

## Middle Eastern hydropolitics: interpreting constructed knowledge

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Hillel, D. 1994, *Rivers of Eden: the Struggle for Water and the Quest for Peace in the Middle East*. Oxford: Oxford University Press.

Kliot, N. 1994. *Water Resources and Conflict in the Middle East*. London: Routledge.

Shapland, G. 1997. *Rivers of Discord: International Water Disputes in the Middle East*. London: Hurst & Company.

Sherman, M. 1999, *The Politics of Water in the Middle East: An Israeli Perspective on the Hydro-Political Aspects of the Conflict*. London: MacMillan Press,

Soffer, A. 1999, *Rivers of Fire* Rowman & Littlefield.

Wolf, A. 1995, *Hydropolitics along the Jordan River: Scarce Water and its Impact on the Arab-Israeli Conflict*. Tokyo: United Nations University Press.

The colourful titles of the books reviewed here suggest that there have been serious armed conflicts and more are imminent. There have been no armed conflicts over water since the minor events of the early 1960s. Yet the water predicament of the Middle East region has become progressively worse because of the demographically driven water consumption trends. The titles contribute to the construction of the pervasive idea that water shortages lead to armed conflict. Those analysing the water resources of the Middle East in the 1990s have had to live with a very contentious and evolving discourses and to be prepared to shift perspectives.

In the last decade of the twentieth century the Middle East has endured a significant worsening of its water resource position with water demands for food self-sufficiency exceeding water availability by at least 25 per cent. For those who have been participating in or studying the hydropolitics of the Middle East for the last quarter of the twentieth century the 1990s have proved to be very different from any other decade. In the 1990s peace agreements have the ascendancy over water conflict in the Jordan river basin. Unprecedented rapprochement is in train between upstream and downstream riparians in the Nile Basin. Improving technologies promise affordable solutions for key elements of water demand in the domestic and industrial sectors. The end of the Cold War has had a remarkable and a not easy to fathom impact on the Middle East's hydropolitics.

During the 1980s and the early 1990s the spectre of armed conflict over water was argued as the logical outcome of resource scarcity by specialists from many disciplines inspired by the dangerous persuasiveness of unquestioned environmental determinism. (Naff and Matson 1984, Naff 1991, 1992; Starr 1990a, 1990b, 1995) The 1990s Middle East has witnessed over water the normal parallel discourses of international and national politics. To make sense of these contentions and parallel hydropolitics one has to deploy a very comprehensive multi-disciplinary analytical approach, and the extent to which the books reviewed here are successful relates to the breadth and balance of their analytical approaches. Any study that ignores the role of economics and international trade is poorly founded theoretically. Any study that fails to take into account the way that the communities of the Middle East construct their perceptions of water will fail to convey the significance of such beliefs in the water politics at the national the international levels. Any study that fails to give primacy to the political will also encounter problems as we shall see.

In addition to the effectiveness of the analytical approach there is another possibly more important criterion on which to evaluate contributions on such naturally contentious issues as scarce Middle Eastern water. Authors aspiring to scientific analysis whether in the relatively hard environmental sciences or the softer social sciences come in three types. First there can be activist scientists, secondly they can be scientists attempting to be objective, and thirdly they may be meta-theoreticians. In the titles reviewed here there is none that takes a deeply theoretical approach. None attempts the level of analysis attempted by for example Miriam Lowi in her 1993 analysis of the politics of scarce resources in the Jordan river basin and the Middle East more generally. She concluded that a 'realist' explanation explained the power relations over water and the numerous political issues over which riparians have to relate in the three important river basins of the region. The powerful have prevailed and they have determined the significance of all the important linkages to which water issues have proved to be subordinate. Egypt - a Nile downstream riparian, Turkey - a Tigris-Euphrates upstream riparian, and Israel - a mid-stream Jordan riparian, determined allocative outcomes in their respective basins.

The five books have been authored by four professionals of Israeli identity or strong Israeli sympathy. The fifth, by Greg Shapland, was written by a UK foreign service official when on sabbatical leave at SOAS in London. The Israeli authors are not all mutually respectful in that one threatened to sue another for not acknowledging the alleged appropriation of maps and text. Professors Kliot and Soffer are senior colleagues in the University of Haifa who have amicably planned the appearance of their major water studies during the 1990s. Arnon Soffer's agreed that his study would appear initially in Hebrew and was therefore virtually inaccessible to the international community until 1999. Both Haifa academics would count themselves as objective scientists and would appear so to Israeli sympathisers. To a Palestinian reader, however, or any other reader empathetic with the Arab cause their material will seem partial. For example a discussion of water rights and water entitlements is absent from both Kliot and Soffer. Shapland is predictably more comprehensive in his analysis in this area and points out that 'water rights' will be on the agenda of the Palestinian-Israeli final-status talks. As an observer of the Multi-Lateral Track talks on water following the Oslo Accord of September 1994 he could not ignore the equity and compensatory principles which inspire the Palestinian negotiators.

Shapland provides a very useful complement to the scholarly, well sourced and detailed texts of the Haifa University scientists. His approach is imbued with the professional practitioners awareness of the complexity of international relations. And he has a rare talent in communicating and highlighting the major forces at play which help to predict political and diplomatic outcomes. He refers to the principles of international law and at the same time emphasises the hegemonic capacity of the powerful riparian which can ignore such principles. None of the key powerful riparians - Egypt, Turkey and Israel - show any signs of ratifying the 1997 UN International Law Convention on the Non-navigable Uses of International Water-courses (ILC 1997).

Kliot and Soffer are to be congratulated on bringing together a range of complementary information and analytical frameworks. Soffer is strong on strategic issues and on the *rapport des forces* of the region's hydro-politics. The maps which illustrate his arguments are extremely useful. He has put into the public domain a remarkable suite of cartographic material which will immensely inform specialist as well as casual readers. The scope of his analysis is extensive and he treats all the major surface water issues. He is one of the few authors who does not neglect groundwater and devotes a very important chapter to this very important, but hard to quantify and research, water source. Kliot is strong on the attempts to bring legal principles to bear in the very contentious water regimes of the Middle East. In the absence of political and international relations theory to enrich the discussion the review of the international water law in the Middle East is limited and inevitably unsatisfying. For a geographer Kliot is also strangely tempted by the deterministic arguments that water shortage will lead to armed conflict. Soffer successfully explains why communities and governments are also attracted by the logic of water inspired conflict but shows that the cost as well as the limited military options frustrate the outbreak of conflict. Nowhere, however, is there a crisp articulation of the economic, social and political contexts that explain the slow pace of adoption of the well explained options vis-à-vis the provision of 'new' water. Both the slow pace of adoption of the technological remedies, water re-use and desalination for

example, as well as the absence of conflict, occur because the Middle East region has been able to access about twenty per cent of its water needs via the import of 'virtual water'. Virtual water is the water embedded in water intensive commodities such as grain. As much water enters the Middle East each year in this form as flows down the Nile into Egypt annually for use in agriculture. The Nile is the biggest single water resource in the Middle East.

Wolf and Hillel make contributions which inform us on different aspects of the Middle East's water challenge. Wolf has spent much of the second half of the 1990s looking at water agreements especially those of the Middle East. He concludes that despite the contentious rhetoric surrounding international waters, agreements are remarkably durable once entered into. Also that even when agreements are not formally in place contending parties can evolve working relations that go on working when conflict expressed as armed confrontation just short of firing shots exists in other areas of inter-state relations. The durability of the water allocation practices on the Yarmuk in the 1960s, 1970s and 1980s between Jordan and Israel is an example. He also takes an optimistic view on the prospects for cooperation and the recognition of the importance of 'ownership' and 'principles of equity' in current and future negotiations. For this optimism he is taken to task by the realist Sherman.

Hillel is both commended and sharply criticised by Sherman. His environmental evaluation is applauded. His lightweight political analysis is dismissed as blind and misleading. In political theory terms Sherman may have a point. But he does perhaps protest too much in his adamant dismissal of the notion that concessions over water should be made to neighbours that do not have democracy in full bloom. The Palestinians can argue that their legitimate independence struggle has not found much democratic inspiration in its confrontation with Israel. The conciliatory approaches of Wolf and Hillel are more likely to accelerate the essential improvements in neighbouring polities which Sherman insists as a pre-condition for compromise. His is a bleak scenario for the internal politics and international water relations of the region.

The Sherman book is useful in that it provides the hard-line Israeli position on water which is at once economically, socially and politically unrealistic in the long term although it will have appeal to many Israelis in the short term. The reviewer has spent too much time with the water elite of Israel and not much with those in Israel who insist on reconstructing the ideas of the past, in this case on water, and is disappointed that such an activist scientist chooses to enter the fray with limited understanding of the political economy of water. It is just as unhelpful to de-emphasise the economic in a political economy as to ignore the political. The book is richer in theory than the other titles reviewed here but the theoretical framework is narrow. The Israeli economy has evolved in a spectacular way to prove the contention that economic development, in a democratic - 'libertarian' in the Sherman terminology - polity, brings about circumstances that solve problems resulting from resource constraints. Sherman wrongly assumes that the problem is a zero-sum issue (p 93). He asserts this position despite identifying the options to increase the supplies of 'new' water elsewhere in his analysis. Israel has followed development trajectory of a successfully industrialising country. It moved from being an agricultural economy in the 1950s to a post-industrial economy in the 1980s with the highest GDP, equitably accessed by individual families, in the 1990s. Such advanced industrial economies do not face demographic problems which exacerbate natural resource demands unless they choose to do so and can afford the consequences of so choosing. Israel has the scientific, technical, economic and adaptive capacities to survive successfully on a lower volume of water than the approximately two billion cubic metres consumed annually in 1999. It has also proved capable of assimilating immigrants from Russia totaling about 20 per cent of the late 1980s population, in the past dozen or so years. All this suggests that Israel could easily yield water to Palestine in the coming negotiations. There is no mention that Israel's policy intent to reduce water use in agriculture in the first two years of the 1990s was reversed as soon as the Peace Process started. It will be interesting to track the Israeli discourse as the coming deals are made and the effect, if any, of the Sherman arguments on that discourse.

Sherman's assumes that new water is the only solution to a problem which unfortunately he does not properly define. He is as sceptical as all political scientists concerning the efficacy of economic analysis and financial instruments - markets and pricing - for solving the future water crisis. The scepticism is justified. But because he

does not define the problem in terms of 'new water for what?', he falls into the usual trap of those analysing water shortages and the remedies thereof, of assuming that all water is the same. Water in industry and services can produce 10000 times the economic returns to water of water used in irrigation. In a diverse and strong economy such as that of Israel, and even a future Palestine, drinking, domestic, industrial and service sector water needs can easily be met for the foreseeable future. Water stress is the result of allocating water to agriculture and the absence of jobs in water efficient sectors. For a range of political reasons re-allocating water is stressful and avoided in poor economies and insecure polities. Israel has already experimented with both the politics and the economic reality of such re-allocation in a diverse, strong and democratic political economy. Less well evolved economies and polities, such as those of Palestine and Jordan, do not yet have the capacity to experiment. The political price would too high. But the experience of Israel is an important precedent which none of the authors sufficiently emphasises.

The Sherman book is a good read provided the reader is alert to his narrow assumption. He is right to emphasise the primacy of politics in the water sector both in national and international circumstances. His trenchant criticism of Hillel and Wolf on grounds of political naiveté (pp 84-91) has tempted the reviewer to be equally trenchant about the limited scope of his own analysis. He ignores political economy theory and evidence which explains why both democratic and undemocratic polities have been able to enjoy essential water resource security in the consumption sectors that count. His evaluation of the concepts of 'democratic peace' and 'economic peace' are, however, extremely relevant and contribute a great deal to the interdisciplinary discourse. Would that he was as receptive as he demands that others should be.

The five books are rich in detail and generally helpful, in some cases they are profound, in their interpretation of Middle Eastern contexts and water policy options. Their provenance, with the exception of Shapland, means that they do not have the balance that would be provided by independent observers. There is no space here to review books written, or contributed to, by Arab authors. The precedent of the Zurich conference on Palestinian and Israeli waters which resulted in the remarkable edited volume of Isaac and Shuval (1994) was the signal that the 1990s would be a different and a reflexive hydro-political decade, at least in the Jordan Basin. The book by El Musa (1997) on the Palestine-Israel water issues, the material by Arab authors who contributed to the edited volume of Rogers and Lydon (1994), or the chapters published by Haddad, Haddedin, Nasser, Tell, Al-Kloub (1996), or the comprehensive account of the water resources of Palestine (Isaac & Sabbah 1997) all merit review at some point. An even more important set of insights would be accessed via the parallel discourse which has been in train since 1994 involving Palestinian and Israeli water professionals and scientists meeting informally. The process has been very productive in developing confidence, lines of communication and approaches to water data harmonisation, and especially in exploring underlying assumptions about the future management of shared water resources. (Haddad and Feitelson 1994 -1999)

All the titles of the books reviewed include either the word *conflict* or *dispute*, and two combine the word 'rivers' with *fire* or *discord* as their banner titles. None of them, however, will sell as well as the very misleading *Water Wars* (Bulloch and Darwish 1992). Publishers privilege impact above accuracy and the accessible above integrity. Book buyers reinforce the process. None of the books here are as partial or as careless as the authors of *Water Wars*. But the Sherman title should come with a health warning that the book is written by a right wing Israeli with deep involvement in the Israeli political process. He appears to have timed his book to coincide with the up-coming peace talks between Palestine and Israel in order to raise the profile of a precautionary hydro-politics. He reminds Israeli readers and the international community that water is still seen by Israelis as a strategic resource over which no concessions can be made. Meanwhile the 1990s have demonstrated that there has been steady shift in awareness and expectation concerning water, especially amongst the Jordan basin riparians. In both the Jordan-Israel and the Palestine-Israel negotiations water was seen as one of major issues. It was one of three issues in the first dispute - peace, territory and water. In the Palestine-Israel dispute it is still generally regarded as one of five intractable issues in contention - Jerusalem, settlements, borders, refugees and water. In practice water has moved into a much more negotiable mode than anticipated in the early 1990s. Kliot, Soffer, Hillel and Shapland capture some of this movement, but since the major shifts took place during the bleak

Netanyahu years, not addressed in these studies, there is a need for an updated hydropolitical analysis to take us into the next promising millennium.

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- In the *Final Report* the following paragraph reveals how far the process had advanced by 1999 over issues which in the early workshops were no go areas. Para 10 page xi: 'An agreement on principles for allocation of water is a prerequisite for establishing a joint management framework. ... In defining water rights or allocations, fluctuations in availability and the priority of domestic use must be addressed. Thus a priority system has to be agreed upon.'
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