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CHALLENGES AROUND THE MEDITERRANEAN BASIN**

*by Roberto Aliboni*

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## WATER AS A FACTOR OF CONFLICT CHALLENGES AROUND THE MEDITERRANEAN BASIN

*by Roberto Aliboni<sup>1</sup>*

The southern shore of the Mediterranean region is an area with very high population growth. National economies haven't - but for Israel - the strength and vitality of northern-shore states. On the southern shore the state has generally a pervasive role in the society. Inefficient state-owned industries and subsidised agriculture give way to products that are scarcely competitive on the world market. Weak southern Mediterranean economies, that could somehow get along with a stable population, risk the failure in trying to keep pace with the ongoing population boom and with globalisation. For this reason, on the southern shore of the Mediterranean resource disputes have emerged, especially since the seventies, as an area of contentions between states. The latter more and more is perceived as a dangerous and hardly manageable issue.

This is particularly true, however, for water [Allan; Ferragina; Soffer; Swain]. On the southern shore of the Mediterranean region, water is a rare commodity. The World Bank statistics identify some twenty countries "chronically water-scarce". Three of these countries - Israel, Egypt and Jordan - belong to the Mediterranean region.[Hughes Butts: 68].

At the beginning of the nineties, a number of Mediterranean leaders have all referred to water as a direct cause of war. Former UN Secretary-General Boutros-Ghali is on the record for the following 1991 statement: "The next war in the Middle East will be over water, not politics" [Hughes Butts: 65]. Turkish President Turgut Özal, former Egyptian President Anwar Sadat and King Hussein of Jordan have all made declarations linking water disputes to war. [Beschoner: 6].

Significant tensions have arisen and conflict could erupt over the fresh water of three river systems of the region: the Nile, the Jordan and the Tigris-Euphrates.

The Nile basin involves nine states with varying claims on its waters: Egypt, Sudan, Ethiopia, Uganda, Kenya, Tanzania, Rwanda, Burundi and Zaire.

Sudan and Egypt have since long exploited Nile's waters for generating electricity, irrigation and industrial production. Ethiopia has not yet begun exploiting the waters of the Blue Nile, which develops on its soil and accounts for 86% of the waters of the river. Nor have begun the others above mentioned central African states.

The only existing agreements are between the two final users of the Nile's water, Sudan and Egypt. In 1959, Egypt and Sudan signed a bilateral agreement by which 55.5 billion cubic meters of water went to the former and 18.5 to the latter.

For both Egypt and Sudan Nile's water is a vital resource. It guarantees to Egypt a substantial amount of its electrical energy, and water for irrigation, industrial production and consumption. To Sudan, the Nile guarantees an agriculture output which feeds the population and is exported. For this reason these two countries, particularly Egypt though, are very sensitive to political developments as well as water-development projects arising in the Upper Nile basin. For instance, the existence of a communist

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<sup>1</sup> Roberto Aliboni is Vice President of the Istituto Affari Internazionali-IAI, Rome. This text is a revised version of a paper on Mediterranean conflict co-authored with Paolo Miggiano and published in the Series of the Al Ahran Center for Political and Strategic Studies in Cairo.

regime in Addis Ababa had long been of special concern to Egypt. But Egypt has been all the same concerned by rumours that the non-communist government which has replaced Menghistu's regime would like to build a dam on the Blue Nile to generate electricity.

In the first half of the eighties, Egypt and Sudan have been worried by Libyan covert and public initiatives related to the Nile. In 1984, Egyptian President Mubarak accused Libya of having planned an air strike against the Aswan High Dam, which provides one fourth of Egypt's electricity [Sicker: 62]. In that same period, Mubarak and Sudanese President Nimeiri were concerned about the Great Man-Made River, the Libyan project to extract water from the Nubian sandstone aquifer in the Kufra area, and bring it through a pipeline to Tobruk and Tripoli. The Nubian aquifer is a sort of underground sea laying beneath the territories of Libya as well as Egypt, Sudan, and Chad, covering 2.5 million square kilometres, and containing approximately 50 thousand cubic kilometres of water. Sicker [63-64] also reports about Khadafi's ideas of digging canals or building pipelines from the Nile to Libya, from either Lake Nasser or Sudan. With respect to these plans, concerns have been regularly expressed by the interested parties, but all in all they could hardly be taken as serious threats.

Three states are comprehended by the Jordan river basin: Syria, Israel and Jordan. The latter two are considered chronically water-scarce countries. For them, the Jordan river is a very important, if not vital resource. This is the only case of the region in which, in this century, a conflict for water has been waged. From 1965 to 1967, Israel repeatedly attacked installations of a Jordan-Syrian water project. Apparently we have a clear case of a water originated armed conflict. But, as Greg Shapland comments [313], "This is a very particular context. Water issues are part of a much wider dispute in which the Arab riparian states remain in a state of belligerency with ... Israel ... The action that Israel took was aimed at an unusual project. In 1965, the Arab riparian states began to work on a scheme to divert into the Yarmuk the headwaters of the Jordan which rise in Lebanon and Syria. This was intended to divert water away from Israel's National Water Carrier, completed in 1964. The aim of the project was ... to damage Israel for political ends - or at least to demonstrate that Israel could not appropriate 'Arab' water with impunity".

Today, after the collapse of the multilateral talks within the framework of the Middle East Peace Process, in which a table dealing with water problems did exist, no general agreement is in place for the common exploitation of the Jordan river by the three involved parties. In the Peace Treaty signed in October 1994 between Israel and Jordan, the former will release to the latter some extra 50 million cubic meters of water from the rivers Jordan and Yarmuk. After the completion of new dams the amount could rise to 100 million. A full conflict is in place between Israel and the Palestinian Authority [Meroz], while there are occasional disputes between Israel and Lebanon [Zisser].

The Tigris-Euphrates river system involves mainly Turkey, Syria and Iraq. For Turkey, exploitation of the river has been useful to attain food self-sufficiency and in the last years new installations were made to develop the surrounding area, inhabited by Kurds. For Syria and Iraq the river is equally vital for irrigation, industrial use and consumption.

In 1987 Turkey and Syria have signed a Protocol that guarantees to the latter 500 cubic meters per second of Euphrates' water. Syria, for its own, has signed another bilateral agreement with Iraq, assuring to the latter 58 percent of river's water that reaches Syria.

Both Syria and Iraq, downstream countries, have been worried by Turkey's water policy. Their main concern being the "South-East Anatolia Project" launched by Turkey, consisting in 22 dams and 25 irrigation systems intended to develop the area.

If the rivers are the most important renewable fresh water in the region, underground aquifers are an important source of non-renewable water. In significant areas of the United States (Texas), China and India, agriculture has been abandoned because of the depletion of aquifers. In Gaza, as well as on the Arab coasts of the Persian Gulf and the United States, excessive pumping has led to intrusion of sea water in the aquifers, contaminating fresh water.

In the Mediterranean area, the most contended aquifers are those shared by Israel, Palestine and Jordan. A bilateral agreement - part of the 1994 Peace Treaty - regulates joint exploitation of the Araba aquifer. In the West Bank no agreement is in place and the water of Yarqon-Tananim aquifer goes to the stronger: 80% to Israel and 20% to Palestine.

Conflicts over fresh water profit from a feeble juridical framework. First, international law on fresh water is far from being established. Doctrines are contradictory. The riparian doctrine doesn't allow to divert the flow of water. The appropriation doctrine gives priority to the first user of water. The Harmon doctrine accords an indisputable right to water to the upstream state<sup>2</sup>. The doctrine of equitable apportionment, most used today but not universally recognised, divides water somehow equally by the states concerned. Second, as shown by the agreements mentioned before, water rights accommodations are only bilateral acts, not involving all the parties concerned. Third, the above mentioned sharing agreements are - but for one - based on fixed amounts of water and not on percentages. Since rivers provide a very unsteady amount of water, an agreement based on fixed quantities of water could be a source of acrimony.

Could fresh water become a "driver" to armed conflict?

Tensions over the control of Nile's waters have never reached the level of armed conflict neither of military confrontation. Armed conflict over the exploitation of the Jordan have been only part of a war driven by other overriding factors. As Natasha Beschoner remarks [68], "While sabotage of dams and related facilities cannot be ruled out in the Tigris-Euphrates region, the primary significance of water in interstate relations is clearly a bargaining tool". Syrian backing of PKK's guerrilla active in Turkey could well be interpreted - among other things - also as a mean to strike a better deal from Turkey on the exploitation of the waters of Euphrates.

One way in which water can become - and has become in the past - a bigger security issue is through the adoption of a food security policy by a country's leadership. Food security meaning the capability for the country to be self-sufficient in food production and, therefore, not to depend on foreign imports. This policy could lead to severe conflicts over water with other states and has been already been an economic disaster. Only Turkey and Sudan, both rich water countries, have been able to realise it. But the appeal of the food security policy has decreased and, together with it, the likelihood of armed confrontations over water. As Allan and Mallat note [15], "Water has been regarded as a potential source of conflict in the region and so it would have been if the governments of the Middle East states had insisted on observing their food self-sufficiency policies to the point that they had refused to import food". Instead they have

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<sup>2</sup> Mr. Harmon was the Attorney-General of the US who in 1895 maintained that the state has absolute sovereignty over waters flowing in its territory.

chosen another policy: to go to the market and buy “very cheap water via international trade in food”.

The opinion of scholars is thus opposite to that of the above mentioned political leaders. Armed conflict over water *per se* is an unlikely scenario. Even without going as far as Berthold Hoffman, who talks about Hydro-Paranoia [Hoffman], according to Hughes Butts [81], one of the most convinced of the likeliness of water conflicts, “it may be that water will serve as the catalyst to ignite an existing flammable mixture of ethnic, religious, or historical enmities”. For Natasha Beschorner [70], “Water related disputes are a consequence of, rather than a catalyst for, deteriorating relations between states”. According to Greg Shapland [322], it is “possible that quarrels over water will exacerbate tensions over other issues, leading to the sort of confrontation in which rational calculations about the value of water and the costs of warfare have no place”.

If water disputes are not the “driver” to conflict, the reverse is true, i.e. water can be used for social, political and military objectives. In Israel, farmers are a strong political pressure group. In Syria, the area near to Euphrates - from which the core of the military is recruited - is the best irrigated. In Egypt - like it used to be done in ancient Rome - veterans of the Arab-Israeli wars have been given a piece of land to cultivate. In Libya, one aim of the Great Man-Made River project is to supply water to Khadafi's tribe in the Sirte. Iraq has embarked in a project of creating a third river in between the Euphrates and the Tigris mainly to dislodge opponents to the regime based on the marshland areas [Beschorner: 4].

In conclusion, while water in itself can hardly be regarded as a direct cause of conflict, in tense and conflict-ridden frameworks, like the Middle East, water disputes and the absence of rational solutions to its consumption and management may easily turn water into a catalyst of conflict.

## References

- Allan J.A. 2002, "Hydro-Peace in the Middle East: Why No Waters Wars?", *SAIS Review*, Summer-Fall, Vol. XXII, No. 2, pp. 255-272.
- Allan J.A., Mallat C. 1995, "Introduction", in Allan J.A., Mallat C. (eds.), *Water in the Middle East. Legal, political and commercial implications* (London, New York: I.B. Tauris Publishers) pp. 1-18.
- Beschorner N. 1993, *Water and Instability in the Middle East* (London: International Institute for Strategic Studies and Brassey's) (Adelphi Papers, No. 273).
- Ferragina E. (a cura di) 1998, *L'acqua nei paesi mediterranei. Problemi di gestione di una risorsa scarsa*, Il Mulino, Bologna.
- Hoffman B. 1998, "Hydro Paranoia and its Myths – The Issue of Water in the Middle East", *Orient*, No. 39. pp. 251-269.
- Hughes Butts K. 1997, "The Strategic Importance of Water", *Parameters*, Vol. 28, No.1, Spring 1997, pp.65-83.
- Meroz Y. 2001, "Il negoziato israelo-palestinese sull'acqua", *Europa Europe*, anno 10, No. 6, pp. 89-115.
- Shapland G. 1995, "Policy Options for Downstream States in the Middle East", in Allan J.A., Mallat C. (eds.), *Water in the Middle East. Legal, political and commercial implications* (London, New York: I.B. Tauris Publishers) pp. 301-323.
- Sicker M. 1987, *The Making of a Pariah State* (New York, Westport, London: Praeger).
- Soffer A. 1997, *Natural Resources in the Middle East*, paper submitted to the Halki International seminar on "European Union and the Mediterranean region", Halki, 11-16 September.
- Swain A. 1998, "A New Challenge: Water Scarcity in the Arab World", *Arab Studies Quarterly*, Vol. 20, No. 1, Winter, pp. 1-11.
- Zisser E. 2002, "Israel and Lebanon: the Battle for the Wazzani", *TelAviv Notes*, No. 50, Tel Aviv, October 14.