THE FABRICATION OF ISRAEL
About the usurpation and destruction of Palestine through Zionist spatial planning

A UNIQUE PLANNING ISSUE

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5. Water – Another Story of Exploitation of Palestinian and Arab Resources

Conclusion from last part:
Segregation based on race, ethnic origin and also religion surely does not ensure security and peace. However, when segregation is coupled with severe travel restrictions on a particular people and their goods this definitely breeds mistrust, alienation, and more instability and hostility. It is definitely a violation of human rights and international conventions. Walls of concrete, hate, and/or discrimination can not protect nor be a solution. Mobility needs roads and bridges, which inevitably pave the roads of peace.

Next part will deal with the usurpation of the water resources.
5. Water – Another Story of Exploitation of Palestinian and Arab Resources

The Zionist slogan of a state 'from the river of Egypt to Euphrates' (Herzl, 9.10.1888) as quoted in sector II, must also be understood as a demand for water resources from Egypt to Iraq. From the beginning of the project, Zionist planners realised the importance of water to maintain the viability of the Jewish state (Sabbagh 1994:505). Already at the end of the 19th century the Zionist Congress mentioned the importance of water while making the first geographic plans for the Jewish State. Many scientists and politicians assert that the next 'casus belli' in the Middle East will be control and use of water (Amery 1993). If so, the Middle East region carries the potential for conflicts between all the riparian states of the Jordan, Nile, Euphrates and adjacent rivers. The several occupations of south Lebanon can be understood as part of corresponding Israeli strategies. The first part of this section is mainly based on Amery (1993), Eickelpasch (2001), Moss (2006), Dolatyar/Gray (2000).

5.1 Israel’s Usurpation Interest on the Arab Water Resources until Today

Besides the coastal aquifer, the main regional water resources are: the Litani River of Lebanon, the Jordan River, the Lake Taberiya, the Yarmouk River of Jordan, the Golan Heights of Syria and the northern, eastern and western aquifer of the West Bank. (see map 1, map 2)

"Almost half of the water currently used in Israel is captured, diverted or pre-empted from its neighbours." (Stauffer 1996:11) Israel understands water as "Israel’s vulnerable and fragile source of life" (Amery 1993: 232) showing no respect for the needs, demands and plans of others. Control of the Litani River has long-since been a vision of Zionist planners for establishing a Jewish state "from Sinai to ancient Babylon" (Stauffer 1996: 11). The Zionists first proposed diverting the Litani southward in 1905, because they assumed "the waters of the Jordan basin would be insufficient for the future needs of Palestine." (Amery 1993: 233) Because of its water, it was suggested that the Litani becomes part of the "national Jewish entity" in 1919, but this was rejected by the League of Nations. In 1919, Weizmann, head of the World Zionist Organisation at that time, wrote to the British Prime Minister David Lloyd George that Lebanon was "well-watered" and 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." He concluded the Litani was "essential to the future of the Jewish national home." (Weisgal 1977: 267) However, the Litani became part of Lebanon (Soffer 1994: 966-7).

The 1920 San Remo accord, which decided on the former territories of the Ottoman Turkish Empire and designed the 'new map' of the region, did not respect the Zionist demands on water. The northern border especially was not satisfying to Jewish strategists. Hence, Weizman - later president of Israel - commented to the British Foreign Secretary, Lord Curzon: “the draft accord France proposed not only separates Palestine from the Litani River, but also deprives Palestine from the Jordan River sources, the east coast of the Lake Taberiya and all the Yarmouk valley north of the Sykes-Picot line. I am quite sure you are aware of the expected bad future the Jewish national home would face when that proposal is carried out. You also know
the great importance of the Litani River, the Jordan River with its tributaries, and the Yarmouk River for Palestine.' (Dolatyar 1993)

Strong Jewish interests in the Litani were also expressed at the time of the Second World War. Ben-Gurion, Israel's first prime minister suggested the inclusion of the Litani into the Jewish state. The 1941 international commission to whom this was suggested recommended that seven-eighths of the Litani be "leased to Israel." (Amery 1996: 233) However, on this occasion as well Israel could not achieve its objectives. Hence, access to water remained a fundamental object of crisis between the Arab neighbours and the state of Israel after 1948.

**Map 1 Regional Water Resources**

**Map 2 The Jordan River Basin**

(Shared aquifers)

Several plans for sharing or controlling parts of the different water resources, mainly the Litani River, were disputed. Of these plans the 'Lowdermilk'-plan of 1944 was considered the "water constitution" by the Zionists. Lowdermilk proposed to use the Dan, Zarqa, Banias, Yarmouk in Jordan and the Hasbani Rivers in Lebanon as contributors to irrigate the Jordan Valley. Furthermore, the Litani should feed an artificial lake in northern Palestine from where water should be pumped to the Negev Desert in Southern Palestine. However, the US under Eisenhower did not agree to Israel's use of half or more of the flow of the Litani (Amery 1993). Nonetheless, the Lebanese waters in the south remained of interest to the Zionists and Israelis for their purity and quantity (Kolars/Naff, 1993: 4). The diaries of Moshe Sharett, an Israeli prime minister during the 1950s, reveal that Ben-Gurion and Moshe Dayan, defence minister at that time, were strongly advocating military occupation of southern...
Lebanon up to the Litani River (Rabinovich 1985). However, aiming 'to make the desert bloom' (Dolatyar 1993), Israel began to develop national water resources and used the Hula waters to 'irrigate the desert' (see section III).

Between 1948 and 1967 Israel confiscated and usurped not only most of the Palestinian lands but also the water resources. In 1951, Israel drained the Huleh Swamp (north of Lake Taberiya) infringing on its demilitarised zone with Syria and provoking military clashes. Shamir, Prime Minister of Israel in 1990, summarised this policy in the sentence: "Great Aliya (immigration) needs great Israel". This is to understand that further immigration would also require the future appropriation and exploitation of all water resources in the region. On the same principle: "‘Aliya’ in the future needs new water resources and new lands; otherwise Israel will be in a water crisis!" (Sabbagh 1994: 513) Consequently, water was supposedly a main reason for the occupation of the West Bank. (Lee/Brooks 1996) In fact, in the 1967 war, water resources were "perhaps the prominent factor in Israeli strategic calculations." (Amery 1993: 233) After the 1967 war, Moshe Dayan, defence minister, stated, that Israel achieved "provisionally satisfying frontiers, with the exception of those with Lebanon" (Hof 1985, 36). Also Bargouthi (1986) and Saleh (1988) argue that lack of water resources supposedly is one of the motives for the 1967 war. Water supplies from the West Bank constitute as much as 40 percent of the water consumed in Israel. As a result of the 1967 war, Israel took also the Golan Heights. Since then, negotiations and fights between Syria and Israel were mainly about the water-rich Golan Heights and the surrounding region of South Lebanon (see Israeli view map 3).

Map 3 Israel Lobby’s View: ‘Israel’s Water Supply’ from the occupied territories

Nevertheless, the Litani was targeted again. In 1978, Israel invaded Lebanon. The "Litani Operation" was done under the pretext to end the activities of Palestinian ‘guerillas’ (Hiro 1996: 127). In June 1982, Israel invaded Lebanon again. Dolatyar describes that "many view Israel’s retention of southern Lebanon as an extension of its persistent efforts to secure the Litani waters." (Dolatyar 1993)

Alongside and after the occupation of the West Bank, new strategies were attempted proposing contracts on water use and inserting water in 'peace' negotiations with
neighbouring countries. In the late 1970s, a water pipeline from the Nile River to the Israeli Negev desert was proposed by Egyptian President Sadat, but was rejected in Egypt, Israel, Ethiopia, and Sudan, due to security reasons and some national interests on the same water source for others (Gerti 1979). Conflicts also developed around the Euphrates River. The source of the Euphrates is in Turkey, and it crosses both Syria and Iraq, all countries which – to some extent – depend on the river for economic development. Large damming projects by Syria (the 1974 Al-Thawra Dam) and Turkey (the Ataturk Dam in the early 1990s and currently the GAP project) have already led to considerable tension between neighbours (Isaac/Saafar 2005). Substantial future water deficits could seriously worsen these relations and intensify domestic conflicts. Only Turkey and Israel signed a contract in 2002 to enhance Israel’s water supply from Turkey’s share of the Euphrates. This agreement, however, was more significant in political – i.e. in allowing Israel to intensify its relations with the “only other democratic state” in the Middle East – than in material terms. In fact, the supply volume would at best replace the water which Israel agreed to supply to Jordan as part of the 1994 peace agreement (50MCM billion gallons of water (million cubic meters), Brooks/Mehmet, 2000). Furthermore, the water provided would be extremely costly: twice as high as desalinated water and three times that of waste-water recycling (JNF 2007).

5.2 Israeli Water Shortage - Home Made and Dangerous

Israel draws water from several sources in addition to those shared with the Palestinians. Total Israeli utilisation from fresh water resources currently stands at approximately 1.472 MCM/yr, and total water utilisation at around 2.199 MCM/yr, including desalination and wastewater reuse (see figure 1).

Figure 1 Israeli water availability


With an annual deficit of 629 million m$^3$ of water, Israel is over-consuming its water resources by 25 percent. According to findings of a 2007 Jewish National Fund (JNF) report there are "two major reasons that Israel's water shortage has reached such extreme proportions 1) over-consumption, 2) drought ,and each problem exacerbates the other” (JNF 2007). It should be noted that the most significant consumer of water
in Israel is the agriculture sector, total of 1.070 MCM per year although at least 640 MCM of this is from reuse of wastewater (Water Authority, 2010).

Over the last ten years, Israel has experienced a drought cycle which is seriously straining the country's fresh water supply. In the year 2008-2009 the natural enrichment is estimated at 891 MCM, where the average natural enrichment is 1.175 MCM. Currently, the lake Taberiya water level is below the red line. According to the Israeli water authority 2010, the Lake Taberiya water level reached -213.22 m which is 0.22 centimeters under the lower red line.

In fact, the meagreness of this year's rainfall, only 65% of annual average for the winter season is such that Israel will most probably face a total national water deficit for the winter of 300 million cubic meters (Haaretz 27.01.07). Moreover, experts predict that the global warming trend coupled with the region's natural aridity will persist to the extent that even two dry years will be sufficient to take Israel back to a crisis-level water shortage.

Reality is that Israel already depends highly on the usurped water from its neighbours and the Occupied Palestinian Territory (OPT) (see table 1). Isaac and Zarour (1993) record the following composition of Israeli water sources for the year 1991. From 'greening the desert' Israel's over-exploitation of an essential vital regional resources for this aim today includes the danger of 'creating more desert'.

<table>
<thead>
<tr>
<th>Source</th>
<th>million cubic meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Israel</td>
<td>745</td>
</tr>
<tr>
<td>Golan Heights</td>
<td>280</td>
</tr>
<tr>
<td>West Bank</td>
<td>415</td>
</tr>
<tr>
<td>Libanon/Syria/Jordan</td>
<td>215</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.655</strong></td>
</tr>
</tbody>
</table>

Source: Isaac/Zarour 1993

**Palestinian are deprived from access to water**

Following the 1967 war, Israel strengthened its control over the water resources in the region through its occupation of the Golan Heights, Gaza Strip and the West Bank. In the Palestinian Territory, Israel imposed restrictions on water use by Palestinians and declared the lands located alongside the Jordan River as closed military area. In addition, soon after the Israeli Occupation of the Palestinian Territory in 1967, Israel imposed a number of Military Orders to control Palestinian water resources:

- Military order No. 2 of 1967 declared all water resources in OPT to be "Israeli state property";
- Military order No. 92 of 1967, granted complete authority over all water related issues in the OPT to the Israeli army;
Military order No. 158 of 1967, imposed, that it is not permissible for any person to set up or to assemble or to possess or to operate a water installation unless a license has been obtained from the area commander. This order applies to all wells and irrigation installations.

These orders were followed by numerous military orders. Military order No. 291, No. 457, No 484, No. 494, No. 715 and No. 1376, to achieve complete control over Palestinian water resources. It should be noted that these Military orders remain in force today in the OPT, and apply only to Palestinians. Under this military regime imposed in the OPT, Palestinian access to the water resources of the area became extremely limited. (ARIJ 2007)

By the 1990s, Israel was utilising approximately 80% of the water of the West Bank Aquifer System to supply approximately 25% of the country’s water use, leaving only 20% to meet all Palestinian water needs; a situation that persists to this day (ARIJ, 2007). Thus, Israel controls nearly 483 million cubic meters (almost 70% of Israel's actual deficit) of Palestinian water (ARIJ 2007). On the other hand, the Palestinian people in the OPT are denied their right to utilise their own water resources from the Jordan-River System, which they were utilising partially until 1967. This regime, in clear violation of international law, deprives Palestinians of access to the Jordan River which has led to a dwindling Palestinian share of drinking and agriculture water.

Furthermore, restrictions imposed by Israeli authorities on Palestinian movement and access including the segregation wall, checkpoints, and closed military areas introduce real obstacles to Palestinian management and development of their water resources. Since 2002, Israel has been implementing its unilateral segregation plan. The construction of the segregation wall has resulted in the complete annexation of 13 % of the total area of the west Bank. This includes the isolation of 29 groundwater wells with an annual discharge of 5.5 MCM. While, the eastern segregation zone which runs along the Jordan Valley and the shores of the Dead Sea, isolates 165 Palestinian wells and 53 springs with an annual discharge of 55 million cubic meters .

The Israeli policy and practices including the Israeli civil administration rules, the role of the JWC (Joint Water Committee, see later) and the Israeli military and security directives have collectively resulted in cutting the Palestinians off form their water supply wells or at least imposing more restrictions on the use of such wells and exacerbating the water problem in the Palestinian Localities. (World Bank 2009: 40)

In 1998, the –then- Minister Sharon was quoted saying: “My view of Judea and Samaria is well known, the absolute necessity of protecting our water in this region is central to our security. It is a non-negotiable item” (Boston Sunday Globe 1998 in: Shuval/Dweick 2007: 48, see map 4)
Despite the rapid increase in population and demand on water, Israel, has granted Palestinians of the West Bank only few permits for new water wells. All were to be used exclusively for domestic purposes. Between 1967 and 1990 only 23 permits were conferred to Palestinians for digging new wells in the West Bank, of which only 20 were for domestic use (Nasser 2003). At the same time, Israel continued to develop water abstraction from the West Bank’s Aquifer, constructing more than 32 deep wells in the Western Aquifer to supply Israeli colonies (Trottier 1999 in ARIJ 2007). It is important to mention that, new water wells for agricultural purposes in the West Bank were also restricted to three permits. The Israeli policy of metering all Palestinian wells was another means of restricting quotas on Palestinian water utilisation.

In 2008, of the total 88,58 MCM of domestic water supplied to the West Bank Governorates, approximately 53% were purchased from the Israeli water company- Mekorot (Palestinian Water Authority, PWA 2009). Based on the WHO recommendations that each person should receive 150 litres of fresh water per day, the total real deficit in domestic water supply for 2008 was 62,4 MCM for the whole of the West Bank (PWA 2009). Thus, on average; domestic water supply covered only 73% of demand. This deficit is expected to worsen as the population grows. As a matter of fact, the discrimination in utilisation of the water resources shared, unwillingly, by Israelis and Palestinians is clearly seen in the figures of the water consumption by the two populations.

As a result of the Israeli water policy and practices in the OPT, approximately 2,4 million Palestinian inhabitants in the West Bank utilised only about 105.9 MCM of their water resources, with their domestic, industrial and agricultural needs. For comparison, the total amount of water available to approximately 7,1 million Israelis is 1,408,6 MCM. In addition, Israel had the use of further 277 MCM of brackish water and storm water and 450 MCM from non-conventional water from wastewater treatment and desalination (World Bank 2009). On a per-capita basis, water consumption by Palestinians is approximately 73 litres per capita per day (l/c/d) compared to about 300 l/c/d for Israelis. In other words, the per-capita consumption...
in Israel is 4 to 5 times higher than the Palestinian per-capita consumption in the OPT. It should be added that the 580,000 Jewish settlers consume on average 369 l/c/d, while Palestinians are struggling to connect the remaining 26% of the Palestinian communities to the water network. Jewish settlers receive continuous water supply, largely from groundwater wells in the West Bank. It is worth mentioning that the Palestinians in the rural communities in the West Bank survive on far less than even the average 70 litres; in some cases the per capita water use may not exceed 20 litres per day. (see figure 2).

**Figure 2 Inequitable consumption of water between Palestinians and Israelis**

![Per capita water consumption in the West Bank, Gaza Strip, OPT, Israel, and Israeli Settlements](image)

Source: World Bank 2009

*World Health Organization*

Regarding the water availability, the overall Palestinian water extraction from the West Bank aquifer system in the 2007 was 113 MCM. It should be noted that the Palestinian abstraction have declined over the last ten years. It was dropped from 138 MCM in 1999 to 113 MCM in the year 2007 (World Bank, 2009, see figure 3).

**Figure 3 Palestinian withdrawal for the West Bank Aquifer Systems 1999 and 2007**

![Palestinian withdrawal for the West Bank Aquifer Systems 1999 and 2007](image)

Source: World Bank 2009
Palestinian water rights include the groundwater of the West Bank and the Gaza Strip and the rightful shares of the Jordan River System, including Lake of Taberiya. Even Israel recognised Palestinian water rights when it signed the Oslo Accords, but to-date no negotiations on the details of these rights have been held. Moreover, Palestinian Water specialists criticized the agreement because it did not deal with the Palestinian water share in the Jordan River, and the shared Western and North-eastern Basins of the West Bank Aquifer System, as well as a reduction in the Israeli water consumption from the Palestinian water resources or the quantities provided to the illegal Israeli settlers in the OPT. In addition, the agreement ignores the issue of equitable and reasonable distribution of the available water resources. Accordingly, the inequitable division of the shared aquifer systems was maintained, with the same 80% allocated to Israel and 20% allocated to the Palestinian.

The agreement states that the future needs of the Palestinians in the West Bank are estimated to be between 70-80 MCM/yr. This statement is ambiguous and may be interpreted differently by different people. In reality, this amount merely expresses the immediate needs of the Palestinians to satisfy domestic demand during the interim agreement period, without considering future development of other sectors such as agriculture, industry or tourism. Moreover, the agreement indicates that the Palestinians can increase their water supply from the Eastern Aquifer Basin of which an additional 78 MCM of water can be exploited. Most experts agree that the Eastern Basin could not yield this additional amount claimed by Israeli experts. It is believed that there are serious doubts that Palestinians can extract the water quantities specified in the agreement form the Eastern Basin as there is an average annual drop of more that 25 meters in the water table level that is raising alarm about the sustainable yield of this basin. Although 16 year have passed since the signing of the Oslo accords the goals which were laid out in the agreements have not been realized. In fact, most of the provisions of the Agreements have become irrelevant and the water crisis in the OPT has continued to worsen.

While the recognition of Israel to the Palestinian water rights in the Oslo II agreement is a very important step forward, the agreement attempts to undermine the significance of this issue by talking about maintaining existing utilization and recognizing the necessity to develop new resources, tacitly accepting that more water is needed to satisfy the needs of both populations.

In the Joint Water Committee, regarding the water resources development and management, it was intended that the Oslo agreement would provide greater access for Palestinians to the water resources. Unfortunately under the prevailing conditions the Palestinian Water Authority (PWA) is not able to manage and develop their own water resources. In accordance with article 40 of the Oslo Accords, any proposed management measures, investments or infrastructure projects pertaining to the development of the water or sanitation sectors within the OPT are subject to the approval of the Joint Water Committee (JWC). The Israeli Civil Administration has veto power over the JWC. A high proportion of Palestinian projects has been rejected or long delayed in the JWC. Records show that out of the 417 projects presented to the JWC during the period 1996-2008, only 57% were approved. 143 water projects are still waiting JWC approval and 22 projects were rejected.

Regarding the well drilling projects (water supply projects), out of 202 projects, 65 were approved by the JWC. Of those, only 38 were implemented, after receiving the additional approval of the Israeli civil administration. (World Bank, 2009) In contrast, any water projects for the Israeli settlements (which have been illegally constructed on Palestinian Land) do not require the approval of the JWC. Additionally, Israel is
conditioning approval for waste treatment plants with linking of settlements. By that Israel wants the Palestinians to legitimize the settlements, which is not acceptable. Moreover, Israel claims that there is a memorandum of understanding that sets the standards for waste water treatment to be 10:10 BOD:COD ((biochemical oxygen demand: chemical oxygen demand). Such a high standard is not reasonable. Israel is obviously using this tactic to justify its control over waste water treatments plants in the OPT and to divert Palestinian waste water to be treated and used inside Israel. Not only had that, but Israel charges Palestinians 25 cents for every cubic meter of waste water diverted (Isaac 2009).

In addition to the above mentioned issues, there are still other issues which were meant to be realized as an outcome of the Oslo accords. However, due to Israel’s continued obstinacy in opposition to international resolutions regarding Palestinian people’s sovereignty over their water resources they remain unfulfilled. The most pressing of these issues are:

- **Transfer of Authority**: After the inauguration of the Council, the Civil Administration in the West Bank will be dissolved, and the Israeli military government shall be withdrawn. Israel should have transferred the West Bank Water Department (WBWD) to the PWA but, until now, it is under the so-called “civil administration”. Moreover, The Civil Administration in the West Bank was to be dissolved, and the Israeli military government withdrawn. But until now, the so-called Civil Administration is still operational.

- **Making available all relevant data**: Palestinians are still waiting for the data.

- **The Oslo agreement is an Interim Agreement, which was supposed to be revised in permanent status negotiations within five years of its signing. However, 16 years later this did not happened consequently the water sector still remains under Israeli control.**

- **Water Rights**: In the preparatory talks about the final status negotiations, Israel refused to discuss Palestinian water rights and insisted on dealing with some additional water quantities that may be granted to Palestinians from other non-conventional sources such as desalination or imports from the region i.e. needs and not rights. Lately, it was reported that Israel is building a desalination plant near Khadera for the benefit of the Palestinians. The PWA wholeheartedly denied this.

- **The two sides view the West Bank and the Gaza Strip as a single territorial unit, the integrity and status of which will be preserved during the interim period**. However, Israel has segregated the West Bank from Gaza and East Jerusalem from the rest of the OPT.

(Interim Agreement, Annex III, Appendix 1, Article 40)

5.3 Israel's Water Grab between Jordan River and Litani River, with or without a Palestinian State

The migration of East European and former Soviet citizens to Israel has resulted in a vast increase of its population. An advertisement of the Ministry of Agriculture in the Israeli Newspaper Jerusalem Post (1990) argued that a Palestinian state on the West Bank would draw on the water resources that are vital to Israel. ‘Relinquishing’ the land to a potential Palestinian state would likely result in the repatriation of
Palestinian refugees, whom the advertisement referred to as 'poverty-stricken humanity', from surrounding Arab countries. That in-migration "would generate an impossible strain on the already over-extended water supply and inadequate sewerage system, endangering even further Israel's vulnerable and fragile source of life." The commentary concluded by asserting that "it is difficult to conceive of any political solution consistent with Israel's survival that does not involve complete, continued Israeli control of water and sewerage systems, and of the associated infrastructure, including power supply and road network, essential to their operation, maintenance and accessibility" (JP 1990 10 August, intern. edition).

The only alternatives are recycling water and desalination, which is also included in future programmes. But as fresh potable water remains an asset, it is easy to conclude that before reaching any final solution, Israel's governments will create facts on the ground concerning the Litani and Jordan rivers.

**Litani River**

The main attraction of the Litani River is the high quality of its water. The salinity level is only 20 parts per million, whereas that of the Lake Taberiya is 250 to 350 parts per million. Israel's aquifers are stressed, especially along the coast, and the water in them is increasingly brackish. The water of the Litani would lower the saline level of the Lake Taberiya, from which the National Water Carrier channels water to much of the country. "It is this purity that makes the Litani very attractive to the Israelis, who have developed their National Water Carrier System with a view towards potable (as opposed to irrigation quality) water". (Naff/Matson 1984, 65)

Turkey proposed a peace pipeline to meet the needs of numerous southern water-deficient countries, including Israel, but importation over hundreds of kilometres of 'unfriendly territory' is seen in Israel as untenable and easily subverted, thus a threat to national security. It is therefore becoming increasingly evident that the only feasible solution - in terms of water quality, volume, and proximity of the resource - to Israel's growing water problem is to tap a nearby source, namely the Litani River.

When Israel occupied south Lebanon, creating a special zone under military control, the Israeli army prohibited drilling of wells there (Bargouthi 1986). Moreover, after the 1982 invasion, Israeli army engineers carried out seismic soundings and surveys near the westward bend of the river, probably to determine the optimum place for a diversion tunnel, and confiscated hydrographical charts and technical documents of the river and its installations from the Litani water. Over the years, there have been reports of water siphoning from the Litani into the Jordan River basin, a distance of less than ten kilometres (Cooley 1984; Bargouthi 1986; Saleh 1988; Abu Fadil and Harrison 1992; Gemayel 1992). Independent water analysts, however, have reported that Israel has been diverting some water from the Litani River into the Jordan River (Collelo 1989, 117) by tapping the massive underground water resources. Hence the measured flow of the Litani visibly seems not affected (Cooley 1984, 22-23).

**Jordan River**

The Jordan Rift Valley is a distinct geological and geographical part of the Great Rift Valley which extends from Syria to the Red Sea. The Jordan River is an essential water catchment with the largest water yield in the region, running down from the
main springs in the southern mountains of Lebanon through the lake Taberiya to the Dead Sea.

As the only significant source of surface water in the region, the Jordan River has been the source of conflict between the countries that share it (Lebanon, Syria, Jordan and Palestine). The closest thing to a regional agreement on water utilisation between the riparians is the Johnston Plan (1955), which was approved by technical committees from Israel and the Arab League, but has never been ratified and the waters of the Jordan River have been exploited by unilateral projects without any compliance to the water allocations that were identified (see table 2).

Table 2 Johnston Plan (1955) Quotas for Water Share of the Jordan River

<table>
<thead>
<tr>
<th>Country</th>
<th>First Johnston Plan</th>
<th>Revised. Johnston Plan</th>
<th>Percent of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palestine (WB) *</td>
<td>part of Jordan</td>
<td>257*</td>
<td>20,1</td>
</tr>
<tr>
<td>Jordan</td>
<td>829</td>
<td>463</td>
<td>36</td>
</tr>
<tr>
<td>Israel</td>
<td>426</td>
<td>400</td>
<td>31</td>
</tr>
<tr>
<td>Syria</td>
<td>50</td>
<td>132</td>
<td>10,2</td>
</tr>
<tr>
<td>Lebanon</td>
<td>-</td>
<td>35</td>
<td>2,7</td>
</tr>
<tr>
<td>total</td>
<td>1305</td>
<td>1.287</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Note: in 1955 the WB was ruled by Jordan, the share together was set 720 mcm/yr. Some literature estimated the Palestinian share as 257, others 215 mcm/yr.


An important point to note is that when the Johnston Plan was drawn up, the West Bank was under the Jordanian Administration and, hence, the water rights of the Palestinian people in the West Bank were never explicitly defined. However, a canal was planned on the western side of the River (the West Ghor Canal) as part of the greater Yarmouk Project, which was to supply 240 MCM of water to irrigate lands in the Jordan Valley (Murakami, 1995; Naff and Matson, 1984). This canal was never built, and following the 1967-war and the Israeli Occupation of the West Bank, 140 Palestinian pumping stations on the Jordan River were destroyed or confiscated. Since that time, Palestinians have had no access to the Jordan River's waters (ARIJ 2001) The most significant project carried out in the Jordan River Basin is the Israeli National Water Carrier through which Israel diverts approximately 650 MCM of water per year from Lake Taberiya to Negev desert and the Jordanian East Ghor Canal. It is worth mentioning that the Jordan River Basin satisfies around 50% of Israel's and Jordan's respective water demands, supplying around 33% of the Israeli fresh water use (Netanyahu, 2006), while it only meets 5% of Lebanon and Syria combined water demands. These projects have reduced the annual water flow of the Jordan River from 1,320 MCM in the early 1950's to 50 MCM of high salinity and deteriorated quality water (Dead Sea Project 2004; see table 3).
Table 3 Utilization of Jordan River Water in 2005 in mcm/yr

<table>
<thead>
<tr>
<th>Country</th>
<th>Water quantity</th>
<th>Percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occ. Palest. Territory</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Jordan</td>
<td>235</td>
<td>17,8</td>
</tr>
<tr>
<td>Israel</td>
<td>870</td>
<td>65,9</td>
</tr>
<tr>
<td>Syria</td>
<td>160</td>
<td>12,1</td>
</tr>
<tr>
<td>Lebanon</td>
<td>5</td>
<td>0,4</td>
</tr>
<tr>
<td>Flow ended in the Dead Sea</td>
<td>50</td>
<td>3,8</td>
</tr>
<tr>
<td><strong>Total Flow</strong></td>
<td><strong>1.320</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: PWA Palestinian Water Authority 2005

The Dead Sea as well as the Jordan River are loosing enormously, endangering the survival of a unique ecosystem and historical landscape, attractive for its bio-diversity and subtropical climate (Anani 2007, see map 5, figure 4).

Map 5: Dead Sea shrinking size beginning last century and 1997

Figure 4: Dead Sea shrinking water between between 1976 and 2003

Source: Gavrieli 2000, Lipchim 2004, Data from IL Hydrological Service

Water quality in the Lower Jordan River is much poorer than in the Upper Jordan River, due to input from saline springs and contamination from irrigation return flows as well as the diversion of much of the river upstream. There is much concern that the level of the Dead Sea is dropping, due to the reduced input from the Jordan River and increased use of other sources. The surface area of the Dead Sea has shrunk by around 30% in the past 20 years; a drop in water level that translates to the rate of approximately 1 m per year (Lipchim 2004, Gavrieli 2000, IMFA 2002).

According to the Israeli Ministry of Foreign Affairs (1999), there is an actual plan to change the map, which will completely modify the Jordan valley and river: the Jordan Rift Valley Project. The project was initiated between the United States, Israel and Jordan. It aims to encourage tourism, transportation, trade and industry, agriculture,
aquaculture, environment, telecommunication and energy generation. While the role of the Palestinian Authority was marginalised, one can say that the Jordan Rift Valley Project comes as the biggest and most profitable integral part of Israel’s recent national development plans. (Anani 2007: 2pp) (see section VI). Furthermore, and as the issue of fresh water is especially acute in Israel, agreements with Jordan and the joint use of the valley - of which the majority is located in the occupied West Bank - was an important step for Israel’s water grab. Consequently Israel aims to completely exclude Palestinians from this source in the long run - the segregation wall has already been built and will be extended to the east side ‘when it is time’ as Sharon mentioned (Isaac/Zarour 1993).

Conclusion

Israel's land grab is flanked by water grab. The 'greening of the desert' is a false story. Greening the desert would look different and if so, such a project is regional and cannot be done without agreement of the neighbours who depend on the same resource. The opposite has been happening since the beginning of the Zionist project. The usurpation not only of land but also of important water resources was envisaged by all Zionist planners, and after the repeated occupations of south Lebanon this is even more evident. Immigration programmes, modern life style and an extensive use of fresh water sources have become an evil instead of a dream. Huge irrigation projects in the Golan Heights - where sprinkler systems water the apple plants during summer days and nights - the assurance of a luxurious life-style in the colonies with facilities such as swimming pools for the settlers, and planting cotton in an areas that never tolerated this water consuming crop is only one side of a wrong dream. The suffering of water shortage and lack of basic sources for the Palestinian society is the other side. Water-wars are home-made, and consequently not a result of general shortage. Alternative policies could be developed in an optic of responsibility for a sustainable future of the region and in harmony with the neighbours. But this requires a different conception of the State of Israel.

References

Abu Fadil, M., Harrison, D. (1992) Arab-Israeli negotiations: that was not the idea. Middle East (March):21-27
In: www.scripps.ohiou.edu/news/Beirut/tobias.html
Jerusalem Post (international edition). 1990 10 August


Sabbagh, Aleef (1994) In Isaac, Jad./Shuval, Hillel (Eds): Water and peace in the Middle East. Amsterdam: Elsevier


SUSMAQ Sustainable Management of the West Bank and Gaza Strip Aquifers (2001b) Technical Background Water Issues for the Final Negotiations. Technical report No SUSMAQ 08 V 1.0 Ramallah


Water Authority- state of Israel, 2010: Trends in the Development of Israelis water Sector.


Internet


https://web.macam.ac.il/~aron/Int-ME/water/THE%20LITANI%20RIVER.htm visited 26.09.06 17:30

http://www.ibn-rushd.org/forum/water.pdf visited 20.05.2010


Newspapers
Al Hayat
Ha’aretz
Jerusalem Post