

SOCIETY

Springs of hope

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Observations on the Middle East



Amid the gloom of the Israeli-Palestinian conflict it's a joy to go to a meeting in Jerusalem where hope and co-operation are the keynotes, and especially when it's on an issue that usually carries dire threats of war: water.

The threats exist because water is in such short supply in this part of the world. A primary reason for Israel annexing the Golan Heights in the north, for instance, is that they are the watershed for more than 55 per cent of the country's fresh water needs.

Yet behind the scenes, Israeli and Palestinian water experts, plus others from the region, have been co-operating for years. They were brought together recently by the Israel-Palestine Centre for Research and Information to launch a book of their conclusions - *Water Resources in the Middle East*, edited by Professor Hillel Shuval of the Hebrew University and Professor Hassan Dweik of al-Quds University, both of Jerusalem.

Shuval estimates the minimum annual water requirement in the Middle East is 125 cubic metres per person per year. Lebanon has available about 1,000 cubic metres of water per person, Syria 800, Israel 240, Jordan 200, and Palestine less than 100. The worst-off Palestinians are angered by the sight of well-watered gardens in Israeli settlements on the West Bank, whereas not all Palestinian homes have piped water.

Israelis and Palestinians in the West Bank draw water from two main sources - the Sea of Galilee, fed by the Jordan and Yarmuk rivers, which run from Syria, and to a lesser extent from Lebanon; and the Mountain Aquifer, most of which is in the intended Palestinian state.

The Mountain Aquifer can provide a safe yield of 700 million cubic metres of water a year. Israel draws 500 million cubic metres, the West Bank 200. There were no legal restrictions on drilling for water on the West Bank under the successive rules of Turkey, Britain and Jordan, but after Israel's conquest in 1967, it drilled its own wells but restricted Palestinian water development.

In the Gaza Strip, where most of the water for the Palestinians derives from the separate Coastal Aquifer, the problems are more severe, since the aquifer is shallow and has been overpumped. As many as 1,000 illegal wells have been sunk in the years since the Palestinian Authority was established, and the rate of extraction is far in excess of what the aquifer can sustain. Brackish water from the sea has entered the aquifer and the quality of its water has been much reduced.

In spite of all this, Shuval says that "an equitable solution which will involve Israel, Palestine, Jordan, Lebanon and Syria is possible. Agreement on the significant reallocation of water can be a motivation for peace."

It is in Israel's interests to ensure that Palestinians get adequate amounts of water, he says. Israel can forgo the 75 million cubic metres a year it is pumping on the West Bank. It has already given up five million cubic metres in the Gaza Strip. And it can afford to forgo a further 75 million cubic metres, as desalinated water is becoming available in large quantities and more agricultural needs are being met by treated waste water.

Thus a total 155 million cubic metres, 12 per cent of Israel's current usage, will become available. Indeed, notes Shuval, it is rumoured that at the 2000 Camp David talks, Israel unofficially offered to give up 200 million cubic metres to the Palestinians.

Change in policy is possible because desalination plants can now provide fresh water for a cost comparable to that for supplies from other sources. These plants are not without problems; mass dumping of concentrated salts could damage the Mediterranean's ecosystem. But the cost of providing additional desalination plants over the next decade is estimated at between \$20m and \$40m a year - virtually meaningless compared with Israel's gross domestic product of \$100bn.

In addition, if Syria and Lebanon reallocate 250 million cubic metres a year from their share of the Jordan and Yarmuk rivers - that's less than 1 per cent of their water resources - the total amount would meet Palestinian needs until the year 2025. Turkey also has an abundance of water, and there is a proposal for millions of cubic metres to be floated to Israel in giant plastic tubes pulled by tugboats.

"There's no need for a war over water," says Shuval. "It's an easy dispute to resolve."

The benefits of co-operation are already in evidence. Since the peace treaty between the two countries in 1994, Israel has transferred 75 million cubic metres of high-quality water each year to Jordan, regardless of rainfall.

"The shortage of water is becoming more important in the Israeli-Palestinian conflict," Dr Alfred Abed Rabbo, of Bethlehem University, told his colleagues at the book launch.

But, as another Palestinian academic said: "Peace will solve many of these problems if we have good intentions."