements in 1995 marked a significant development, although the nature and measure of these rights is still to be determined. Is it a "right to a certain amount of resources" or a recognition of "sovereign rights" over them? The settlement of this issue has been put aside for the moment, and will be part of the comprehensive package defining the final status of the Palestinian Territories. In the meantime, a partial reallocation of the resources in favor of the Palestinians has been accomplished, while the PNA has agreed to take part in joint management activities with Israel.

The core issue at the heart of talks on the Israeli-Syrian track of the Peace Process was the possible handing over of the Golan Heights. Talks came to a standstill just when a solution to the water conflict was at hand, based on the formula "restitution of land to Syria versus Syr-

ian guarantees on usage of water sources" (Banyas springs, Yarmuk, Upper Jordan), upon which Israel is dependent. With the prospect of the reopening of the Syrian-Israeli negotiations, this basic formula should be resumed and further detailed by the parties. They might complement it with a mechanism for joint control of trans-boundary effects of upstream water use, and possibly with rules on joint management of shared resources.

On the Lebanese-Israeli front, after the complete fading out of the historical dispute over the Litani River, tensions and concerns have resurfaced over potential negative trans-boundary effects of Hasbani River use on the Lebanese side of the border. So far, Lebanon has chosen not to discuss any form of joint management of the river, with the complete normalization of diplomatic relations with Israel as a precondition for cooperation in the field of water. This suggests that a serious negotiating effort on Israel's "Northern Front" could greatly contribute to the solution of the pending water issues. The achievement of the single and most important diplomatic success in the region, namely the Peace Treaty between Jordan and Israel (which includes an important chapter on partition, and joint management and development of shared water sources), was indeed fostered by the absence of significant connections between the water conflict and other potential divisive issues (such as mutual recognition, border disputes, or the refugee problem). This allowed the negotiating teams to concentrate on the solution to the water conflict without any "interference" from other items on the agenda, and to eventually reach a mutually beneficial compromise.

The Peace Treaty reaffirms the fundamental principles of equitable use, no harm, joint management, and joint development through the institution of a Joint Committee charged with the task of elaborating plans and proposals for the solution of the water problem in the long term.

C. Four Lessons Learned from Peace Talks

While bilateral talks focused on the most pressing issues of concern to single pairs of countries, the multilateral track was conceived by the architects of the Peace Process as an opportunity to look at the future of the Middle East as a unitary region, with the aim, *inter alia*, of elaborating sustainable solutions to the long-term problems of protection and development of the regional water potential. The Multilateral Working Group on Water Resources was created as one of the five

working groups that constituted the architecture of the multilateral talks. It met several times between 1992 and 2000. Unfortunately, the progress of talks in this group was undermined by a series of obstacles of an intrinsically political nature. The most striking problem was the refusal by both Lebanon and Syria to take part in the meetings, which limited the scope of potential cooperation to only three countries and didn't allow it to consider the entire Jordan Basin system, including its tributaries and springs.

In addition, each party showed different priorities on the items to be included in the multilateral agenda. Israel tried to convince its partners to focus on the elaboration of plans to optimize the use of existing water resources, and eventually to resort to alternative sources (e.g., via desalination).

On the other side, Arab states—the Jordanian and Palestinian delegations in particular—strove hard to include the highly political questions of redistribution of available water resources and the definition of water quotas to be attributed to each riparian state, considering them preconditions to any form of technical cooperation. Again, the old problem of the interaction between “low politics” (such as technical cooperation in the field of water) and “high politics” (in which the determination of water rights is connected with the fundamental problems of statehood, borders, and refugees) resurfaced in the context of the multilateral meetings, *de facto* blocking progress. It is nevertheless necessary to recognize that a limited number of initiatives originally elaborated and discussed in the context of the multilaterals were later added to the agenda of bilateral peace talks, as the parties agreed to institutionalize their cooperation. One example is the project of a canal from the Mediterranean to the Dead Sea, which was later developed by Israel and Jordan on a bilateral basis after the signing of the Peace Treaty.

In conclusion, the multilateral initiatives have indeed played a pivotal role in keeping the dialogue among the parties alive. Regardless, it is impossible to achieve decisive results without courageous and even painful acts of political will that demonstrate the parties' commitment to attain a comprehensive and lasting peace.

1. The Bilateral Negotiations

The essence of the bilateral rounds of talks about water is contained in Article 40, within the framework of the general Palestinian-Israeli

agreement signed in Taba on September 18, 1995. This article contains basic points and headings that might prove useful for future action, but it has no bearing on mechanisms for a radical solution to the problem. That is why what has been achieved in Article 40 contains a number of positive points, provided these are implemented according to the Palestinian understanding of them. However, a great divergence exists between the Israeli and Palestinian understanding of the agreement, which, in certain clauses, are diametrically opposed.

The following table shows the extent of the discrepancy between the two sides, even concerning basic issues:

Subject	Degree of Clarity in Agreement	Israeli Understanding	Palestinian Understanding
Water rights	General and ambiguous	To be negotiated	Water rights are fixed
Water prices	Unclear	Commercial basis	Not crystallized
Function of joint committee	Complicated details	Has extensive powers	Has limited powers
Responsibility for sources	Unclear	Israeli	Palestinian
Responsibility for supply	Clear	Joint	Joint-Palestinian

Thus, the lack of clarity is among the obstacles to the implementation of the basic agreement. In addition, the Article does not provide for a mechanism leading to a total resolution of the water problem. It is also an escape from basic issues, such as the definition of the meaning of "rights" and "control," nor does it refer to the problem of the Jordan River.

Furthermore, a basic drawback of the Agreement is the fact that it retained the formulation of the Gaza-Jericho agreement, signed in August 1994, which, from a technical perspective, has a bad reputation among Palestinian experts. This is due to several reasons: water allocation for settlers stayed as is; the water sources in the Gaza Strip remained subject to available information on the water of settlements; and the water supply problem continued to be confined to a commercial dimension based on the concessions for the Israeli water company.⁸

2. The Multilateral Negotiations

The formation of a water committee within the framework of multilateral negotiations attests to the importance of this subject in bolstering the peace process, as well as in achieving people's aspirations to comfort and economic prosperity in the region.

Progress in multilateral negotiations is directly connected with progress on the bilateral track. This is especially so because, according to Palestinian understandings, the issue of water is primarily political. Multilateral negotiations are conceived as an academic exercise of technical use, but they lack the competence to advance a solution to the essence of the water problem.

Most of the discussions of the water committees have, so far, been confined to a technical framework, revolving around four subjects: the means for the exchange of technical information among the countries of the region, the means for developing water resources and water administration, regional cooperation, and joint administration.

Their technical nature notwithstanding, it should be noted that the Palestinians view multilateral negotiations as an acceptable procedure from a psychological perspective, because they entail sitting together with other parties and arriving at a mutual understanding. The absence of Syria and Lebanon from these talks, however, has hindered this understanding. Thus another formula has to be found that can be updated to ensure the participation of both these countries. Moreover, an update of the multilateral agenda will help extricate them from their academic nature in order to tackle problems of essence.

VII. The General Framework for Negotiations over Water in the Final-Status Talks

What gains or losses that have been achieved through this Agreement are immaterial at this point. What is important now is to find a general framework for negotiations about a final settlement for the problem of water. That is why it is necessary to lay down the main components of a Palestinian strategy for negotiations in the final stage, before the delineation of any technical framework:

- The issue of Palestinian water rights, especially regarding the Jordan River, is one of political sovereignty, and a major feature of a future state. It is not only a question of water shares.

- A solution to the water problem is pressing not only to the Palestinians but to the Israelis as well: they both face a water crisis. Indeed, this is a weak point on the Israeli side. The lack of a solution to the problem constitutes, in itself, a problem for the Israelis (some weak points will be listed later).
- Any agricultural development within the framework of an infrastructure for the Palestinian people is contingent upon the extent of control over water sources.
- No separation, in any form, should exist between negotiations on water sources and distribution systems.
- Negotiations, in any form, should be according to the hydrological distribution of the sources and not according to geographical/political areas.
- The unrestricted determination of present and future water needs of the Palestinian people, taking into consideration the various sociological and economic scenarios.
- The principle of cooperation should be dealt with at a later stage rather than at the beginning of negotiations.

VIII. The General Technical Framework for Negotiating Mechanisms

The shape of a square can form the starting point for a negotiating mechanism over the issue of water. One side represents the future needs in water, agriculture, politics, etc. The second side represents the Palestinian water policy to be adopted. The third side is the principle of sovereignty over land and water, and the fourth, which closes the square, is the capacity for shared cooperation with all other parties on the basis of parity.

From the vantage point of this square, it is easy to visualize the general mechanism for negotiations for final status. It rests on defining the strategic objectives for negotiations over this vital sector. Consequently, the general guidelines, or the “technical guidelines,” for this strategy are as follows:

- To cancel all military orders pertaining to water, as well as the concessions to the Mekorot company.
- To provide a clear and focused definition of the concepts of the agreement.

- The Jordan River is the political border of the state of Palestine and it is a shared and international water source.
- To deal with water sources as one hydrological unit.
- Not to separate the issue of water and other issues, such as the environment and natural resources.
- Pan independent water policy for each side, and not to integrate the region's water policy as though it were homogeneous.
- To avoid copying ready-made models for the administration of water sources from other parts of the world. Indeed, the major flaw of Article 40 resides in its vagueness and flexibility relating to the commitments expected on the Israeli side, and its preciseness where the Palestinians' commitments are concerned.
- To avoid as much as possible the formation of joint committees.

In light of the above, the following table presents suggestions for a proposal for Palestinian-Israeli negotiations over the major water issues.

	Degree of Commitment	Mechanism
Mekorot concession	Absolute	A timetable for ending the concession
Partnership in the Jordan River	Absolute	With the specification of timetable and quantities
The west and north basin	Absolute	Without timetable
Joint administration	Relative	Definition of specific concepts

In summary, in negotiations it is incumbent on the Palestinian side to talk about principles and not to drown in details of numbers. It should be noted here that we are talking about an independent state, with sovereignty over its national waters, and with the capacity for joint cooperation in what will be defined as international waters.

IX. Conclusion

In the peace negotiation process on the question of the shared water resources in the Middle East, the partners to the dispute will have to give serious consideration to ways of applying the principles of the

Helsinki Rules. These must include a formula of equitable apportionment and eventual joint monitoring, inspection, and control on both sides of the border. A bold and generous water-for-peace plan can not only remove an important obstacle, but can provide a real motivation for peace that will enable the partners to the dispute to solve urgent problems for the social welfare and economic benefit of it. ●

Notes

1. Abusaada 2005.
2. Daibes 2006, Personal communication.
3. Ibid.
4. Daibes 2005, Personal communication; and Tamimi 2003.
5. Daibes 2005, Personal communication.
6. Daibes 2006, Personal communication.
7. Ibid.
8. Mekorot Water Company Ltd.

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