IV. A Geopolitical Analysis on the Issue of the Water Reserves in Middle East

[Published first in: *Journal of Oriental and African Studies* 7 (1995), 69-83]

1. General presentation of the diplomatic framework concerning the geopolitical importance of water in Middle East

Water reserves represent a vital goal of the Arab-Israeli peace negotiations (A/I/N). The multilateral negotiations, that started in Madrid in November 1991 under the tutelage of USA and Russia and continued in Washington after September 1992 together with the bilateral discussions on regional problems (sovereignty issues and administrative status of the Palestinians), have been followed by seven rounds of discussions on the issue of the water, in which participated Israel, on the one side, and a Palestinian-Israeli delegation, on the other. These seven rounds were held in first place, in Moscow in January 1992, then in Vienna (13-14 May 1992), Geneva (May 1993), Peking (26-28 October 1993), Mascat (17-20 April 1994), Athens (7-9 November 1994) and, finally, in Amman (18-22 June 1995).[1]

None of these meetings had been successful because Syria and Lebanon were absent. The governments of Syria and Lebanon stated

1. Greece participates, from the beginning, in the Working groups or the multilateral negotiations on the water resources, and it will offer a special seminar for the use of the geothermal waters (6-17 November 1995). See Gaveholer's Summary Working Group Meeting on Water Resources, Amman, Jordan, June 18-22 1995.

that any discussion of the multiple aspects of the conflict, such as the arms control, the refugee problem, the economic development and the protection of the environment, is without significance as long as Israel continues to occupy Palestinian territory. The above governments, since the Madrid meeting, have already made clear that their first concern is the contrivance of an international legal status that will settle the existing bellicose situation, due to the territories that Israel has occupied and principally the Golan Heights, between them and Israel.

1.1 The water issue in the general strategic importance of the Golan Heights

The cuts in water consumption in the Heights were applied according to an analogous system in West Bank; even though the latter has been annexed to Israel only in 1982 (its population is 2,6 millions, according to 1990 data).

In any case, we must remind that the leading motive for the annexation of the Golan Heights was not only the supposed[2] capability for the strategic control of Damascus "from above" and for the sake of the Israeli cultivation but, also, the existence of the snowy heights of Hermon from which flows the spring at Banias that provides with water the Lake Tiberias. In this way, the control of the Hermon basin and its watershed lies heavy on Tel Aviv's decision to annex Golan although it was, and always is, necessary for Israel to recourse to the Lake Tiberias for pumping water to irrigate the cotton cultivation of the Israeli settlers in the area.[3] The water resources in the Golan Heights are estimated to be 20 million m^3/ year.

Following the probable solution on the Golan Heights issue between Israel and Syria and considering the already achieved settlement of the Iraqi-Kuwaiti common borderline issue, there are high possibilities for the realization of a conflict-scenario in which Syria and Iraq will act against Turkey for the water resources of the area.

It must be said here that, from our point of view, we consider the

2. "Supposed" if we take into consideration the evolution of the modern ballistic and arms' technology, as well as the weaponry possessed by the neighboring countries.

3. See Joe Stork, *Water and Israel's Occupation Strategy*, MERIP Reports 9 July-August 1983), 19-24.

cession of the Golan Heights to Syria by Israel as highly possible. The defensive value of the Heights is no longer subsisted. The evolution of the arms technology -especially the one of ballistic systems- , shows that no one is any longer sale from middle- and long-range weapons. The Gulf War proved clearly the fallacy of the once followed military doctrine, that of the "strategic defensive depth." The Israeli and Syrian artillery had confronted each other many times after the invasion of Israel in Lebanon in 1982. It goes the same for the infantry. These conflicts were held on Lebanese ground -passing round the Golan heights- and made clear that Golan may not impede the maneuvers of any of the two adversary armies; for instance, the Syrian Forces can advance into Lebanese ground and attack Israel through the Bekaa valley, under Syrian control, or by following the Jordanian border, in the South of river Jordan in the Beit Shean valley. The advantage of the "strategic depth" -that prevails among the military defensive elites of Tel Aviv- could be valid only in any World War II-like ground operations and only if the above described alternative passages would not exist. Even USSR in 1991, just before its breaking-up, had abandoned the plan for a massive strategic ground attack against NATO in Europe and had developed a more realistic defensive doctrine based on the power and the range of its ballistic weapons. It is also known that Syria disposes an important quantity of "Scud" missiles; more advanced technologically than the ones launched by Saddam Hussein against Israel. Therefore, Damascus is able to hit any target in Israel overcoming any Golan-type defensive zone. Today distances of 400 or more miles constitute no more an obstacle for a successful military operation because these distances do not represent any longer safe zones against air-raids or missile-raids. For this reason, a modern and effective defense for Israel is based upon an always improvable satellite information-receiving system, modern early warning electronic systems, etc. With these and with the presence, at the same time, of a UN International peace-keeping force, for instance British-French-American, the gathering of big military forces cannot pass unobserved.

After the re-appreciation by Mr. Rabin of the new conditions that characterize the Golan issue, nothing seems to prevent him, today, from exchanging the Golan Heights for a continuous and stable peace between his country and Syria. Only a stable and continuous peace can create the psychological, and subsequently the political conditions

that will permit the elaboration of common programs concerning the exploitation of the water resources in the area. In this way, they will face the periods of dryness that, from now on, will hit them more and more. The possibility of a fulfillment of a peace of this kind is augmented if we consider the recent restoration of the relations between Jordan and Israel and, also, the good relations between Egypt and Israel since the Camp David Peace Treaty (1979).

In the Arab world, few countries remain to restore their relations with Israel. This procedure is obstructed by the present occurrences that do not favor the Arab aims towards Tehran, a Tehran that could develop -through the movements and the organizations that it controls- to be a serious factor of destabilization for the Gulf Oil monarchies and the economic structures of the West. But the actors, except Tehran, that profit by a prolonged Arab-Israeli conflict are few and by now rather identifiable.[4]

1.2. The diplomatic, natural and strategic difficulties in the attainment of a mutual acceptable legal framework for the distribution of water

The problem of attaining such a legal framework is not simple, as it will be analyzed. The water distribution networks on Israeli ground and those on the occupied territories are so closely interconnected that it is impossible, technically, during the Palestinian-Israeli discussions the relevant adjustments to precede the legal settlement; the latter would signify the disengagement of the Israeli side from the occupied territories. Undoubtedly, the issue of Israeli and Jordan interests' in the "Yarmuk river triangle" is similar. On the other hand, if we take into account the statement of the Israeli general Eytan (former Minister of Agriculture during the Likud administration) that makes clear that Israel must not accept the withdrawal from South Lebanon since "*the loss of control in these areas would signify the loss of control over water*", we can better understand the choice of Damascus to use the so-called "empty seat diplomacy", during the multilateral negotiations,

4. For instance, Turkey that seeks after the creeping instability in the region, so that it can increase its strategic roots as a metropolitan guarantor power of peace and stability in the Fertile Crescent area.

until the withdrawal of Israel by the occupied territories was discussed on the basis of the UN's Security Council resolutions, No 242 (of 1967) and 338 (of 1973).[5]

The management of the water resources in Middle East constitutes a permanent and very old problem. As Mr. T. Naff mentions: "*Given that the trust between the region countries is limited and there exist conflicts, the issue of the water distribution is a tension factor for the controversies. In a period that the demand for water rises, its lack and its distribution will form very soon the two main problems in the Middle Last. If the politicians in the USA and the Middle East underrate or under-estimate the water issue, they will do it only by putting their national interests in great danger. The Jordan River valley is the best case study concerning the urgency of water problems in the Middle East*".[6]

The area in its greater part is infertile or semi-fertile. The rainfall is erratic and uncertain. With the present rate of consumption, the existing water resources (renewable or not) are no longer enough to satisfy the rising demand owing to the demographic increase and to economic needs.[7] Besides, water presents some distinctive features as a modern issue of security and international relations:

-water has always been related to territorial security, especially in periods of scarcity, since the parties concerned were feeling obliged to control the ground through which (or under which) the water was flowing.

-the relation between water dependence and security is conceived as absolute, i.e. the total importance of the first annihilates the second, particularly when two competing parts, or more, fight for the same water source.

-as a subject of absolute security, water bears a constant potential of conflict.

5. As stated by the Israeli Professor of Hydrology Mr. Uri Samir: "If there is a political will for peace, then water won't be an obstacle. If you want reasons for a conflict, then water will give you many", *National Geographic*, vol. 183, no.5 (May 1993), 38-70.
6. See the memorandum of T. Naff, Professor of Geography in the University of Pennsylvania, submitted to the subcommittee of External Affairs of USA-Subcommittee for European and Middle Eastern subjects on 26/6/1990. Underlining was made by the author.
7. According to quantitative data of the International Bank, the population increase rate in the Middle East area is estimated to rise by 55%.

-because of their complexity, water issues tend to be dealt partially not only in the interior of the countries but also in international level, in this way, they are divided into strategic issues and issues of international interest.

-international law, as a means of settling and regulating the problems on water, remains undeveloped and relatively inefficient, unless there are any agreements apart.

-the strategic reality of water lies in the fact that whenever it is extremely rare (as it is predicted by studies for the Jordan River Valley) it becomes an issue of high symbolic, contagious, accumulated, intense, prominent and complex importance related directly to power and authority, particularly prone to conflicts and extremely difficult to solve.[8]

Increases in population size, the intensification of agricultural production, industrialization and the effort of improving the standard of living, all require more water. Dryness and pollution reduce the water reserves, whereas war and bad management waste it.

As testified by J. Kollars,[9] the population of Middle East and North Africa (with the exemption of Maghreb) depends for more than 50% either on the water of the rivers that flow interborderly between many countries before being available for consumption, or on desalinated water and water drawn from underground springs. Furthermore, two thirds of the Arab world in the same area depends on the rivers that originate from non-Arab speaking countries, whilst 24% of this population lives in areas that have no surface waters. Consequently, these people depend either on the rapidly exhausted springs or on sea water, the desalination of which in sufficient quantities is very expensive. In addition drawing and transportation of water to places of use is very expensive.

The number of people that depend on water is increasing in high rates. The data of the International Bank mention 217.4 million people in the area, for 1983.[10] According to the more conservative estimations, this population will increase by 119.6 million people in 2000,

8. See T. Naff, 1990, *op.cit.*

9. See the memorandum of J. Kollars, Professor of Geography and Near Eastern Studies in the University of Michigan, Ann Arbor, submitted to the Committee of External Affairs of USA-Subcommittee for European and Subcommittee for European and Middle Eastern subjects on 26/6/1990.

10. Professor Kollars includes Egypt as well in the countries of Middle East.

namely by 55%. All these people will need water, not only to drink but also to use in the industry and their urban activities, and also for irrigation to produce a surplus of food before turning to imports. And they will, certainly, think that imports cannot support them forever.

Nations like Israel and Jordan are rapidly sliding into a situation that forces them to use all of their water reserves. "They have 15 to 20 years before their agriculture, and finally the security of their food, is threatened", states Dr. Kollars.

The situation in the area becomes more serious due to the anti-economic and strategic choices in the water policy of all countries: the biggest part of water is used in agriculture. In this way almost 70% of the water consumption in the whole region is wasted in irrigation, in order to increase agricultural self-sufficiency and decrease, consequently, dependence on imports of basic goods. This policy of "safety food reserves" is leading to a substantial decrease of the already limited water reserves. At this moment, in particular, the marginal added value on water is lower for agriculture than for other sections of the economy. Any effort of subsidizing water consumption of the latter against agriculture could have serious consequences that may threaten the political stability of the region.

So, water, in spite of its huge importance, has never been considered, until today, as a good of specific value and specific price. In this way, water is provided to the farmers in prices subsidized in great extent. Under these circumstances it is not easy to promote any water-saving measures through an increase in consumption prices, whereas, on the other hand, re-disposal and reconstruction of the infrastructure requires big investment. Another problem is that the management of the water reserves is, usually, entrusted to adversary administrative mechanisms and institutions.

The above practical side of the problem is withheld because of the political tensions, and is also aggravated by the lack of a suitable framework of understanding. In fact, the location of the water reserves ignores the political borders, something that compels many countries to claim the right of using surface water, as well as the underground water reserves that lay astride on the space between their frontier zones. Despite that, there is not a legal institution responsible and recognized in international level, entrusted with the settlement of such problems.

The only way of resolving the "right of use" problems remains, until today, the conclusion of multi- or bilateral agreements that lead most

of the time the interested countries to a "modus vivendi" based on the principles of good neighboring and equal exploitation. Whatever the difficulties of application may be, the respect of these two principles constitutes the necessary presumption for any assistance program.

The above practical sides of the problem are clear in the entire Middle East with a particular dimension and strain in the valley of the Jordan River, i.e. in the heart of the problem. The political leaders of the region face over the long term two main challenges: a) how to cope, on the one hand, with the always increasing rarity of water and, on the other, how to increase the available quantities of new water reserves, and b) how to create a commonly acceptable framework for exploitation of disputed water resources, based on respect of everybody's needs and rights.

Israel, a state considered as a key-factor of the problem, estimates that above all its side is the only responsible, relatively to these two factors, to dictate the pace and the contents of the negotiations. Its Arab interlocutors, consequently, accuse Israel of controlling all the tributaries of the Jordan River, as well as these areas of the Litani River that lay within the "security zone" in south Lebanon. Jordanians and Palestinians demand the respect of their historical rights on the Jordan River. Moreover, the Syrian-Jordanian project of building a dam on the Yarmuk River -already rejected by Israel-[11] has been silently and adequately undermined by Syria.

The important testimony of Professor T. Naff (1990),[12] before the External Affairs Committee of USA states the following: "*The threat of a crisis related to the water of the Jordan River is more and more intensified lately.* **If this won't be blunted, it is very probable that soon an internal destabilizing conflict will break out with enormous regional and international consequences.**[13]

11. I quote: "Some years ago, when Israel faced a fall of the water level of the Dead Sea, several solutions were proposed, the most known being the Mediterranean-Dead Sea Project (Med-Dead Project) and the Red Sea-Dead Sea Project (Red-Dead Project). As these two projects were quite costly, a cheaper solution was suggested: bombing and attack of the water supplying installations in the Yarmuk River in NE Jordan. With this solution large quantities of water were released through the Jordan River to the Dead Sea". (Thomas Naff & Ruth Matson, *Water in the Middle East: Conflict or Cooperation*, Westview Press, Boulder, CO and London 1984, 6).
12. See the memorandum of T. Naff, 1990, *op.cit.*
13. Underlining was made by the author.

This crisis is founded on the particularly serious problems of water insufficiency and quality in the valley of the Jordan River. The main riverine countries there, Israel and Jordan, consume approximately 115% of their total usable reserves of water. Studies anticipate a prolonged lack of water and an over-exploitation of its reserves over the short and the long term until 2015, unless immediate and drastic measures, politically strenuous, are taken all along the valley.

The consequences of the continuing lack in water have already taken serious dimensions in the Jordan River valley and they work in an accumulative fashion. Soon these consequences may be rendered irreversible. Today, neither the already known natural springs nor technology (nor even in the near future) can produce new usable water in the needed quantities and at a tolerable cost. If Jordan and Israel will not solve the problem of the lack of water, they will be forced to lessen their economic and social development. The result will be a rise in the competition not only between the riverine countries, but also between certain areas in the interior of these countries. Special focus will be given on the always decreased quantity of water. Moreover, it will be combined with destabilizing consequences, one of which (and surely not the less probable) could be the significant **increase of the possibility of war between Jordan and Israel, in which all other Arab states could be certainly involved.**[14]

Obviously, the profits from a solution for the whole of the valley are particularly high for Jordan and Israel. Jordan's population is expected to increase by 178%, reaching in 2015 a total of 7 million people from 2.7 million of today. This increase rate is 2.5 times higher than the one it should be symmetrically to the water and economic means of the valley. Should this increase continue without a subsequent increase in the water reserves, strict economic measures and dramatic changes of today's consumption habits, then Jordan will no longer be able to support its population. It will continue to face every year a lack in water even if it will construct the already planned "Dam of Unity" (considering that the current negotiations between Jordan and Israel concerning this project will meet with the intervention of USA with success).

14. Underlying was made by the author. The efforts of Israel and the US, in this way, to conclude a peace agreement between Damascus and Tel Aviv are easily explicable. Fortunately, these efforts were brought to a successful end.

Although the increase rate in the population of Israel is much lower than the one in Jordan and the Occupied Territories, the Israelis consume 5 to 6 times more water in comparison to their neighbors (280-300 liters per person every day).

One of the most charged politically aspects in the issue of "lack of water in the valley", is represented by the uncertain ability of Israel to absorb smoothly the current of the Russian-Jewish immigrants that is estimated to reach one million. For the time being, the possibility for the water quantity in the valley -at Israel's side- to suffice for one million people, consuming 280 liters per person every day, appears improbable. The water reserves in the occupied territories are already over-exploited in a rate of 100 million m^3/year. The settlement of a big number of immigrants in the area could only lead to the intensification of the present problems.

The present difference in power among the riverine countries in Jordan River (Jordan, Israel and Syria) makes improbable an immediate conflict over water. Nevertheless, water issues are always in the center of the strategic plans of all these countries: water has become a military issue and the problems related to it contribute a lot to the tension. The more the water- reserves in the valley decrease, the more the possibilities for an open conflict for them increases.

Should the present policies and consumption features continue in Jordan and Israel, then before the end of the decade, an ascending pyramid of crises related to water shall ensue, **probably until 1995-97.**[15] *In particular, if the economic situation becomes more difficult or if a period of dry weather conditions occurs (that is certain, if we consider the Valley's history), the gravity of this crisis could turn today's moderate climate into a conflict. If this happens, the water issue will be combined with other innate factors of destabilization and enmity that prevail among the riverine countries, and* **the breaking out of a war caused by water is almost certain, a war extended beyond the Valley.**[16] *King Hussein has unofficially declared that he can see only a few reasons for a war conflict with Israel, but he would feel obliged to fight for water despite the almost certain prospect of defeat.*

If Israel and Jordan will not be able to apply soon any effective measures for the limitation of the water consumption, then they won't

15. Underlying was made by the author.
16. Underlying was made by the author.

be able to cope with the developing needs of their societies. Whatever the combined measures may be, a part of the whole procedure must be economic restructuring to a degree and limitation of population increase.[17] *Interventions of this type always provoke social changes and troubles. Consequently, a water-related crisis shall probably provoke internal political problems, political changes, political fundamentalism and instability for the coming decade, instead of war conflicts between the riverine countries (which are possible, of course). All these developments could have a negative impact on the interests of the USA*".

Despite the tragic conditions described by the Professor, all efforts for concluding an agreement concerning water distribution between the riverine countries have failed.

Another subject for discussion is also the problem of the control over underground water reserves in Jordan River Valley. Israel uses in great extent the springs of the West Bank, where relative restrictions on consumption for the Palestinians have been imposed since 1967, whilst same measures for the Israelis have been adopted more recently.

As far as the Gaza Strip issue is concerned, we should note that its inclusion in the Jordan Valley issue is due only to political and not to hydrological reasons. Moreover, pollution of the underground waters in Gaza leads to scarcity of drinkable water, whereas the importance of this scarcity constitutes an additional burden for Israel.

2. Disposable resources and the exploitation of water in the region

The water resources that represent the subject of the negotiations in course are especially limited. In Middle East there are four ways to obtain water: i) rainfalls, ii) exotic rivers (the size of which increases in the rich-in-water areas and decreases during their flow to the sea through deserts or continental beds), iii) water-bearers (underground waters and the solid porous underground rocks), and iv) desalinated sea-water.

17. Today 3.5 billion out of the total 5.5 billion people of the planet are forced to live with less than 50 liters per day/person. This quantity equals 14% of the quantity that the average American uses. See Eugen Linden, «The Last Precious Drops», *Time*, 5/11/1990.

Turkey, Lebanon and certain regions in Iran dispose sufficiency in water reserves, with the aid or rainfalls, something that helps considerably their agriculture and irrigation. It is precisely from these countries that the exotic streams flow to the neighboring Arab countries. Most important in this framework are the rivers: Tigris, Euphrates, Asi (or Orontes) and the underground waters that supply the Hasbani springs of the Jordan River. The same situation is present in the south areas of the region where the summer monsoons, which blow from the Indian Ocean to the plateau of India, bring life to North Sudan and Egypt, causing the annual floods of the Red Nile. In the equatorial lands there is a constant reception of water from the rainy tropics that provides all year the White Nile with a steady flow; the river joins Red Nile in Khartoum (Sudan). From this point on and until the Mediterranean the joined waters form a spring of life for North Sudan and the entire Egypt.

Middle East and North Africa are, therefore, similar in the sense that in their North and South there are regions with considerable water reserves, from which the exotic streams and rivers originate, and on the flow of which millions of Arabs depend. In the areas beyond the reach of the exotic streams, especially in the Arab peninsula and in the Sahara Desert in Libya, millions of Arabs depend on the springs and desalinated water. Let's consider the fact that the area beyond the southern borders of Jordan and Israel extents to 3.005.6332 Kms^2 and does not dispose a single and permanent surface water-stream. It should also be noted that the central axis of the region's fluvial system, the Jordan River, provides the Dead Sea only with 1.300 million m^3 water/year. The tributaries of Upper Jordan are Hasbani River, the Dan spring in Lebanon and the Banias River that flows from Syria through the Golan plateau. The biggest quantity of the Upper Jordan waters, hoarded in Lake Tiberias (Sea of Galilee or Lake Kinneret), is collected by the Israeli distribution water network "National Water Carrier".

The sacred Jordan River is joined tip, 10 Kms before it flows into Tiberias, with its main tributary, the Yarmuk River, which comes from Syria and flows across the Syrian-Jordan border traversing the Antisiva Triangle. From this point downwards, all the other tributaries of Jordan River, in the west as well as in the east, become insignifi-

cant springs and temporary water streams.[18] On the other hand, the Lower Jordan water (in its outflow in Tiberias) is highly salty.

The entire flow of the Litani River that has average water supply of 700 to 900 million m^3,[19] traverses the Lebanese area from the Bekaa Valley to the coastline in the Mediterranean. The biggest part of Litani water has been diverted towards the Avali River in order to provide a hydro-electrical station. Some parts of the Litani River and the spring Uazani, that supplies the Hasbani River, are flowing within the Israeli "security zone," in Southern Lebanon.

The rainfall, prominently light during the 80s, had marked in the 90s its lowest point resulting to the lowering, by 4 meters, of the water level in Lake Tiberias. On the other hand, the heavy rainfall in the period January-March 1992 caused big floods and disasters because of the inability of storing the rain water. The winter of 1991-1992, one of the coldest and most humid in the area's history, had brought a temporary relief in the long period of dryness.

The data related to the use of surface waters by the countries of the region is in its entity dubious, as long as it serves its argument to support the demands of the countries that are based on "historical rights'". In this way, this data must be read carefully.

3. The legal status of the transboundary distribution of river water

Until today there are no complete legal provisions on the international ratification for the use of the international rivers for any other reason but navigation.[20] The terminology itself is contradictory, for instance: any water flow, surface or underground that traverses

18. See A. Soffer and N. Kliot, «The Water Resources of the Jordan Catchment: Management and Options», *Minutes of the Annual Conference of BRISMES*, 1991, 205-210.

19. See T. Naff, *Science and Technology* (in Arabic), July 1991; J. Kollars, *The Litani River in the Context of Middle East Water Resources*, a proposal presented in the Conference for Water Resources and Security in S. Lebanon, RIIA, October 4, 1991, 3. J. Kollars estimates that the annual supply from Litani amounts to 920.153 million m^3, according to the data of the Associates for Middle East Research.

20. See the Barcelona Convention, 1921.

the frontier of two countries is considered as "international"[21] or "transboundary"[22] or "international river network"[23] or "international river basins".[24]

The General Assembly of UN in 1970 charged the UN's International Last Committee with the task to "*study the law regulations that will govern the international water courses for purposes other than of navigation, in view of a gradual development and codification of these law regulations*".[25] The proceedings of the Committee have not yet finished, and the study for their making new proves the difficulty that is linked with the elaboration of a new general international law that will determine the specific obligations of the countries. These obligations would, inevitably, be interpreted as limitations to national sovereignty.[26] A first draft plan has been submitted to the General Assembly by the Committee in April 1992.[27] The text proposes at the article 2 the following definitions:

a) "International watercourse" denotes a water course, parts of which are situated in different States:

b) "Watercourse" denotes a system of surface and underground waters constituting by virtue of their physical relationship a unitary whole and flowing into a common terminus.

c) "Watercourse State" denotes a State in whose territory part of an international watercourse is situated.

The results of the research of some legal firms of International Law, that wanted to establish a guidance on the use of the river waters traversing more than one country, came to the adoption of "equal use"[28] and to the principle of *sic utere tuo ut alienam non laedas* (one country cannot use or permits the use of its territory in such a way that neighbor countries can he noticeably harmed).

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21. Internationaux.
22. Transfontalier.
23. Reseaux fluviaux internationaux.
24. Bassins fluviaux internationaux.
25. See Resolution 2669 (xxv) of December 8, 1970.
26. See Patricia Burette, «Genèse d'un droit fluvial international général (utilisation à des fins autres que la navigation)», *Revue général de droit international public*, v. 95 (Janvier 1991), 5-68.
27. See Draft Articles on the Law for the Non-navigational Uses of International Watercourses, A/46/405, April 1992.
28. Utilisation équitable.

All these proceedings are based, in great part, on the fundamental doctrinal conception expressed by scientific societies, such as the already mentioned International Law Society which during its meeting in Helsinki in August 1966 adopted a resolution text known as the "Helsinki Rules". These rules put forward some new views that were taking into consideration the notion of "resource unity/unité de la ressource" and placing it even above the "regional divisions" that are prerequisites for the notion of "sovereign States". The same happened, also, with the notion of "international drainage basin/bassin de drainage international". According to Article II of the above text, the definition of an "*international drainage basin" is the geographical zone extending to more than one countries and is defined by the limits of the hydrographical systems zone of supply, comprising also the underground or surface waters that flow into a common terminus*" (See Helsinki Rules on the uses of the Waters of International Rivers).

At the Article IV is formulated that "every State of the basin, on its territory, can avail its right of beneficial use (utilisation avantageuse) for a reasonable and equitable (une part raisonnable et équitable) quantity of the waters in the international drainage basin".

Article V clarifies that 'the definition of the notion of reasonable and equitable quantity, of article IV, is carried out under the scope of all relevant factors (facteurs pertinants) that interfere with the examination of every particular case".[29]

The "relevant" factors for the states in the region are the following:

a) the shape of the basin and in particular the size of the basin area of supply (aire d'alimentation) which is included in the territory of every riverine state concerned, b) the climate, c) the former and the present use of the water reserves by the states concerned, d) their social and economic needs, e) the population that depends on the water reserves each time, f) the possible waste of the reserves, and g) the possible indemnities as a means of settling the differences between the users of the reserves, and also the earlier mentioned principle of *sic utere tuo ut alienam non laedas.*

According to Article VII "*a basin State may not be denied the present reasonable use of the waters of an international drainage basin to*

29. See Abdel Kahman Ismail al-Salhi, 'Le bassin du Nil, étude juridique', presentation at the international conference for the Nile Basin, Cairo, March 1987; also Ministry of Foreign Affairs of Egypt, "L'Égypte et le Nile", Organisme d'Information d'État, Bureau de Paris, Juin 1982.

reserve [besides the reasonable use][30] *-to a co-basin State a future use of such waters*".

Furthermore, Article VIII tries to clarify, with the use of very abstract notions and terms, the notions "reasonable use" "operational use/utilisation opérante" and the "existing use/utilisation existante». Likewise, the article tries to designate some parameters that are able to evaluate these notions, for instance, modification of the existing situation and appearance of new needs, the development with all means of the existing reserves that are already under exploitation or will be exploited in the future, etc.

However considering the absence of a clear and internationally acceptable convention, all the above principles are subject to different interpretations that vary following to the interests of the states that interpret them. A predominant example is the legal status of the Nile which according to Addis Ababa's interpretation is not navigable in its entire length, an opinion not shared by the Egyptian side.[31]

All these principles are supported not only by the International Law Association (ILA), but also by the Pan-American Lawyers Association and, of course, the International Law Committee of UN.[32] The problem, nevertheless, of the settlement of the sovereignty rights among the riverine states in these waters (especially for these states that control the uphill springs) remains serious and until now unsolved.

Turkey, for instance, lays claims to the entire sovereignty of the waters that originate from its territory and is qualifying Tigris and Euphrates as "transboundary rivers/fleuves transfrontaliers" and not, naturally, as "international". Turkey denies, categorically the perception of acknowledging the "river basin" as a uniform whole that stands above the notion and the right of the riverine countries for "national sovereignty". Moreover, Turkey does not recognize at all the co-possession with the rest riverine countries of the rivers and the tributaries,

30. The explication is made by the author since the text is vague in its language.

31. See Habibi Ayeb, «La vallée du Nil: un grand axe géopolitique», *Maghreb-Machreq* No. 138 (Oct.-Dec. 1992), from which a brief presentation was made upon the draft proposals concerning the international legal status on the use of water reserves by riverine states.

32. In the last preliminary draft (1991) of the International Law Committee on the legal status concerning the use of non-navigable waters, the Committee insists on the "reasonable and equitable use/utilisation équitable et raisonnable" of the waters, aiming at "optimum exploitation/exploitation optimale".

but thinks that the solution of these problems is based on good will and bilateral agreements, on the logic of the "reasonable and equitable use of the waters". Naturally, these views are accepted neither by Syria and Iraq nor by any other international court of justice.

Today we accept *de facto* that all differences concerning the rights of the riverine countries on the use of the water that originate from international rivers are solved on the basis of bilateral or even multilateral agreements whose provisions do not necessarily constitute a judicial practice.

All the above references of international law are primarily concerned with surface waters; however Caponera and Alheritiere[33] state that the gradually elaborate judicial practices and principles for the surface waters can also be applied proportionally to the underground waters.

In this way even if the Helsinki Rules mention underground waters only superficially, the Bellagio draft-treaty of 1989[34] that concerns underground waters is promoting a very skilled elaboration of this issue in such a manner than today the fact that all the principles mentioned are valid for the ground and the underground waters alike is absolutely acceptable.

So, neither the usual practice of the peaceful countries nor the International Law on waters seems to support the opinion according to which a country can secure the rights on its quota of the water reserves only with the physical occupation of the territories from which derives a part or the whole of the reserves. The result is the increase on the indicators of "geopolitical instability" in the "hot" M. East.

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33. See Caponera, D. and Alheritiere, D., «Principles for an International Groundwater Law», Natural Resources Forum DC-749, United Nations, New York 1978.

34. See Haston, R.D. and Utton, A.E., «Trans-boundary Ground Waters: The Bellagio Draft Treaty», *Natural Resources Journal* 26 (1989), 663-722.

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