

The Israeli-Palestinian Water Conflict

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The water situation in the Occupied Palestinian Territories (OPT) is critical, and the Israeli government's systematic exploitation of this vital resource at the expense of sufficient access for the Palestinians constitutes to be a major obstacle to a viable two-state solution. Since its capture of the West Bank and Gaza in 1967, Israel has pursued a policy through Military Orders 92 (1967) and 291 (1968) of monopolizing its access to water within the OPT and of routinely denying Palestinians the right to drill wells or repair existing ones. The [Oslo II agreement](#) signed in 1995 between the Israelis and the Palestinian Authority (PA) has, in effect, institutionalized this system of exploitation, while settlements within the OPT and the 700 km (435 miles) wall that stretches *within* the boundaries of the West Bank (henceforth referred to as The Wall) have had the effect of creating conditions on the ground that further exacerbate the Palestinian situation.

The Israeli government views its uncompromising position on water resources as necessary to maintain its security, as Israel has become highly dependent upon the water beneath and upon the land it occupied in 1967, which today constitutes about 60% of Israel's total water supply. [1] According to a study published by the Israeli Ministry of Agriculture in 1989: "It is difficult to conceive of any political solution consistent with Israel's survival that does not involve complete, continued Israeli control of the water and sewerage systems, and of the associated infrastructure, including the power supply and road network, essential to their operation, maintenance and accessibility." [2] In the Israeli government's view, granting the Palestinians a fully autonomous state would dramatically increase the vulnerability of Israel and even jeopardizes its survival. Israelis assert that this water flows naturally westward into their territory and was being developed and used before 1967. [3]

The most important shared water source between the Palestinians and the Israelis is the Mountain Aquifer, which lies under both the West Bank and Israel. Composed of three component aquifers (the Western, the North-Eastern, and the Eastern Aquifers) it is currently the only remaining water resource for the Palestinians and one of the most significant groundwater resources for Israel. Its total average yield is between 679 and 734 million cubic meters per year (mn cu ms/yr) (23,979 and 25,921 million cubic feet). The Israeli government restricts Palestinians' access to no more than 20% of the Aquifer's annual yield. Moreover, Israel not only consumes the remainder of the annual yield, but also consistently withdraws water up to 50% beyond the sustainable yield of the Aquifer for its own usage. [4]

According to a World Bank study, overall Palestinian water extraction from the Mountain Aquifer in the West Bank was 113.5mn cu ms (4,008 million cubic feet) in 2007, compared to 138.2mn cu ms (4,880 million cubic feet) in 1999. Palestinian extraction was further reduced in 2008 to 84mn cu ms (2966 million cubic feet), mainly due to operational problems for some wells and a drop in the level of water table, caused partially by Israeli over-extraction.

The other shared groundwater resource is the Coastal Aquifer, which lies under the coastal plain of Israel and the Gaza Strip and provides a sustainable annual yield of 450mn cu ms/yr (15,892 million cubic feet) for Israel and only 55mn cu ms/yr (1,942 million cubic feet) in Gaza. This resource, however, has been over-exploited and polluted by sewage infiltration in Gaza, making 90-95% of the water it supplies unfit for drinking. Additional groundwater resources in Israel include the Western Galilee and Carmel Aquifers in the north, and the Negev-Aravah Aquifer in the south. The Jordan River is a vital shared surface water resource

that runs through both Israel and the OPT. However, while it supplies as much as 650mn cu ms/yr (22,955 million cubic feet) of water to Israel, the Palestinians have had their access to it obstructed since Israeli occupation of the West Bank began in 1967.

The Situation After 1967

After Israel's occupation of the West Bank and Gaza following the 1967 War, Israeli authorities undertook a number of measures to consolidate control over all the territories' water resources and infrastructure and classified all water-resources data as state secrets. [5] Several military orders were issued in the period immediately following the war, stipulating that, among other things: the Israeli army would have complete authority over all water-related issues in the OPT, that Palestinian construct of any new water installation would require permits from the Israeli military, and that any land and water arrangements existing prior to Israel's occupation would be invalid. Under this new regime, not only the drilling of new wells, but even the rehabilitation or repair of existing wells required a permit from the Israeli army. The same was required for any water-related project, including pipes, networks, reservoirs, wells, springs and even rainwater cisterns. Obtaining such permits should have, in theory, been possible, albeit after lengthy bureaucratic processes. In practice, however, the vast majority of permit applications have been rejected, with only 13 having been granted between 1967 and 1996. Such deliberate restrictions on Palestinian water infrastructure not only limited the Palestinians' ability to sustain their standard of living, but also to develop new wells to accommodate population growth.

Occurring in parallel to this, the Israeli government expanded and developed its own water infrastructure, both within Israel itself and in the OPT. The considerable resources used to develop Israel's ability to extract water located within the OPT, including the Jordan River to which Palestinians are denied access, was also used to provide water to settlements established within these territories. Such measures, occurring in conjunction with systematic refusals to issue permits to Palestinians, have been and continue to gradually reduce the existing yield for Palestinian springs and wells. [6]

Oslo II

In 1995, the Oslo II agreement was signed between the Israeli Government and the PA. Article 40 of the accord contained provisions on water and sewage that provided general but undefined recognition of Palestinian water rights and returned some West Bank water resources and services responsibility to the PA. According to Article 40, the parties estimated that between 70 and 80mn cu ms/yr (2,472 – 2,825 million cubic feet) would be needed for the Palestinian West Bank's 'future needs'. [7]

Article 40's notable directives, include: (1) setting up a five year interim period where a newly formed Joint Water Committee (JWC) would oversee the management of aquifers, with decisions on allocation to be based on consensus between the two parties; (2) allocating specific quantities of the Mountain Aquifer to both parties, with the Palestinian West Bank receiving about one quarter of the amount allocated to Israel and the settlements; (3) providing for interim, extra supplies from new wells and from Mekorot (Israel's national water carrier) of 28.6mn cu ms (1010 million cubic feet) for Palestinian needs.

While the Oslo II agreement was theoretically intended to protect Palestinian water rights, it instead codified inequities that existed in the water relationship between Israel and the Palestinians and provided a framework for further exploitation. [8] For example, Article 40 requires Israeli approval for any proposed PA management measure or infrastructure project. Under the Article 40 regime, the Israeli Water Authority, as the de facto regulator, has, among other things, prevented Palestinians from drilling in parts of the Mountain Aquifer despite growing demand from Palestinian consumers. At the same time, the Israeli government has

increased its own withdrawals from the aquifer to levels above those agreed to in Oslo II. Furthermore, a little over half of the wells denominated under Oslo II as necessary for the West Bank's 'immediate needs' have been developed by the PA. This is mainly attributed to constraints resulting from the occupation, poor governance, financial shortages, institutional weaknesses, and technical problems. These problems are also the reason why, of the three wells that were developed under the 'future needs' allocation, none are currently functional. While the Oslo II agreement was intended to expire in five years, the accord still governs the Palestinian water sector today, ten years after its expected termination. In the meantime, Palestinian water extraction in the West Bank has dropped below the basic minimum level of 118mn cu ms (4,167 million cubic feet) agreed to in Oslo II to 113mn cu ms (3,991 million cubic feet) in 2007. Legal constraints imposed by the authorities as well as the Israeli government's over-extraction have both contributed to this gradual decline. [9]

The Role of the Wall in Securing More Water for Israel

In addition to legislative measures taken by the Israeli government to establish supremacy over shared water resources, the country is also constructing a 700km (435 miles) Wall that physically bars Palestinians from accessing their most fertile and valuable areas of land. Although the Wall was built to enhance security measures, more than 80% of the Wall stands within the boundaries of the West Bank, rather than along the Green Line, which is recognized by the international community as demarcating the border between Israel and the West Bank. According to an October 2009 report by Amnesty International, the Wall's route has been planned in such a way as to prevent Palestinians from accessing areas of the West Bank containing the most vital water sources. [10] The International Court of Justice (ICJ) declared in 2004 that because the construction of the Wall creates "impediments to the exercise of those concerned of the right to work, to health, to education, and to an adequate standard of living" and could result in "de facto annexation" of Palestinian land, the "construction of the wall and its associated regime are contrary to international law" and that the Israeli government is "obliged to cease forthwith the works of construction of the Wall [and] to dismantle it forthwith..." Israel has thus far continued its construction of the Wall despite the ruling of the ICJ, intentionally placing those areas in the West Bank that are most suitable for water extraction on the Israeli side of the Wall and preventing Palestinians from exploiting their own groundwater sources in an effective manner. The Amnesty International report describes the way in which the route of the wall effectively cuts off several Palestinian villages, including Jayyus, Ras Al-Tira, Dab'a, and others, from their water resources. In the case of Jayyus, the Wall's route, which was constructed in 2003, separates the village from all six of its wells, resulting in severe reductions in the villagers' water consumption. [11]

Israeli Water Security

The strategic implications of sufficient and secure access to water have long played an important role in Israel's strategic decision-making. In 1967, Israeli concerns regarding water resources were a significant factor in the country's decision to preemptively attack its Arab neighbors. [12] The water diversion schemes implemented in the 1950s and 1960s first by the Israelis and subsequently by their neighbors resulted in military skirmishes throughout the two decades. Although the extent to which these maneuvers contributed to the 1967 war continue to be debated, most historians agree that, while not the primary factor, hydro-strategic matters were points of concern for Israeli military strategists. After Israel's decisive victory over the Arabs in 1967, the Israeli government significantly expanded into the neighboring West Bank, Gaza, Sinai, and Golan Heights. Water security shaped these "Israeli border extensions [following the war] and the form they took." [13]

The Israeli government justifies and adheres to its uncompromising position on Palestinian water resources, despite international pressure, for several reasons. As mentioned, the Israeli government views security

concerns as preeminent in its dealings with neighboring Arab populations. Granting Palestinians shared control over the Coastal and Mountain aquifers would, for Israeli officials, increase Israel's vulnerability on the issue of water resources to unacceptable levels. This is especially true of the Mountain Aquifer, where it is estimated that "between 80 and 90% of the total subterranean flows in the aquifer originate from precipitation falling on permeable outcrops in the West Bank." [14] A Palestinian state in the West Bank, with autonomy over resources located within its borders, would be in a position to severely impact Israel's ability to access water from the Mountain Aquifer. At the same time, Israeli officials claim that the Palestinians would be likely to mismanage the water resource, leading to excessive pumping, salination, or pollution of the aquifer. An autonomous Palestine would also, conceivably, grant the right of return to the roughly 2.7 million registered Palestinian [refugees](#) in the surrounding countries or, at the very least, to the estimated 1.3 million registered refugees currently living in camps within the West Bank, placing enormous strain on the already scarce water resources shared by Israel and Palestine.

For this and other major reasons, Israel has staunchly resisted calls by the international community, including United Nations resolutions, to withdraw from the Palestinian lands it occupied in 1967. Nonetheless, all of official proposals for withdrawal from the West Bank and Gaza that have been issued by the Israelis have been conditioned on Israel's continued dominance of the Coastal and Mountain Aquifers. For example, former Prime Minister Menachem Begin of the Likud Party outlined three main principles for Palestinian 'autonomy' in the early 1980s, one of which was "full Israeli control of West bank water resources." [15] Early in the 21st century, Prime Minister Ehud Barak and his successor Ariel Sharon both outlined similar conditions for Palestinian statehood, whereby Israel would have sovereignty over all of Palestine's water resources, the right to regulate Palestinian water extraction and the right to continue expropriation of West Bank and Gaza groundwater for irrigation and domestic use within Israel. Furthermore, under these proposals, Israel would maintain control over the water infrastructure of Palestine, with Israel's present water holdings becoming immune from any future arbitration or adjudication. [16] In a [speech](#) given by current Israeli Prime Minister Benjamin Netanyahu in June 2009, outlining his vision for a potential Palestinian state, no mention of water was made other than to express a possibility for cooperation with the Palestinians in water desalination projects. Nonetheless, Netanyahu's demand that any future Palestinian state remain demilitarized and have no sovereignty over its airspace, along with his hard-line positions on issues such as the settlements, all suggest that he would be extremely unwilling to rescind Israeli government's control over Palestinian water.

Most recently, a peace plan supported by Israeli Foreign Minister and Deputy Prime Minister Avigdor Lieberman, leaked to the Israeli press in late July, suggests a different means to achieving a similar end. In this [plan](#), Lieberman, the founder and leader of the ultra-right Yisrael Beytenu Party, advocates a full disengagement from Gaza whereby Gazans would no longer be reliant on Israel for water and electricity. Such a plan envisages land and sea borders that would be guarded and supervised by European countries, and investments by the European Union in desalination, water purification and electricity generation projects that would give Gaza complete self-sufficiency. This plan represents a continuation of Israeli policies that deny Palestinians the water they are entitled to under international law. European funded desalination and purification schemes would give Israel full entitlement to exploit the Coastal Aquifer located under Gaza. Furthermore, such a plan would help create a permanent economic and political division between the West Bank and Gaza, making Israel's partial annexation of West Bank territory and resources, a policy supported by [Yisrael Beytenu](#), much more feasible.

Conclusion

The Israeli government views its unrestricted access to West Bank and Gazan water as a non-negotiable right, central to its security. Since 1967, the strict implementation of various military orders by the Israeli

occupying forces has amounted to a deliberate policy of denying Palestinians access to water at internationally recognized minimum levels. Moreover, attempts by the Israeli government to create favorable 'facts on the ground', either through settlement expansion or through the construction of a wall that cuts through the West Bank's most fertile areas, is seen as justified within the context of this security-driven agenda. These actions not only flout international law, but contribute to a situation that makes reaching an equitable two-state solution an ever more remote prospect. And while such a position is seen as necessary for maintaining Israel's security, it comes at the expense of regional stability, which could prove to be much more dangerous in the long term for all parties concerned.

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[1] Sherman, Martin. *The Politics of Water in the Middle East: An Israeli Perspective on the Hydro-Political Aspects of the Conflict*. Saint Martins Press (New York: 1999) p 128

[2] Sherman, p 130

[3] Israel Water Authority, "The Issue of Water between Israel and the Palestinians" (March, 2009), p 26

[4] The World Bank, *West Bank and Gaza: Assessment of Restrictions on Palestinian Water Sector Development*, (Washington: 2009), p v [hereinafter World Bank]

[5] Frederiksen, Harald D. "Water: Israeli Strategy, Implications for Peace and the Viability of Palestine" *Middle East Policy*, Vol. X, Number 4 (Winter 2003), p 81

[6] Amnesty International *Troubled Waters: Palestinians Denied Fair Access to Water* (London: 2009), pp 15-16 [hereinafter Amnesty Int'l]

[7] The World Bank, p iv

[8] Amnesty Int'l, p 24

[9] World Bank, p vii