

Laying a Foundation for Joint Management of the Israeli-Palestinian Mountain Aquifer



1998-09-11

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[Photo: The Mountain Aquifer lies under much of Israel and Palestine, including the Judean Hills at Jerusalem.]

The Israeli-Palestinian peace process may have been stalled for several years, but scientists from both sides have continued to work, and have made substantial progress in resolving one of the most divisive issues: the management of shared water resources.

One of the largest freshwater sources in Israel and Palestine is the Mountain Aquifer, a well protected resource that provides about 50% of Israel's drinking water. The geology of this mainly limestone aquifer is complex — water flows in several directions and quite rapidly for an aquifer. But in the main block of the aquifer, the flow is from east to west, which means that the sources are in Palestine and the outlets in Israel. Ninety percent of the catchment lies under Palestine and sixty to seventy percent of the storage lies under Israel's pre-1967 borders.

Political problem

"The result is an aquifer that would be a political problem if it lay under the border of Ontario and Quebec," notes [David Brooks](#), Research Manager at the International Development Research Centre (IDRC) and coauthor of [*Watershed: The role of fresh water in the Israeli-Palestinian conflict*](#). "In Israel and Palestine, the situation is that much worse because of a history that is evident to everyone, but that was complicated by the isolation of researchers from one another in the years after 1967."

According to Dr Brooks, Israelis living inside the nation's 1967 boundaries consume about three times as much water per person for household uses as Palestinians. (Settlers living outside the 1967 boundaries consume about five times as much water.) Water allocation is even more inequitable with almost 50% of Israeli farms under irrigation compared with less than 10% of farms on the West Bank. "But the real issue over water is not whether the Palestinians will get more water," he says. "Israelis will gradually release more water to them. The question is whether they will share management of the water and particularly of the Mountain Aquifer."

Water conference

In December 1992, almost a year before the Oslo Peace Accord, the First International Israeli-Palestinian Academic Conference on Water was held in Zurich. "It was engineered by a couple of courageous Israelis and Palestinians and coordinated by a joint Israeli-Palestinian NGO," says Dr Brooks, who attended as the keynote speaker. After the meeting, Israelis and Palestinians from a range of disciplines — including law, economics, and hydrology — proposed a study to examine the potential for joint management of the Mountain Aquifer. IDRC and the Charles R. Bronfman (CRB) Foundation agreed to fund the project.

At first, "we were working on this very cautiously and gingerly, but once the peace process got started, it gave us a kind of legitimacy," he says. The work was construed as "academic or third track activity complementing more formal political bilateral and technical multilateral tracks." Some of the people who participated in the diplomatic negotiations, especially on the Palestinian side, have served as analysts in this study.

Key institutions

The key institutions on the project team are the Truman Institute of [Hebrew University](#) in Jerusalem and the Palestine Consultancy Group, which includes representatives from [An-Najah National University](#). Almost all of the leading Israeli and Palestinian hydrologists and water management experts have been involved in some way since 1993, says Dr Brooks. The project has also received guidance from "a large number of international experts on water management and international law officials."

Almost from the start, the Israeli-Palestinian team rejected two management options: separation of management activities between the two parties "because it is physically impossible"; and domination by one side "because it is ethically and politically unacceptable." That left the joint management approach. During workshops, the team explored what this would entail and how it might work.

Breaking new ground

"There is very little history of true joint management of aquifers, so they are breaking new ground," stresses Dr Brooks. "Various water management arrangements have been worked out in the past [between neighbouring countries], but they didn't involve joint management."

So far, the team has identified which tasks are essential to joint management and the proper order to complete them. In other words, "what do you do first, what has to go together, what can be separated, and what can be left for later. This is all on the social-political-institutional side," he says. The researchers have also developed processes for quality management. In their most recent report, the team also discusses how to deal with severe droughts caused by several successive years of low rainfall, as well as such sensitive issues as water rights. Current work is exploring the opportunity for on-line scenario building that will demonstrate the potential for various forms of collaboration under varying political, economic, and climatic conditions.

Bigger battles

One of the team's conclusions is that "the most controversial issues are sectoral, not national. If Israeli farmers suffer, so too will Palestinian farmers," explains Dr Brooks. "Both sides face bigger battles over how much water should go to different sectors than how much should go to Israelis versus Palestinians."

By virtue of the team's expertise and influence, Dr Brooks says that its recommendations on joint management will go "right to the prime minister level." Although the plan may be rejected because of bad political timing, "it won't be forgotten. Indeed, with the likely resumption of the peace negotiations as a result of the elections in Israel, it is more likely that their report will get widely distributed and receive a lot of attention."

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