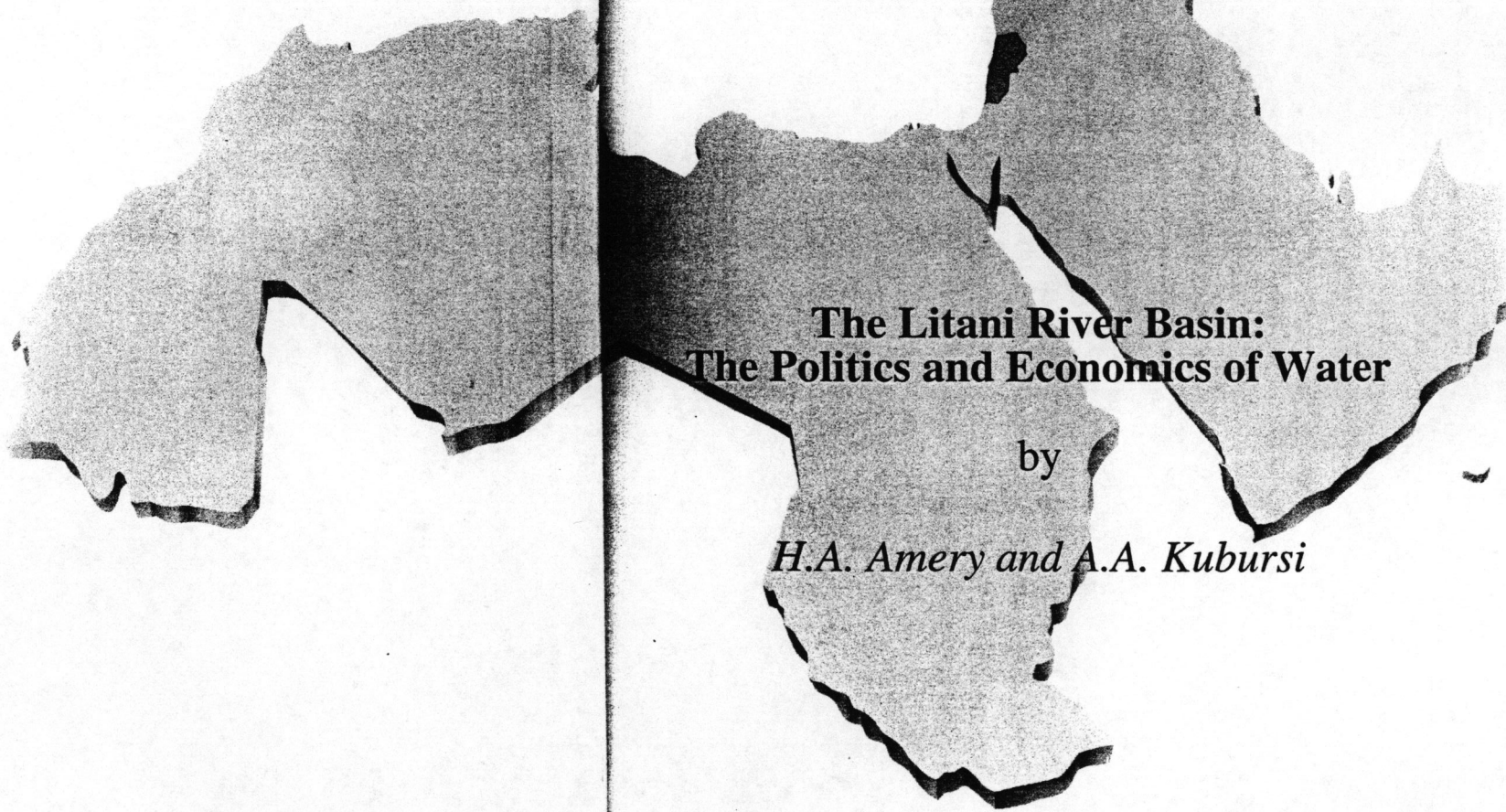


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**The Litani River Basin:
The Politics and Economics of Water**

by

H.A. Amery and A.A. Kubursi

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Introduction

Water is a scarce commodity in Lebanon, especially in the provinces of the Biqā` and the South which are almost solely dependent on the Litani River and its tributaries. These provinces, Lebanon's largest, share a number of common attributes. They are the country's most rural provinces and its principal agricultural regions. They are also the least-developed and most impoverished of the provinces, and in them are found the largest concentrations of Lebanon's Shi`a population. In many ways also, these provinces fell outside the political and economic mainstream of the First Republic.

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Indeed, the Lebanon of the First Republic that emerged after 1943 was basically a confessional society/economy which grew as a natural outcome of the extensive intersection of interests between Maronite bureaucrats and Sunni trading families. The former group was primarily interested in developing and securing a stable source of public finance which, in the context of the then prevailing conditions and structure of the Lebanese economy, could only be based on custom duties on foreign imports. Much of this activity was controlled primarily by a handful of very powerful Sunni trading families in the coastal cities of Beirut, Tripoli, and Sidon. These traders saw their interests best served by a government restricting itself to building an efficient social infrastructure and maintaining a policy environment favorable to free trade.

This intersection of interests manifested itself politically in the National Pact. It also manifested itself, perhaps in a less obvious way but no less significantly, in an implicit economic social contract that supplemented the political accord. The terms of this implicit economic contract called for the public sector to invest heavily in building an extensive infrastructure of trade routes, ports, airports, warehouses, and communication networks, and to restrict its activity in promoting competing commodity-producing sectors (agriculture and manufacturing) or regions which could undermine the dominance and the free flow of imports. It also called for a pro-free trade, pro-business policy environment with minimal government interference, including no income or profit taxes, bank secrecy laws, and a free foreign exchange market. Other sects and regions were virtually cut out of this framework and the prosperity it engendered.

Lebanon's current economic predicament is rooted in the unmanaged mercurial successes experienced between the 1950s and the mid-1970s; and in a less obvious way, in the confessional structure of the society and economy. The civil war brought in its wake a massive destruction of infrastructure and productive capital and resulted in great human loss and displacement of populations. It also brought the end to the implicit social contract of 1943.

The Lebanese today face the challenge not only of reconstructing their economy, but also of reconstituting their society and polity. There is a need for a new social contract. This paper assumes that such a contract must call for a more balanced economy in which

commodity-producing sectors would moderate the lopsided, services-biased production structure of the First Republic, and in which the disenfranchised regions and sects in Lebanon would be represented more equitably within the system and co-opted into the mainstream of society and the economy. This is, perhaps, a tall order for a society and economy still reeling from the impact of civil war and occupation. There is no alternative, however, to a careful reassessment of Lebanon's emerging comparative advantage, and the exploitation of its human and natural resources.

Resources are meager at best and the international and Arab environments are not conducive at present for massive aid to Lebanon. The Lebanese will have to make do on their own. This paper argues that, within this perspective, agriculture and industry will likely play new and revitalizing roles in the south, the northeast, and other underdeveloped regions, if they become the focus of the development effort. The development of the Litani River basin will figure highly in this strategy. Equally important, however, is the fact that development of the Litani basin might very well be a necessary action to thwart Israeli designs over this entirely Lebanese water system.

Water, Conflict, and Development: The Litani in Context

Water is a natural resource that is usually non-tradeable and has no market value. For geo-climatic reasons, water is a scarce resource in most Middle Eastern countries. This problem is most acute in the rapidly developing state of Israel. Israel obtains over one third of its water supply from the occupied West Bank and Gaza Strip. Due to its scarcity and strong association with economic development, the question of water takes on a whole new dimension in the hostile political environment of the Middle East. It has been argued that Israel was in part motivated by its lack of resources, especially water, when it initiated the 1967 War (Stauffer, 1985; Naff and Matson, 1984). Since then, Israel has become dependent on the West Bank's water resources, and its occupation of southern Lebanon up to the western bend of the Litani River is raising questions and charges similar to those raised 25 years ago when Israel occupied the West Bank and Gaza Strip.

Israel's High Water Consumption: An Analysis

There is a general consensus among hydrologists and water planners in Israel that the country is currently developing all of its replenishable water stock. Indeed, the gap between water supply and demand is widening. It is therefore imperative to analyze the factors which led to this situation. This is done by looking first at demographic and cultural factors, and then at the ideological factors which influence water consumption and planning in the state of Israel.

1. Demography and Culture

The majority of Israel's early immigrants came from developed countries, largely in Europe and North America, and to a lesser extent from Australia and South Africa (see Table 1). These predominantly Western settlers "had different (higher) water consumption habits than the indigenous population" (Naff and Matson, 1984; 33).

Labor statistics from 1950 show that 30% of Israel's civilian work force, most of which was made up of Ashkenazi immigrants, had technical and industrial skills. Most of the remaining population, placed in already established villages and in new agricultural settlements, were given on-the-spot training as farmers. So the early

Table 1
Jewish Immigrants by
Continent of Origin, in percent

Years	Europe	America	Africa	Asia
1919-31	81.2	2.5	0.7	8.9
1932-38	86.8	2.3	0.6	8.3
1948-51	47.6	0.7	13.7	34.6
1952-59	32.1	3.4	51.9	12.4
1975-81	60.1	24.0	5.2	10.3

Source: Central Bureau of Statistics, Jerusalem, Israel. No.33, 1982; pp. 134-135.

Jewish immigrants were able to lay the foundations of an industrial and a rapidly developing Israel, hence creating a higher standard of living than that in the neighboring Arab countries or in local native communities. This, coupled with the large number of farming immigrants, translated into a greater demand for water.

As shown in Table 2, Israel's total water consumption in the early 1980s was three times that of Jordan and twice that of Lebanon.

Table 2
Comparative Water Consumption
(in MCM/Yr)

Sector	Israel	Jordan	Lebanon
Irrigation	1295.0	465	670
Domestic	332.5	60	135
Industrial	122.5	30	65
TOTAL	1750.0	555	870

Source: Naff and Matson, 1984.

Similarly, the Israeli newspaper *Davar* (26 November 1982) reported a wide gap between the per capita water consumption of Jewish settlers on the West Bank and that of the Arab population in the same region; while the former consumed 100m³/year, the latter consumed 40 m³/year. After 1967, Israeli authorities imposed new and strict water regulations on the Arab residents of the West Bank. Permits to drill water wells in Arab areas were rarely given, and even then only for domestic purposes. This new policy, according to *Davar* (26 November 1978), was meant to minimize any interference with the water being pumped to Israel proper (within the pre-1967 borders) from there. As a result, in 1977 on the occupied West Bank, 17 wells supplying Jewish settlements (then inhabited by less than 30,000 Israelis) extracted 14 MCM/year (million cubic meters per year), while 88 Arab wells (Palestinians then numbered 600,000) were permitted to pump only 9.9 MCM/year (Kubursi, 1982; 82).

This pattern of high domestic and agricultural water consumption is due to (1) the Ashkenazi population's high standard of living (e.g. having swimming pools, green lawns and parks, and running water in houses), and (2) the Zionist emphasis on agriculture.

2. Zionism and Agriculture

The Zionist movement was ideologically committed to agriculture, as it initially intended to make the new immigrants feel "rooted" in their new home, Israel. It also aimed to secure the "territorial integrity" of the country by firmly occupying peripheral areas, making the new country self-sufficient in food (for security reasons), and expanding the carrying capacity of the land so it could accommodate larger numbers of immigrants.

All of these goals have, by and large, been achieved, although at a substantial cost to the government. Farmers in Israel enjoy "cheap or free infrastructure, tax remission, special credit facilities, and export assistance" (Stauffer, 1985; 77). Moreover, the cost of water for irrigation is highly subsidized. In the mid-1970s, water for Israeli farmers was up to three times cheaper than water for any other economic sector. This continues to amount to a significant cost, as agriculture consumes over 73% of the total water stock available in Israel.

Government agronomists, according to Stauffer (1985; 77), estimated that less than one half of the country's irrigated agriculture was economically productive and only a "fraction" of its agricultural production was economically viable; "the rest requires not only water but steady injections of cash subsidies." This was due to the "negative added value per unit of water for about half of the agricultural output" (Stauffer, 1982; 46-48).

These massive agricultural subsidies and uneconomical farming practices necessitate closer analysis. This will be done by studying the cost of water and labor in the various regions in the country. For example, is the price of agricultural water in the southern Negev desert the same as that in the water-rich Galilee region? In these regions, what is the annual agricultural output per MCM of water per acre, and how does this affect water planning in Israel? Moreover, can Israeli agriculture continue its dependence on cheap Arab labor

from the West Bank and Gaza?

Water policy in Israel, which was, initially guided by Zionist ideology, has become more pragmatic over time. According to Galnoor (1980; 293), until the mid-1960s, "ideology dictated policy, and policy guided planning and operations of water institutions. [In this period] no plan for a new agricultural settlement was ever abandoned only because the cost of supplying water was too high." Galnoor then concludes that diseconomies dictated by ideology and manifested in subsidized water costs could temporarily be tolerated under conditions of conventional or perceived water sufficiency.

In spite of severe pressures on the water capacity of the country, ideological objectives are still being achieved within the limitations of water development, and water policy is such that agricultural interests prevail. Attempts to permanently reallocate water from agricultural to domestic or industrial sectors have been mostly unsuccessful. Although it is clear that the quantity of water for irrigation cannot continue rising at previous rates, analysts confirm that a change in the ideological component of Israel's water policy has yet to occur (Galnoor, 1980; Stauffer, 1985).

As mentioned earlier, although the occupation of Arab land in 1967 augmented Israel's water supply by about 40%, the Jewish state is utilizing almost all of the renewable water resources available to it. As water demand rises, its supply is becoming ever more finite. That raises two fundamental questions: one about the future of the territories, and the other about the alternative sources of water for Israel. To answer these questions one must evaluate the Israeli economy's degree of dependence on the resources of the occupied territories.

Alternative Water Sources

Israel's rapidly depleting water resources has forced it to explore all possible means to increase the country's water supplies. For example, water desalinization and cloud seeding were attempted and found to be both uneconomical and unreliable. On the other hand, the reclaiming and recycling of waste water is more successful, and is now adopted as part of the national water plan. In 1980, some 20% of the urban water flow was recycled and used for irrigation purposes, thus freeing some fresh natural water for use in the domestic sector.

Water planners in Israel intend to develop some 300 MCM/yr of recycled water through the intensive utilization of 80% of the available waste water in all regions of the country (Galnoor, 1980). Ambitious as it sounds, the reclaiming of waste water has some serious environmental and social ramifications. The process of recycling often results in waste water percolating into aquifers, and polluting them. Furthermore, there is the danger that demand for certain produce may be negatively affected by the association in the minds of the consumers between recycled water and waste. There are possible risks of long-term damage to soil and crop yields from known and unknown components of sewage. Despite these problems, reclaiming waste water appears to be both an economical and a promising water-augmenting technique.

"Sharing" The Litani River?

By and large, water is a non-tradeable resource, so Israel's looming water crisis can only have a local/regional solution. It is forecasted that Israel will have an annual water deficit of 800 MCM by the year 2000 (Naff and Matson, 1984). Many analysts claim that Israel's occupation of southern Lebanon, up to the western bend of the Litani, is partly related to Israel's water needs. For Israel the lure of the Litani is twofold, relating to both the quantity and quality of the river's water.

Another attractive factor is the relative ease with which the Litani River may be diverted into the Israeli water system. Complete control over the Litani, whose annual flow is about 900 MCM, could augment Israel's supply of water by up to 800 MCM/yr. This represents a 50% increase in the country's water capacity. Israel's surface and sub-surface water sources have been under significant stress due to scarcity and high demand, and this stress has precipitated a deterioration of water quality. For example, the salinity level in Lake Tiberias (Sea of Galilee), a major source of water in Israel, is over 250 ppm. This level of salinity is too high for some of the sensitive and pervasive crops like citrus fruit trees. On the other hand, the Litani River's water, with a salinity level of 20 ppm, could, if diverted to Israel, dilute the water of Lake Tiberias.

The hydro-strategic significance of southern Lebanon is rarely

considered an explanatory factor for Israel's continued occupation of this part of the country. While the security of northern Israel may well be a factor in this, the Israeli-controlled security belt potentially may serve a variety of purposes. The only feasible solution at present to Israel's growing water problem (in terms of water quality, volume, and proximity of the resource), given the immense difficulty of achieving regional cooperation on water, is the use of the Litani River. Lebanon's continuing political vulnerability, as well as the proxy occupation of the South, make Israel's ambition to "share" the Litani's water with Lebanon virtually unpreventable. This could be done either through a unilateral water diversion scheme or through bilateral negotiations with Lebanon, where Israel could ultimately use the "security belt" as a bargaining chip.

In the latter half of the 19th century, European Jews pursued the objective of creating a Jewish state in historical Palestine, to which millions of Jews in the diaspora could immigrate. Their first major achievement in that direction was in 1917, when Britain promised to assist the World Zionist Organization (WZO) to establish a Jewish "national home" in Palestine.

Aware of water scarcity and its economic value, the Zionist leaders in Europe actively lobbied the French and the British governments to adjust the northern and northeastern borders of Palestine to include the whole catchment of the Jordan River and a large part of the Litani River. These demands were made explicit in a number of letters from Chaim Weizmann, the head of the WZO, to various British government officials (Weisgal, 1977, vol 9). In one such letter to the British Prime Minister, David Lloyd George, Weizmann argued that Lebanon was a "well watered" region, thus that the Litani waters were "valueless to the territory north of the proposed frontiers. They can be used beneficially in the country much further south." Therefore, the WZO considered "the [Biqā'] Valley of the Litani, to a distance of 25 miles above the bend" of the river, to be essential to the future of the Jewish national home (Weisgal, 1977; 267).

It was the desire of the WZO that Israel's eastern borders run a few kilometers east of the Jordan River and thus include its major tributary, the Yarmouk (Weisgal, 1977; 266-267). On October 30, 1920, Weizmann wrote to Britain's new Foreign Secretary, Lord Curzon, stating that

... if Palestine were cut off from the Litany, Upper Jordan and Yarmouk (Rivers), to say nothing of the western shore of the (sea of) Galilee, she could not be economically independent. And a poor and impoverished Palestine would be of no advantage to any power (cited by Hof, 1985; 11-13).

Zionist demands were, however, not met when the British Mandate determined the boundaries of Palestine to include what is today Israel, the West Bank and the Gaza Strip.

Although the WZO failed in its hydrological demands, the issue was not forgotten. Instead, a situation of political and military uncertainty developed as a result of which Israel hesitated and then backed down from any coercive acquisition of Lebanese territory up to the Litani River (Berger, 1985; Rokach, 1986).

Having access to the Litani was on the minds of Israeli government officials early in the state's formative years. The diaries of Moshe Sharett, Prime Minister of Israel in the mid-1950s, reveal that David Ben-Gurion (the first Prime Minister of Israel), and Moshe Dayan (Israel's chief of Staff and later Defense Minister) were strong advocates of an Israeli occupation of southern Lebanon up to the Litani River (Rokach, 1986; 22-27). Sharett quotes Dayan as having said in 1954 that

... the only thing that's necessary is to find an [Lebanese] officer, even just a Major. We should either win his heart or buy him with money, to make him agree to declare himself the savior of the [Christian] Maronite population. Then the Israeli army will enter Lebanon, will occupy the necessary territory, and will create a Christian regime which will ally itself with Israel. The territory from the Litani southward will be totally annexed to Israel and everything will be all right (Rokach, 1986; 26).

In the wake of the June War of 1967 and of Israel's territorial gains at the expense of three of its four neighbors, Moshe Dayan once again reiterated his long standing view that Israel had achieved "provisionally satisfying frontiers, with the exception of those with Lebanon" (Hof, 1985; 36).

Dayan's blueprint for Lebanon was ultimately implemented in 1978 when Israel created the so-called "security zone" in southern Lebanon. This territory was "officially" under the control of Sa'ad Haddad, a Christian Lebanese army Major who, in 1979, declared a Maronite-dominated state in southern Lebanon. Haddad then headed

an Israeli-financed, trained, and equipped Lebanese militia (later renamed the "South Lebanon Army" or SLA). Until today, the SLA and the Israeli Defence Forces (IDF) rule over a strip of south Lebanon up to the western bend of the Litani River.

Israel was not under any imminent crisis of water scarcity when it occupied the West Bank and the Golan Heights (1967), or when it occupied southern Lebanon (1978). The declared objective of both wars was Israel's future security and peace. Having said this, it is significant that since then, more than 35% of Israel's water consumption originates from territories occupied in 1967. From the analysis above, it becomes clear that an important second objective of Israel's occupation of the West Bank is an economic one, water being the major factor. A similar goal is probably being sought in Lebanon.

This suggests a hidden Israeli objective: one that has a hydrological dimension and is future-oriented. That is to say, Israel's current policy in Lebanon takes into account its forecasted water needs. The situation in southern Lebanon resembles that of the West Bank and the Golan after the 1967 War: an Israeli occupation followed by an enforced status quo, and then a move to reap the benefits of occupation.

Since naturally-occurring resource scarcities befall states gradually, they have ample time to carefully plan and develop a long term or impact-mitigating strategy. This has been Israel's approach to its onsetting water shortages. This type of scarcity is also a "real" and not a "perceived" one, as was the case during the 1973 oil embargo. Therefore, Israel's real and onsetting water scarcity is neither sudden nor triggered.

Israel's creation of the "security belt" in 1978 signalled the beginning of Israel's power-balancing phase in Lebanon. Israel's occupation of southern Lebanon appears tolerable to the occupier and to the major international powers. Furthermore, a mechanism of socio-political control and normalization is being implemented in the "security belt." This strategy injects greater certainty into future policy decisions which in turn influences the equilibrium in the balance of power. This approach to water scarcity provides Israel with an access to new and reliable sources of water. On the other hand, it allows Israel greater control over the shape of the balance of power and the emerging structure of expectations, both domestically/

economically and regionally/strategically; hence Israel's assured position as an advantaged state in the region.

On the other hand, Lebanon is left unstable and without the capacity to develop its resources. Under the First Republic, this was politically tolerable. The emphasis then was on trade and on regions populated by the dominant traditional groups of the National Pact. Under the Second Republic, however, co-opting the Shi'a is vital to the system's stability and security. The latter is only feasible with complete and effective control and exploitation of the Litani River. This type of development of the Litani is a strategic imperative for Lebanon, not only because it thwarts Israeli designs on the river and invalidates Israel's claim that Lebanon is wasting its water; but also because it balances and moderates social and economic tensions that are likely to emerge in the rebirth of a new Lebanon.

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