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Prospects for ‘Cooperation v. Dispute’ Over Water in the Middle East

yaser yousef khalaileh

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Dr. Yaser Khalaileh - Associate Professor in Law
College of Law - Qatar University - Qatar
Email: khalaileh@qu.edu.qa

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Abstract
This paper addresses the prospects of the applicability of Watercourse international regime to achieve cooperation in the Middle East region. In so doing, an assessment of the environmental status of the water medium in the Middle East, and the main reasons for its deterioration, is to be made; an illustration of the basic international law rules that are specifically related to the use of international watercourses is to be deciphered; the extent of protection afforded to this medium under international law is then analysed; and an attempt to discuss the available possibility for applying international laws related to watercourse to the situation in the Middle East shall finally be concluded. However, consideration will be limited to only one part of this region, i.e. the Jordan River, rather than the entire region’s drainage basins. It is hoped that this limitation will not entirely detach the applicability of results on other surrounding controversies, such as the ones between Iraq, Syria and Turkey over the Euphrates and Tigris Rivers, or the potential conflict between Egypt and Sudan, or even the upper Nile States. All watercourse systems in this region could well be selected, and it is suggested that transference of results to other water basins would not affect the overall analysis in this study. Yet, the potential Peace Negotiations with the states neighbouring Israel, that should most practically ensure resolving the water apportionment issue, makes the application of the Watercourse Convention particularly on Jordan River most desired. It is also suggested that the negotiations to settle water disputes, so as to provide an equitable distribution of the water resources, will either become a source of contention, if not more catastrophic wars, or a base for mutual co-operation and co-existence. This paper seeks to provide some guidance to settling these issues in the regions’ future and further peace negotiations.

Key Words: Law, Watercourse, Jordan River, Claims, Co-operation.
Introduction

It is generally appreciated that water scarcity and pollution in the Middle East is highly a propelling and complex issue. In particular, in light of the intensively long negotiated Middle East peace process, water scarcity and pollution, stands out as one of the most pressing issues from both environmental and political perspectives. Unlike other environmental problems, the depletion and degradation of this source stays as one major cause for political instability in the region.¹

Whilst there are specific factors behind the water crisis in the Middle-East, estimates disclose that over 50% of the population in this region, excluding the Maghreb, depend either on water from rivers which cross an international boundary, or upon desalinated water and water drawn from deep wells.² Millions of people face daily problems with obtaining water for drinking, cooking, bathing, and washing. More than 25% of the population of Egypt, Sudan, Algeria, and Yemen are estimated to be without access to uncontaminated water, and an unknown yet large proportion of people have to spend hours each day collecting water. Cholera and typhoid related to contaminated drinking water are common in Egypt, Sudan, and Yemen.³

In general, water related problems in the Middle East can be attributed to three factors: natural, economic and political. Annual water supply in the region is neither reliable nor plentiful;⁴ the climate is largely arid or semi-arid with average rainfall levels of less than 250 mm/yr., except on the Mediterranean coast and upland areas of Lebanon, Syria and Iraq.⁵ Over 70% of water supplies in the Middle East are allocated to irrigated agriculture to increase crop yields, and farmers in particular have tended to enjoy substantial water subsidies or even, as with farmers on the Nile valley and delta in Egypt, receive water virtually free of charge.⁶ The importance of the

¹ However, the bilateral negotiations between Israel and, respectively, the Palestine Liberation Organization (PLO) and Jordan, the interaction between Arabs and Israelis has had, for the first time, the potential to be dominated by co-operation rather than conflict. This innovation was clear in the signing of the 1993 Declaration of Principles between Israel and the PLO and the 1994 Washington Agreement between Jordan and Israel. These were based on the premise that these issues cross boundaries and both require multilateral co-operation and have the potential for providing mutual benefits. See these and the preparation for them in the Bulletin of Regional Co-operation in the Middle East, (Washington, DC: Search for Common Ground, 1995). Also, the issue of the Golan Heights has attracted both Israel and Syria to engage in a peace treaty negotiations through Turkish mediation. See: Allegra Stratton, Assad Confirms Turkish Mediation with Israel, Guardian, April 24, 2008, available at: http://www.guardian.co.uk/world/2008/apr/24/syria.israelandthepalestinians. The Israeli government has announced that it would be willing to withdraw from the Golan Heights as part of a comprehensive peace treaty. See, Ethan Bronner, Israel Holds Peace Talks With Syria, N.Y. Times, May 22, 2008, at A1; also, Timeline: Israel and Syria - Conflict and Negotiation, at: http://www.nytimes.com/interactive/2008/05/21/world/middleeast/20080521_MIDEAST_PRIMER.html [hereinafter Timeline]. See generally, Babriel Eckstein, Water Scarcity, Conflict, and Security in a Climate change World: Challenges and Opportunities for international Law and Policy, Wisconsin International Law Journal, 2010.

² J. Kolars, The Course of Water in the Arab Middle East, 33 American Arab Affairs 1990, pp. 57-68.


⁴ Strategic agendas in the Middle East made water resource management and allocation highly sensitive issues and hence water-related data has become politically sensitive too. Therefore, precise figures for water availability or consumption are disputed and are not presented to a satisfactory extent. As a result, figures quoted in this paper should be treated accordingly and are used to illustrate only general trends.

⁵ Only Turkey and Iran enjoy a relative water surplus.

⁶ See P. Bereck and J. Lipow, Water and an Israeli-Palestinian Peace Settlement, in S. Spiegel and D. Pervin, supra
agriculture sector to national income generation and employment is declining steadily in most Middle East countries. Yet, despite falling productivity in most cases and widespread drought, government investment in dam and irrigation projects and in the cultivation of cereal crops increased throughout the 1980s, motivated by fears of growing dependence on food imports.

Moreover, for political reasons, certain policies and objectives favouring specific lobbying groups and private ends, has made use of the term ‘food security’ disregarding poor economic returns. As such, farmers in Israel form a strong political pressure group. Also, the Iraqi government during the late Saddam’s domination has planned to build a ‘third river’ between the degraded agricultural land, draining marshland areas which have provided a haven for opponents to Saddam Hussein’s regime. In Libya, one of the principle objectives of the Great Man-Made River project is to supply water for irrigation and other uses in the Sirte region, though outside the traditionally cultivated zone, simply because it is the home area where the late Libyan leader Colonel Gaddafi’s family. Such corrupt political achievements, now inherited by the National Transitional Committee, have led to an incompatibility of these projects with emerging environmental standards.

Water related problems are also worsened by the nature of the cross-boundary course of the rivers in the region. Being characterised as ‘international waters’, due to their passage through two or more boundaries, rivers were not efficiently managed. It seems that there is no structure of communication between the neighbouring states to formulate an integrated policy towards water management. Despite the intensive efforts, no formal protocols existed among all riparian states for the Nile, Yarmouk, Orentes, Al-Kabir, Jordan, Tigris, and Euphrates rivers. It is envisages that if current circumstances persist, most of the downstream riparian states in this

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8 Many Middle East countries have been promoting a policy of food security and self-reliance as a national economic goal.

region will experience a severe deficiency in the quantity and/or quality of water resources.\textsuperscript{10}

On the contrary to that, concerns over decreasing water supplies in the Middle East have been widely sloped as the next cause of conflict in the region.\textsuperscript{11} For instance, the mere idea that a Jordanian/Syrian plans evolved to divert the head-waters of the River Jordan were probably one main cause for the 1967 war between Israel and the Arab World.\textsuperscript{12} Israel’s systematic exploitation of water resources of the Golan Heights and the West Bank\textsuperscript{13} is probably the reason for the Israeli reluctance to ponder a peace agreement based on the exchange of land for peace, and that the control of the flow of the River Litani could well be the reason for Israel’s recurrent occupation of southern Lebanon.\textsuperscript{14}

It is not only in the context of the Arab-Israeli confrontation that the issue of water resources is a potential cause of further conflict. In October 1991, Egyptian Leader Anwar el-Sadat threatened military action against Ethiopia if it “touches the waters of the Nile River”. This threat was made in the face of Ethiopia, which controls 85% of the Nile’s higher flow, and implicitly Sudan, through which the Nile passes.\textsuperscript{15} Elsewhere, Syria has in the past threatened to attack dam facilities in Turkey, while its own use of water from the River Euphrates has been a source of dispute with Iraq.\textsuperscript{16}

In sum, water related issues in the Middle East are distinctly complicated and are aggravated by characteristics that distinguish it from other mutual affairs. Because water is essential to


\textsuperscript{11} See for example, T. Naff and R. Matson, \textit{ibid.}, at pp. 1-21; J. Starr and D. Stoll, \textit{US Foreign Policy on Water Policy in the Middle East}, (Washington, DC: CSIS, 1987), p. 11; and J. Starr and D. Stoll, \textit{Water for the Year 2000}, in J. Starr and D. Stoll, eds. \textit{The Politics of Scarcity}, (Boulder, CO: Westview Press, 1988), p. 149. Leading political figures such as the late King Hussein of Jordan, former President Turgut Ozal of Turkey, former president Anwar Sadat of Egypt and former UN Secretary-General Dr. Boutros Ghali (when he was Deputy Foreign Minister of Egypt) have all referred to water in the Middle East as a \textit{casus belli}, while at other times these same figures have described water as an excellent focus for inter-state co-operation. See \textit{Jerusalem Post}, 16 November 1991, and \textit{Arabies}, July/August 1990, p. 47. In 1990, King Hussein delivered a speech of solemn public warning to Israel saying that “the only issue that will bring Jordan into war is water”, \textit{Al-Dostour Newspaper} (Amman-Jordan), 9 May 1990, p. 7.


\textsuperscript{13} In 1984 Israel’s total water resources were 230 mcm, and by 1964 this figure increased to 1288 mcm and by the end of 1980s rose to well over 2000 mcm. In 1982, the water resources of the West Bank were completely incorporated with Israel’s water company Mikarot. See various figures in A. Tamimi, \textit{A Factor for Conflict or Peace in the Middle East}, Arab Studies Society: Israeli-Palestinian Peace Research Project, Working Paper Series, no. 20, 1991-1992.

\textsuperscript{14} F. El-Refoue, \textit{The Water Role in the Arab-Israeli Peace Talks} (Arabic), 3 The Political File / Al-Dostour, 4 August 1996; K. Ebriam, \textit{Arabs and Eater}, (Arabic), 4 The Political File / Al-Dostour, 4 August 1996.


\textsuperscript{16} \textit{Al-Dostour, Ibid.}
existence and to the quality of life, no issue is as all encompassing as water. Certainly, where two or more hostile actors compete for the same water resources, water dependency and security become innately intertwined.¹⁷

1. International Law Specifically Relevant to International Rivers

In order to determine the current positions of the Middle East countries to their water crisis from a legal point of view, and to decipher possibilities for future reform on national and regional levels, it is imperative to reiterate the relevant international laws to the utilisation of shared water resources between two or more states.¹⁸

2.1 Possible States’ Claims over the Utility of a Shared Water Resource

To begin with, it is to be noted that international law on the use of shared water resources is still open to a variety of interpretations. Developing international water law that is acceptable to all nations has proven to be extremely difficult and has evolved over years of effort by the various organisations. For nations sharing river basins, factors affecting the successful negotiation and implementation of international agreements include whether a nation is upstream, downstream, or sharing a river as a border, the military and economic strength of adjacent nation, and even the availability of other water supply sources.

Since the beginning of the 20th century, scholars have debated the utilization of shared water resources in four main theories:⁰ the theory of absolute territorial sovereignty; the theory of absolute territorial integrity; the theory of limited territorial sovereignty or integrity; and the theory of community of interests in the waters.

Traditionally, and this to some extent is true even now, states exercised exclusive sovereignty over their natural resources. This indeed included water found within their territories. It was within many state’s policies that national rivers running exclusively within their frontiers should form part of their territories, and are therefore subject to their exclusive sovereignties.²⁰ This notion has been particularly applied to the portions of international drainage basins belonging to the state, irrespective of the prejudice it might cause beyond the national frontiers. The theory that calls for this is called the ‘absolute territorial sovereignty’ according to which a state is deemed the ‘master of its own territory’.²¹

This theory is otherwise known as the Harmon Doctrine, after the declaration that was first

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¹⁹ For a detailed examination of these theories see B. A. Godana, Africa’s Shared Water Resources: Legal And Institutional Aspects of the Nile, Niger and Senegal River Systems (Frances Pinter Publishers Ltd., 1985), p. 32.
called upon by the USA Attorney-General Judson Harmon in 189,\textsuperscript{22} and was later reaffirmed by the United States Department of State.\textsuperscript{23} This doctrine, however, has proven unachievable due to the competing and irreconcilable water demands. Also, because international watercourses are basically moving water and does not respect political boundaries, making a claim of absolute sovereignty over it is strikingly difficult. Hence, present state practice, including that of the United States,\textsuperscript{24} the great majority of writers, and judicial decisions of international tribunals, have all abandoned this theory as having any legal value.\textsuperscript{25}

In a similar fashion, the second theory, i.e. ‘absolute territorial integrity’, has also been vigorously rejected. Being the direct opposite of absolute territorial sovereignty, this theory meant that a riparian state may not exploit a section of an international waterway in a way that would cause injury to the interests of a lower-basin state. The obvious weakness in this theory is that it allocates rights to one state (the lower riparian state) without conferring any corresponding duties upon it, and therefore placing the upper riparian state in an unfavourable situation.

The third theory, i.e. ‘community of interests’, simply stresses the importance of the drainage basin as being an economical and geographical unit. Accordingly, states with shared boundaries should be given a collective right to act in a manner so that no state may harness the water crossing their territory without prior consultation, and the positive co-operation with, other states sharing the same source. States practice in support of this theory includes the early Decree of the Provisional Executive Council of the French Republic of 16 November 1792, which provided: “the watercourse of a river is the common inalienable property of all countries watered by it”. However, despite the attractions of this theory, the “idea has yet to develop into a principle of international law governing international water relations in the absence of treaties.”\textsuperscript{26}

Currently, it looks like state practice did not yet abandon the doctrines of limited territorial sovereignty or integrity.\textsuperscript{27} The assertion that every state is free to use the waters flowing on its territory, on the condition that such utilisation does not prejudice the territory or interests of other states, is more sound in state practice and international jurisprudence who still pass support to this theory. As early as 1911, the Institute of International Law declared that, as regards international rivers, contiguous or successive,

“…neither of these riparian states may without the consent of the other… make or allow individuals, corporations, etc., to make alterations therein detrimental to the bank of the other state. On the other hand neither state may on its own territory, utilise or allow the utilisation of the water in such a way as seriously to interfere with its utilisation by the

\textsuperscript{22} This declaration concerns the waters of the Rio Grand which forms the boundary between the United States of America and Mexico but the most important part of which is located on the American side of that frontier. See Harmon statement in John Bassett Moore, \textit{International Law Digest} (Washington, Government Printing Office, 1906), Vol. I, p. 654.

\textsuperscript{23} See the US Department of State statement quoted in B. A. Godana, \textit{supra note} 19, at p. 33.

\textsuperscript{24} The Harmon Doctrine has been subsequently disapproved by the US State Department, \textit{Memorandum of the Legal Advisor}, 23 November, 1942, in M. Whiteman, \textit{Digest of International Law}, Vol. III (Washington, DC, Department of State, 1964), pp. 950-54.

\textsuperscript{25} B. A. Godana, \textit{supra note} 19.

\textsuperscript{26} Cited in B. A. Godana, \textit{ibid.}, at p. 49.

\textsuperscript{27} In support of this theory see for example J. L. Brierly, \textit{The Law of Nations}, (Clarendon Press, Oxford, 1955), pp. 204-5, and B. A. Godana, \textit{ibid.}. 

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other or by individuals, corporations, etc., thereof.”

In support of this are statements provided for in the International Law Association, Article 4 of the 1966 Helsinki Rules, the Declaration of Montevideo and many other international and national bodies. All suggest that the theory of limited territorial sovereignty is now a well-established doctrine in international law when the matter comes down to states’ claims over their shared international watercourse.

2.2 The Duties of Riparian States under International Law Rules

Having discussed the sort of claims states would normally deploy in respect of their shared watercourses, and asserting that only a doctrine of limited territorial sovereignty prevails, it becomes essential to explore the state’s obligations in respect of water utilization that are now passed in the realm of customary international law, and are hence binding upon all states. In other words, the duties which sovereign states must comply with even in the absence of a mutual treaty regulating the subject matter.

The bulk of international rules regulating the use of freshwater resources (including rivers, lakes, groundwater and reservoirs) and its contamination by pollution has for so long been set forth in bilateral and regional treaties. For instance, agreements have been concluded between the States of Mekong River, the Plate River, the Niger River, and the Senegal River all testifying...

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33 The law governing international watercourses will take either of two general forms: treaty law or customary international law. In this respect, certain established norms govern the creation process of customary law rules should be born in mind. For this, see North Sea Continental Shelf cases, ICJ Reports, 1969, p. 3 at pp. 32-43; also see the case of Nicaragua v. United States (Merits), ICJ Reports, 1986, p. 14 at pp. 207. To say the least, in referring to its judgement in the North Sea cases, the Court in the latter case observed that: “for a new customary rule to be formed, not only must the acts concerned ‘amount to a settled practice’, but they must be accompanied by the Opinio juris sive necessitatis... evidence of a belief that this practice is rendered obligatory by the existence of a rule of law requiring it.” See; Richard Kyle Paisley & Timothy L. McDaniels, International Water Law, Acceptable Pollution Risk and the Tatshenshini River, 35 NAT. RES. J., 111, (1995), pp. 117-118; Ian Brownlie, Principles of Public International Law, 7th ed., 2008.


37 See Convention Establishing the OMVS (Organisation pour la Mise en Valeur du Fleuve Senegal), Signed at

that a trend of mutual co-operation and joint development of international watercourse is determined. As a result, a plethora of international water management institutions are operating today in all the main regions of the world. It follows, therefore, that where no agreements have been concluded in a specific region, the legal principles and rules, as developed and established in general international law, should be relied upon.

To begin with, it is to be noted that explicit in the limited territorial sovereignty doctrine is a general obligation upon states concerned to ‘equitably utilise their shared watercourse’. As early as 1974, Article 3 of the Charter of Economic Rights and Duties of States state that:

“In the Exploration of natural resources shared by two or more countries each state must co-operate on the basis of a system of information and prior consultations in order to achieve the optimum use of such resources without causing damages to the legitimate interests of other states”.

The 1992 Helsinki Convention (on the Protection and Use of Trans boundary Watercourses and International Lakes) specifies the scope of the general obligation not to cause damage to the environment of other states in this particular field. Long before that, in 1966 the ILA produced the non-binding Helsinki Rules on the Uses of the Waters of International Rivers, providing that each basin state is entitled to “a reasonable and equitable share in the beneficial use” of the waters, in accordance with the relevant factors in each case. States are obliged to prevent new forms of water pollution or any increase in the degree of existing pollution which would cause ‘substantial injury’ in the territory of other basin states, and to take all reasonable measures to decrease existing pollution. It is to be noted, however, that these rules are supposed to govern the use of waters of international drainage systems except as otherwise provided by applicable treaty or custom.

Moreover, the 1997 Convention on the Law of the Non-Navigational Uses of International

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Noukachott on 17 December 1972.

38 UN Doc E/ECE/1267; reprinted in 31 International Legal Materials 1992, p.1312. It states that:

“1. The Parties shall take all appropriate measures to prevent, control and reduce any trans boundary impact.

2. The Parties shall, in particular, take all appropriate measures:

(a) To prevent, control and reduce pollution of waters causing or likely to cause trans boundary impact;

(b) To ensure that trans boundary waters are used with the aim of ecologically sound and rational water management, conservation of water resources and environmental protection;

(c) To ensure that trans boundary waters are used in a reasonable and equitable way, taking into account their trans boundary character in the case of activities which cause or are likely to cause trans boundary impact;

(d) To ensure conservation and, where necessary, restoration of ecosystems.”

39 Supra note 30, p. 484. The approach of these rules was generally followed by the subsequent work of the IDI on pollution of rivers and lakes. See the Resolution on Pollution of Rivers and Lakes and International Law, Athens, 1979, in I Annuaire of the Institute de Droit International, p. 193. Also see subsequent rules adopted by the ILA on Water Pollution in an International Drainage Basin, Montreal, 4 September 1982, 60 ILA 1983, p. 535; and Rules of International Groundwaters, Seoul, 30 August 1986, 62 ILA 1987, p. 252.


41 Article X (1), ibid.

42 Article I, ibid.
Watercourses (hereinafter the 1997 Convention),\textsuperscript{43} drafted by the International Law Commission, has been set forth to regulate “the uses of international watercourses and of their waters for purposes other than navigation and measures of protection, preservation and management related to the uses of those watercourses and their waters.”\textsuperscript{44} Part II of this Convention stipulates the general obligations upon states in this respect. These include the utilisation of watercourses in an \textit{equitable and reasonable} manner (Article 5(1));\textsuperscript{45} the \textit{obligation to co-operate} in the protection and development of watercourse systems (Article 5(2));\textsuperscript{46} an \textit{obligation not to cause significant harm} (Article 7(1));\textsuperscript{47} and finally the \textit{procedural duties} consisting of the exchange of data and information, the pre-notification of other riparian states of any planned activities, replying to any notification made by the state of planned measures, and consultation and negotiation (Articles 9, 12 and 19).\textsuperscript{48}

Whilst it is generally accepted that the procedural duties in the international law system have not yet been considered as reflecting a customary rule, they nevertheless might do so when the matter relates to protection of international watercourses in particular. The procedural duties, which mostly precede the progress on any new activity on the watercourse systems, have been widely adhered to by the state parties to the 1997 Convention. The duty of prior notification, for instance, was accepted as a part of the Convention by most delegations to the 1997 Convention. This particular duty is therefore part of customary international law and binding upon all states.\textsuperscript{49} The international community as a whole seems to consciously reject the notion that a state has unfettered discretion to do as it wishes in relation to international watercourse within its

\textsuperscript{43} Adopted by the United Nations on 21 May 1997, see GA Res. 51/229, 36 International Legal Materials 700 (1997). For a discussion of this see Stephen C. McCaffrey, \textit{The International Law Commission Adopts Draft Articles on International Watercourses}, 89 American Journal of International Law 395 (1995); John R. Crook & S. C. McCaffrey, \textit{The United Nations Starts Work on a Watercourses Convention}, 19 American Journal of International Law, 1997, p. 374; and S. C. McCaffrey and Mpazi Sinjela, \textit{The 1997 United Nations Convention on International Watercourses}, 92 American Journal of International Law 1998. This Convention establishes general principles for the use and management of international watercourses and assists in the resolution of disputes. It encourages states to enter into specific agreements concerning the watercourses they share (Article 3). Such agreements may alter or adjust the principles contained in the Convention to suit particular conditions. This Convention is of a particular value because it is the only convention of a universal character on international watercourses. To ensure wider participation, the negotiations in the working group of the Sixth (Legal) Committee of the General Assembly were open to participation by all UN member states, as well as states that are members of specialised agencies of the United Nations.

\textsuperscript{44} Article 1, \textit{Ibid}.

\textsuperscript{45} In this respect, the Convention sets out some factors relevant to the equitable and reasonable utilisation including social and economic needs and conservation, protection and development of the watercourse, Article 6(1)(b), \textit{Ibid}. See next section for a detailed discussion on this.

\textsuperscript{46} A more explicit requirement to co-operate in good faith is produced in Article 8 under the title ‘General obligation to co-operate’. The manner of such co-operation can be determined by the states concerned by establishing joint mechanisms or commissions to facilitate the required co-operation. This states that “Watercourse States shall co-operate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilisation and adequate protection of an international watercourse.” Article 8(2), \textit{Ibid}.

\textsuperscript{47} This states that states “shall…take all appropriate measures to prevent the \textit{causing of significant harm} to other watercourse states”, \textit{Ibid}.

\textsuperscript{48} For a comprehensive discussion of the procedural duties in international law see Phoebe N. Okowa, \textit{Procedural Obligations in International Environmental Agreements}, The British Year Book of International Law, 1996, p. 275.

Consequently, the ‘Harmon Doctrine’ can no longer benefit its claimants.

Even more, scholars supplemented the above suggesting that the procedural obligations must be considered as part of customary international law while considering disputes over international watercourses. Phoebe Okowa, for instance, in rejecting that there is a general customary law of procedural duties, suggests that in most cases the evidence as to whether a customary law of procedural obligations has taken place “is in fact patchy, equivocal, and inconclusive.” However, when the matter involves an international watercourse, the same scholar reserves her contention by agreeing that the procedural obligations have actually passed in the bulk of customary international law given the international watercourses *lex specialis* and the evidence of the extensive state practice in this regard.

Beside treaties and scholarly opinions, international law *vis-à-vis* state practice seems to be relatively well developed in respect of international rivers. Examples can also be derived from international tribunals decisions:

In 1929, the Permanent Court of International Justice (PCIJ) held that the utilisation of international rivers, including their flow, was subject to international law: the Court identified the “community of interests in a navigable river [which] becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian states in the use of the whole course of the river and the exclusion of any preferential privilege of any one riparian in relation to the other.” While endorsing the principle of limited territorial sovereignty, explicit in this statement is the focus on the manner of use of shared water resources. This is based on the prohibition of any limitation imposed on other riparian states to make full use of their right of access to that shared natural resource.

Furthermore, the above legal approach could also be found in the *Lake Lanoux* arbitration. Although the Court has legitimised the proposed French works of constructing a barrage to channel water through a hydro-electric power plant, it held that the Spanish claim to an infringement of rights might have been more successful if it could have shown that the proposed works would pollute the waters in such a way as to injure its interests. It also declared that in undertaking works on an international waterway, one ought to take into account interests which risk being affected, even if such interests may not correspond to a right. Moreover, it went on,

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53 See P. Sands, *supra note* 51, at p. 347.  
54 Case concerning the *Territorial Jurisdiction of the International Commission of the River Oder*, Judgement No. 16 (1929), PCIJ, Ser. A, No. 23, p. 27.  
56 Ibid., at p. 123.
the upper basin state has an obligation to take into account, in good faith, the different interests present and to seek to accommodate all of them in a willingness to reconcile the interests of one riparian with those of another.

Also, the case concerning the Gabčíkovo-Nagymaros Project was decided by the ICJ to include in most of its parts issues related to the environment. This case arose out of the signature by Hungary and Czechoslovakia, on 16 September 1977, of a treaty concerning the construction of the Gabčíkovo-Nagymaros System of Locks of the Danube River for both countries as a ‘joint investment’. The original Hungarian application to the ICJ in October 1992 relied on a claim of territorial sovereignty and at least nine general principles and rules of customary international law related to freshwater pollution and the diversion of international rivers. This included the obligations to maintain ecosystems; conserve flora and fauna; participate in good faith negotiation; prevent transnational environmental interference; not to cause significant harm to other watercourse states; to make reasonable and equitable use of trans boundary resources; give prior notification of activities; engage in consultations; and to anticipate, prevent and minimise damage to trans boundary resources.

The legal arguments in this case were based on the view that the ‘provisional measures’ would deprive Hungary of its due share of water quantity, water quality and power potential, and would impair the quality and quantity of other natural resources, including forests, groundwater reserves, and genetic diversity.

The International Court of Justice, whilst ruling that Hungary was not entitled to suspend and

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58 The treaty also oblige the contracting parties to ensure that the quality of water in the Danube was not impaired as a result of the Project, and that compliance with the obligation for the protection of nature arising in connection with the construction and operation of the System of Locks would be observed. See the Memorial of the Republic of Hungary submitted to the ICJ on 2 May 1994, p. 120. See also the Special Agreement between Hungary and the Slovak Republic for Submission to the ICJ for the Differences between them, 32 International Legal Materials 1993, p. 1294.
60 Ibid., pp. 268, 1273,1274,1275, 1276 and 1287.
62 Similarly, under the Special Agreement, Hungary stressed, in its memorial to the ICJ, the value of (and that Czechoslovakia had violated) Article 15 of the 1977 treaty, concerned with the protection of water quality in the Danube River, Article 19, concerned with the protection of nature, and Article 20 concerned with the protection of fishing interests. See the Memorial of the Republic of Hungary submitted to the ICJ on 2 May 1994, pp. 184-196. Moreover, Hungary claimed that Czechoslovakia violated rules of general international law in its approach to the concerns raised by Hungary about the project, specifically the obligation of prevention of environmental damage in the light of the precautionary principle, and the obligation to co-operate in mitigating environmental damage. Ibid., pp. 189-209. Also, in respect of the diversion of the Danube River, Hungary maintained that Czechoslovakia violated principles of customary international law such as the obligation not to cause damage to the environment of other states; that it did not provide Hungary with timely and adequate information on its plan to proceed to this act; it did not accept meaningful consultations with it; that it did not observe the principle of equitable use of shared natural resources; and that it did not respect the principle of the permanent sovereignty of Hungary over one of its main natural resources. Ibid., pp. 219-232.
subsequently abandon the works on the Nagymaros Project for which the 1977 Treaty and related instruments attributed responsibility, expressly acknowledged that the concerns expressed by Hungary for its natural environment in the region, affected by the Gabcikovo-Nagymaros Project, related to an essential interest of Hungary. It also stated that “the existence of the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other states or of areas beyond national control is now part of the corpus of international law relating to the environment.” Moreover, it has stated that newly developed norms of environmental law were relevant for the implementation of the treaty. That new norms and standards had now been developed in many instruments and should be properly considered. The effect of this approach is to render already undertaken treaty arrangements between states susceptible to modification in order to make them environmentally sound.

What can be concluded from the above description is twofold. On one hand, the Gabcikovo Case bring us to one particular conclusion that an application of a ‘community of interests’ approach is probably the best way of avoiding disputes over international watercourses. In the long run, this may emerge as a customary rule for regulating riparian states’ different claims upon an international river especially when the water therein is barely sufficient for the basic needs of all riparian states. Just as with the limited territorial sovereignty approach, this theory contrasts with other competing claims, such as the absolute sovereignty (or Harmon Doctrine) and the territorial integrity of the basin system, which have been, and are still, pressed into service by some states especially those who are in a favoured position.

Finally, what can be deduced from the various provisions of the 1997 Convention is quite straightforward: the most important elements of the Convention, particularly the ‘no harm’ principle, the duty to co-operate and prior consultation, are just codification of already existing norms. In this respect, Professor McCafferey stated that “Even the provisions of the Convention that do not reflect current law are likely to give rise to expectations of behaviour on the part of riparian states that may, over time, ripen into international obligations.”

2.3 The Criteria of ‘Equitable’ and ‘Reasonable’ Utilization

The foremost obligation of international law to utilise in an equitable and reasonable manner an international watercourse is introduced in Article 5 of the 1997 Convention. Article 5(1) provides that: “Watercourse States shall in their respective territories utilise an international watercourse in an equitable and reasonable manner”. In commenting on this rule, the ILC has provided that it is a crystallised rule of international law and a ‘well established rule’ of international law for the determinations of rights and obligations of States in this field.

64 Ibid., para. 53.
67 Note that similar obligation has been introduced in the 1966 ILA Helsinki Rules which provides that a state is entitled to “a reasonable and equitable share in the beneficial use” of the waters, in accordance with the relevant factors in each case., See Articles III, IV and V(1), supra note 30, at p. 484.
68 This is on the basis that ‘treaty provisions, positions taken by States in specific disputes, decisions of international
However, the same comment made a delicate balance by adding that water use must be “optimal and sustainable, and should take into account the interests of the concerned watercourse states, consistent with adequate protection of the watercourse”. A regime of equitable utilisation of an international watercourse system cannot be achieved solely through unilateral action by one riparian state in isolation from the others. Accordingly, Article 6(1) of the Convention specified some non-exhaustive factors to be observed by the States’ parties in this respect to include natural factors (e.g. climate, hydrography), and human-related (e.g. social and economic needs of the riparian states, effects of uses in one state on co-riparians, existing and potential uses).69

These factors, although dependent on one another, may well vary in their weight for establishing a standard of an equitable use. Of course, the relative weight of each factor in deciding upon each case is a question that remains open. According to the 1994 ILC Report on this subject, “the weight to be accorded to individual factors, as well as their relevance, will vary with the circumstances”.70 Thus, an important element for any sound decision regarding the equitable utilisation of a shared watercourse would depend on agreeing upon the potential weight of each factor.

In this study, an attempt to discuss all these factors and the relevant weight of each one will not take place,71 rather, only the one that are potentially most relevant to the Jordan River water crisis, the core example of this study, will be considered. Here, the most important and difficult factor seems to be the social and economic needs of the states concerned.72 This is because of the nature of this criterion73 which is susceptible to manipulation since states tend to conceal the real identity of their water-related needs on the hope that a larger portion of the water is allocated to them. Accordingly, it is imperative for the resolution of any dispute over shared watercourse, or a normal agreement for the allocation of their shared water, to identify the real needs of each state and then attempt to prioritise these needs according to their vitality. In so doing, international law has reflected few guidelines to be followed by the states concerned:

First, the question of equitable apportionment should not mean that only the needs of the basin area should be considered.74 Therefore, there is no territorial limit for the consideration of the states needs other than the territorial extent of the respective states,75 and accordingly, diversion
courts and tribunals, statements of law prepared by intergovernmental and non-governmental bodies, the views of learned commentators, and decisions of municipal courts in cognate cases’ all reveals an evidence that there is overwhelming support for the doctrine of equitable utilisation as a general rule of law for the determinations of rights and obligations of States in this field. See Report of the International Law Commission to the General Assembly on the Work of its Forty-Sixth Session (the 1994 ILC Report), Doc.A/49/10 (1994), pp. 222.

69 McCaffrey, Supra note 18, at p. 16.
70 The 1994 ILC Report, ibid, at p. 235.
71 For a comprehensive discussion of this see X. Fuentes, The Criteria of Equitable Utilisation of International Rivers, The British Year Book of International Law, 1996, p. 337.
72 Note that a simple reading of the various factors envisaged by Article 6(1) reveals that some of these factors are in fact connected to each other. For instance, the social and economic needs of the states concerned (6.1b) should be understood in connection with the independence of each state’s population on the watercourse (6.1c) and the availability of alternatives for each state in their usage of the watercourse (6.1g).
73 The ILC commentary to Article 6 does not provide any explanation of the application of this criterion.
75 Article VI of the Helsinki Rules state that each basin State is entitled within its territory to the equitable and reasonable use of an international drainage basin.
of water could be a significant factor in the process of equitable apportionment. In other words, “the relevant consideration is the interest of the State as a whole and all its inhabitants and not merely the interest of the basin areas of the State”.  

Secondly, in identifying the real needs of each state, it has been suggested that non-pertinent socio-economic needs should not be taken into account to establish a regime of equitable utilisation of international rivers. For example, the relative poverty of one state in terms of absence of natural resources like agriculture or minerals, compared with the relative abundance of these resources in the other is not a relevant factor to include while deciding upon the issue of equitable utilisation. Also, an argument based on the fact that the state is economically under-developed, and thus needs a larger portion of the shared natural resource to improve the situation, is not acceptable. Factors relevant to the determination of the real social and economic water-related needs of the states would be the extent of dependence of each state population on the shared watercourse, the extent of irrigated and irrigable land, the economy of the states that is dependent on the watercourse, and the existence of alternative means for the satisfaction of the water-related needs of the states concerned. These needs, and others, may serve as a basis for a proportional division of the water of international watercourses.

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76 The Report of the Krishna Water Disputes Tribunal, Supra note 73. However, the same report maintains that the needs of the drainage area are given priority over the needs of the zones located outside the basin. The latter needs should only be fulfilled by the surplus waters left after the satisfaction of he needs of the drainage area. Ibid, p. 128.  
77 In X. Fuentes, The Criteria of Equitable Utilisation of International Rivers, supra note 70, at p. 343.  
78 See on this the ICJ decision in the Tunisia/ Libya case where it dismissed a Tunisian argument of the relevance of its relative poverty vis-à-vis Libya in the delimitation process of their shared sea. ICJ Reports, 1982, para. 106, p. 77. It should be noted here that an analogy with the experience of the ICJ maritime delimitation cases in applying the equitable utilisation rule is imperative. The suggestion here is that this experience may shed some light on the examination of the criteria applicable to the equitable utilisation of international watercourses.  
79 See on this the ICJ decision in the Malta/Libya case where it rejected similar argument by Malta. ICJ Reports, 1985, para 50, p. 41.  
81 Irrigated land refers to the existing use of the watercourse for irrigation (land already under irrigation and cultivation), while irrigable land includes existing as well as prospective irrigation. Note that the question of which of these two norms to be favoured in a given case has created inconsistency in the different courts’ decisions. While both the Indian Narmada Water Disputes Tribunal and the Argentine Supreme Court have favoured the ‘irrigable land’ norm in the apportionment of shared watercourses, the Krishna Tribunal, also in India, has favoured the ‘irrigated land’ norm. Ibid, vol. 2, pp. 174-5.  
82 On the basis of this criterion, a state could be allocated more water than its neighbours as a result of the high degree of dependence of its economy on the utilisation of a given watercourse. This is so even if this state is with less population and irrigable land than the others. To this effect is what is stated in Principle V(b) provided by the International Law Association in its ‘Statement of Principles upon which to base Rules of Law governing the Use of International Rivers’, adopted at its Dubrovnik Conference in 1956, ILA Report of the Forty-Seventh Conference (Dubrovnik, 1956), p. 242.  
83 This is read as either the existence of alternative water-resources or alternative means, other than water-resources, for the satisfying of the needs of the states concerned. As to the former, it should be noted that the ILC has pointed that the alternative water supplies should be of a ‘corresponding value’ where a comparable feasibility, practicability and cost-effectiveness are all relevant factors. The 1994 ILC Report, supra note 69, p. 233. As to the latter, the ILC commentary on Article 6(1)(g) stated that alternative means would entail ‘alternative sources of energy or means of transport’. Ibid.
Thirdly, as to the issue of prioritising the water-related needs according to their vitality to humans, it is worth mentioning that the 1997 Convention states in Article 10(1) that “in the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses.” Nevertheless, Article 10(2) provides that in case of conflicts over the uses of shared watercourse the matter “shall be resolved with reference to articles 5 to 7, with special regard being given to the requirements of vital human needs”. Here, water uses for domestic and sanitary purposes seem to have always been given preference in vitality over and above all other uses such as energy generation or irrigation.84 In fact, history reveals that there have been several treaties and courts’ decisions over shared rivers which implicitly recognised the need to prioritise the water-related needs giving uses for domestic and sanitary purposes, once a genuine dependence is established, a prime vitality.85

Fourthly, the existence of prior uses is not attributed any higher status in the listing of the relevant factors.86 In fact, the relevance of existing and potential uses of the watercourse (6(1e)), the second relevant factor for establishing an equitable and reasonable use can only be counted in connection with the states’ economic dependence on the shared waters and on the notion of their vital needs.87

Fifthly, the relevance of local customs – another factor for establishing an equitable utilisation of an international watercourse – can be invoked as a direct basis for the allocation of water to a state as well as evidence of the economic and social needs of the concerned riparian states.88

Before the discussion resumes to consider the relevance and implications of the duty to utilise an international watercourse in an equitable manner to the Middle East region, a final analysis into the quality and scope of obligations contained in the 1997 convention merits attention:

First, the parties to the 1997 Convention are allowed to depart from the general principles of the Convention where necessary,89 for they do not rise to the level of containing jus cogens provisions.90 This Convention is considered as framework, indicating that parties to it may

84 The ILC commentary to Article 10 of the 1997 convention explains that the requirement if vital human needs include the supply of drinking water and the provision of the water required for the production of food so as to prevent starvation. Ibid., p. 257.
86 The ILC commentary to Article 6 provides that neither uses is given priority, the 1994 ILC Report, supra note 69, p. 233. For a comprehensive analysis on this see X. Fuentes, supra note 70, pp. 356-73.
87 Several decisions of international tribunals have made clear that, in a dispute over apportionment of natural resources, the historic argument by the parties ought to be accompanied by and evaluated on the basis of other criteria, such as economic dependence and the vital needs of he population, and should not operate independently from them. See for instance the Gulf of Maine case, ICJ Pleadings, 1984, vol. 6, p. 381. Also see analysis in O’Connell, The International Law of the Sea, (Oxford, 1982), vol. 1, p. 438.
88 For a comprehensive analysis on this see X. Fuentes, The Criteria of Equitable Utilisation of International Rivers, supra note 76, pp. 373-78.
89 Since the uses of shared watercourses varies from one to another, it could be argued that a framework convention at this stage is preferable to that of a specific treaty. A framework convention will have the effect of attracting the ratification of more States.
90 Cited in S. C. McCaffrey and Mpazi Sinjela, supra note 66, p. 98.
apply and adjust’ its general principles through specific agreements. Yet, parties are encouraged to ‘consider harmonising’ existing agreements albeit taking into account the ‘basic principles’ of the Convention.\textsuperscript{91} Also, watercourse states are to consult one another “with a view to negotiating in good faith for the purpose of concluding a watercourse agreement or agreements”.\textsuperscript{92}

Secondly, and of particular importance to the Middle East, is the wide scope of application embedded in the 1997 Convention. For many years, international water law has evolved mainly concerning surface water issues while ignoring other main sources of water such as groundwater.\textsuperscript{93} The trend has however changed with the emergence of the 1997 Convention. The most important amongst the definitions of Article 2, concerned with ‘Uses of Terms’, is the one defining the term ‘watercourse’ as “a system of [both] surface waters and ground-waters constituting by virtue of their physical relationship a unitary whole.”\textsuperscript{94} The significance of this inclusion is realised most pertinently in the arid regions such as the Middle East. Groundwater is proving increasingly important and hence a potential source of conflict.\textsuperscript{95}

What can be concluded from the above analysis is twofold: first, an obligation to utilise equitably an international watercourse is a well-established and crystallised into a rule of international law; and secondly, the equitable utilisation rule have a normative content and its application requires weighing up all the prospective factors which create equities in favour of the states concerned. While states are free to agree on any solution which they consider equitable, international tribunals, if asked to settle a dispute concerning the utilisation of an international river, should follow certain guidelines in the selection of the criteria to take into consideration in the process of the establishment of an equitable regime for water utilisation.

2. Applying International Law of International Rivers to the Middle-East Water Crisis

The previous section concludes that there are rules specifically introduced and embodied in the bulk of customary international law having a binding force upon all states, and hence can be applicable on the situation in the Middle East. It remains that we should turn to the issue of the real implication of these principles and the extent they have been adhered to in the Middle East water crisis.

Notable at this stage is the fact that in comparison with other regional arrangements to preserve international rivers in the manner stated above, the position in the Middle East region seems to be well behind.\textsuperscript{96} This is despite the fact that most governments in the Middle East are aware that

\textsuperscript{91} Article 3(2), supra note 43.
\textsuperscript{92} Article 3(5), ibid.
\textsuperscript{93} However, according to an early argument, the legal principles and practice which have evolved mainly for questions of surface water disputes apply by extrapolation to questions of groundwater. See D. Caponera and D. Alheritiere, Principles for International Groundwater Law, Natural Resources Forum, DC-749, (New York: United Nations, 1978).
\textsuperscript{94} Paragraph (a), supra note 43.
\textsuperscript{95} In November 1992 the Jordanian Minister of Agriculture accused Saudi Arabia of using more than its share of the common aquifer that straddles the boundaries of both countries. Al-Raiy, 21 November 1992.
\textsuperscript{96} See discussion concerning the bilateral and regional arrangements in Europe, the Americas ad Africa in P. Sands, supra note 51, p. 354-363.
the problem of increasing the availability of water for agriculture, industry and to meet the needs of a growing population cannot be solved without a variety of bilateral and regional agreements.\(^97\) Of course, the argument in this context is that disputes arising over international rivers are best resolved via bilateral and regional agreements, and are best supplemented by the general principles of international law. Regrettably, the limited scope of this research does not allow for a study of all the region’s international watercourse systems. The following analysis will be specifically related to the Jordan River Basin system, although outcomes could well be stretched to all neighbouring basins.

3.1 River Jordan Basin Paradigm

The water crisis situation in the Middle East is worse than anywhere else in the world due to the long-standing political unrest in the region. This most applies to the Jordan River basin which is shared by Jordan, the Palestinians in the occupied territories, Syria, Lebanon and Israel. This example offers an almost perfect case study of the growing relationship between vital natural resources and international security issues. Hence, and in order to understand the legal status of the riparian states on the Jordan River basin, it is essential to grasp the history behind their current positions.

Before the destruction of the Ottoman Empire in 1918, Jordan River remained a unified basin encompassed by the empire for four centuries. When, after World War I, the French and British mandates over Syria, Lebanon, and Transjordan (later Jordan) divided the region’s river basin, no serious international disputes were generated. Even though treaties might set a boundary along a Middle East river, the agreements were bilateral and rarely included terms for sharing the water among users. Only when the mandatory countries achieved independence and the State of Israel was created, did competing claims to the Jordan basin’s surface and groundwater become serious and complex. The water resource did initially satisfy the demands of the countries within the basin system but since the sixties it began to fall short of the demands.\(^98\) The 1967 Arab-Israeli war, and the Lebanese conflict a few years later, added new complications to the situation, not only by altering the boundaries among the riparian states and thereby engendering another unresolved dispute, but also by altering the riparian status of the four countries that have water use rights in the various parts of the Jordan River basin,\(^99\) and of the Palestinians, who also have significant claims to the Jordan’s waters.

Syria was initially an upper riparian on the Upper Jordan by virtue of its unfettered control of the main springs of the Banias River and Syria’s abutment on the main branch of the Jordan above Lake Tiberias. However after 1967 the Banias River was removed from Syria’s control after

\(^{97}\) Note for example some comments by leading figures in the region such as former Director of the Israeli Agriculture Ministry, Rafael Eiten saying “joint exploitation and sharing of water resources based on regional agreements will aid in postponing a water crisis for many years to come”. However, he also acknowledged that “Co-operation between Israel and Jordan in solving the most immediate problems will postpone but not prevent a water crisis at the beginning of the next century”. Cited in J. Bulloch and A. Darwish, Water Wars: Coming Conflicts in the Middle East, (Victor Gollancz, 1993), pp. 34 and 35.


\(^{99}\) The per capita consumption of water in Jordan is the least in the region, estimated at 240 mcm per year compared to 370 mcm for Israel and 3500 mcm for Turkey. See B. Al-Kloub, Sustainable Development of Water Resources and Possible Enhancement Technologies and Application of Water Supplies for Jordan (GCEP, Jordan, 1995).
Israel’s occupation of the Golan Heights. Syria remains the upper riparian on the Yarmouk River.

Lebanon was upper riparian on the Upper Jordan by controlling the Hasbani River branch. In 1978, when Israel occupied southern Lebanon, most of the river became part of the Israeli security zone in Lebanon and is controlled by Israel. As a result, Lebanon has fully lost any control on the Jordan River to Israel.

Jordan was, and is, the middle riparian on the Yarmouk and the lower riparian on the trunk of the Jordan River below Lake Tiberias. Due to the proceedings mentioned above, Jordan is left with no usable water from both the Yarmouk and Jordan Rivers since it is the lower riparian state.

Israel, prior to 1967, was the lower riparian vis-à-vis the Hasbani and Banias Rivers, but is now the effective sole riparian on the Upper Jordan. Beside this, since its creation, Israel was, and still is, the sole riparian on the Dan River branch of the Jordan system. Moreover, it was, and remains, the lower riparian on the Yarmouk (although its occupation of the Golan Heights has extended its control of the north bank of the Yarmouk by about six miles). As a result, Israel’s current position (backed up by its military strength) has elevated it to having the lion’s share in the region.

3.2 The Legal Claims of the Jordan River Riparian States

Not surprisingly, with the exception of Lebanon, the various legal claims made by the Jordan basin riparian states have been changing from time to time following any changes in their perceived interests or their military capabilities. Lebanon, however, has always embraced, in contradiction to the general rules of international law, a claim of absolute sovereignty over the Hasbani River and has never abandoned this position. This of course if practically attained would deprive Israel of a considerable amount of its alleged waters since Lebanon is simply the upper riparian state in the region.

As for Syria, it has adopted an ambiguous attitude that has differed from time to time and from one situation to another. For instance, being the upper riparian state, it has, in contradiction with international law, asserted the traditional upper riparian precept of absolute riparian sovereignty over the Banias River, and it continues to do so today. This position however, if entirely upheld, does not favour Syria when the issue in question relates to another international river such as the Euphrates River which is generated in Turkey and passes through Syria forming its main water supplies therein. For the former situation, Syria tends to follow the ‘riparian community of property’ precept.

Jordan, prior to 1967, assumed the stance of ‘absolute integrity of the river system’, and also insisted that other states could not divert water outside the watershed of the Jordan. If enforced, this Jordanian position would either have precluded consumptive use by any other state in the basin or have allowed only in-basin uses of the Jordan River. This of course means that Israel could not have used the Jordan River for its National Water Carrier or any of its development plans for the vast out-of-basin districts in the Coastal Plain and Negev Desert. Since 1976,

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100 For an overview of the environmental consequences of the unilateral uses of the basin water which has resulted in a deteriorating effects for the users of Jordan River basin countries see B. Al-Kloub and T. T. Al-Shammeri, An
however, Jordan has taken the position of ‘a riparian community of property’ when it was deprived of using almost all the river basins in the region.

Israel also adhered to the ‘riparian community of property’ stance during the first years of its formation as a state. But after 1969, as is expected having greatly improved its riparian status by occupying most of the river basins in the region, Israel began to insist on the absolute territorial sovereignty rule. Ironically, this right was and is still denied for the Palestinians in relation to the groundwater in the Mountain Aquifer in the West Bank territory. Over this source, Israel claims that it was the first to develop the water exploitation projects in the area and hence could claim a strict historical use of its waters.101

All of the above juridical precepts have been applied at one time or another to the River Jordan basin, but more often in the political arena than in a court of law.102 Only in respect of the 1959 agreement between Egypt and Sudan which includes mandatory arbitration has there been a resort to law for the mediation or resolution of a water dispute.103 However, in this atmosphere of mixed attitudes in the region, it is practically impossible to suggest that a regional customary rule on the use of the watercourse system basins has evolved. Without treaty agreement in place, and without adequate agreed upon legal structures for settling international riparian disputes based on those treaties, law lacks the capacity, at present, of being an effective instrument. Consequently, the next discussion should thus turn to decipher whether there are any treaty arrangements in place to tackle this problem in this region. At this point, it should be noted that in the absence of specific treaty arrangements or regional customary law, the general principles of international law should continue to apply.

3.3 Prospects of Cooperation and Dispute on the Jordan River Basin

Mutual suspicion between the states in the region – especially between Israel and its neighbours – has led some to observe that the issue of water resources in the region is caught in a vicious circle. There can be no basic agreement on an equitable distribution of water resources until a formal Middle Eastern Peace Settlement has been concluded; but no such settlement can be concluded until an arrangement in the equitable distribution of water resources, among all riparian states, has been reached. As Thomas Naff puts it:

“... because of its sheer complexity in physical, practical, ideological, and symbolic terms, the issue of water [in the Middle East] has been difficult for scholars (and policy makers) to grasp holistically.”104

To date, no comprehensive agreement between the neighbouring countries has been concluded.


101 See argument by H. I. Shuval, Towards Resolving Conflicts Over Water Between Israel and its Neighbours: The Israeli-Palestinian shared use of the Mountain Aquifer as a Case Study, in J. A. Allan, eds., supra note 6, at pp. 137-168. For comments on the validity of this claim see section 4.3.1.3 below.

102 See T. Naff, supra note 17, at pp. 249-269; Thomas Naff and Ruth C. Matson, eds., supra note 6, at pp. 5f. and 157-167.


104 T. Naff, Supra note 17, p. 189.
This, however, must not mislead us into overlooking the efforts that are being made to avoid a conflict, which Middle East governments agree cannot resolve the water crisis in the long term. The water issue, although the reason for major conflicts, has also been the motivation for cooperation. Even scholars who have seen the water issue as difficult for policy makers to grasp were optimistic that co-operation is inevitable. Thomas Naff stated that:

“Precisely because it is essential to life and so highly charged an issue, water, unlike most other volatile problems in international relations, can – perhaps tends to – produce cooperation even in the absence of trust between the concerned actors. The operation of what can be called ‘superordinate goals or interests’ appears to have had considerable influence in the past in avoiding water-based conflict in the Middle East. When hostile actors are compelled, for whatever reason, to share essential common goals – that is, overriding superordinate goals – and when co-operation clearly benefits all concerned, the hostile actors tend to co-operate rather than fight.”

Since the beginning of this century, a plethora of international schemes, for water allocation and a region-wide water management plan on the Jordan River basin, have been proposed with the aim of achieving greater regional stability. All of these required some degree of inter-riparian acquiescence and co-operation.

Between 1913 and 1964 some twenty-one such proposals were put forth, over half of them between 1950 and 1957. Since 1948 there have been no less than fourteen schemes put forward by the United Nations, Israel, Jordan, the United States, the World Zionist Organisation and the Arab League, for sharing and developing the waters of the Jordan basin. However, none of these, regardless of how workable or how sensible, has been formally adopted. The perennial obstacles to negotiations have been widely based on differing perceptions of ‘needs’ and ‘historic rights’. In the 1950s Israel’s priorities were the greening of the Negev desert and the settlement of new immigrants, a matter of ‘national economic importance’. The Arab States, particularly Jordan, claimed that the Jordan basin waters were needed primarily for the resettlement of Palestinian refugees, especially the 800,000 living in both banks of the Jordan.

The best-known plan is the officially titled 1955 Unified Plan, popularly called the Johnston Plan. On October 16, 1953, President Eisenhower appointed Eric Johnston as special

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106 The oldest ideas could be traced to the Zionist thinking in the preparation for the creation of Israel and after World War I where there was intense Zionist lobbying to have the borders of Palestine to include the entire Jordan River basin with a bank on the Litani river. There was Zionists attempts to convince the Egyptian government in 1902 to agree to divert part of Nile water in Sinai and the Najev. Beside this there has been bilateral development plans in all riparian states which resulted in the following water shares: Israel 60%, Jordan, 25%, Syria 13%, and the Palestinian 2%. *See Jordan River Basin Study*, a study submitted to the International Bank for Reconstruction and Development (IBRD), Regional Office for Integrated Development (ROID), 1993 (Draft).


109 On the Johnston Plan (Unified Plan) see State Department Documents (obtainable under the Freedom of Information Act) of September 30, 1955, October 11, 1955, and January 31, 1956; also see White House,
ambassador to mediate a comprehensive plan for regional development for the Jordan River system. This plan, of all the schemes proposed, was the most important and comprehensive, and has been the closest to success in the region. The assumption of the resulting Johnston mission was that profit of co-operation in the region, such as achieving economic development and political stability that is desired by all antagonist parties, would override their belligerence and make a peaceful settlement of water-sharing and other regional issues more possible. This was, putatively, a rational hypothesis.\textsuperscript{110} The Johnston Plan, based on an idea originally elaborated by the US Tennessee Valley Authority, would establish a system of water quotas for the riparian states using Lake Tiberias as the principle storage reservoir. Storage dams would also be built on the Hasbani, Dan and Banias to irrigate Galilee in northern Israel, and at the Maqarin and Adisiyeh to serve the Jordan Valley. Johnston’s aim was that the division of waters should be ‘equitable, economic and efficient’. The plan was to be implemented by the parties under the supervision of an international commission set for that purpose.

What is interesting about the negotiations over the Johnston Plan was that despite the difficult negotiations over what is believed sensitive issues, tension was actually reduced and a compromise was worked out even over the toughest issues such as allocation of water and international supervision.\textsuperscript{111} The best proof was that the technical teams, representing the negotiating parties, accepted the plan.

Unfortunately however, the rational hypothesis of the Johnston Plan did not achieve a formal agreement. On the one hand, the political problem and the implacable hostility of certain factions among both Arabs and Israelis prevented final acceptance. Lebanon, Syria and Jordan were reluctant to enter into a co-operative agreement with a state which they did not recognise. Lebanese press, for instance, saw the plan as a means of diverting the attention from the problem of Palestinian refugees.\textsuperscript{112} Israel disliked the exclusion of the Litani River in the plan since it could bring much higher yields to Israel. On the other hand, the committee proposed was defined loosely and that led to some confusion as to the impartiality of the actual implementation of the plan. For instance, the Arab States were anxious that the US had offered Israel guarantees on border security in return for acquiescence regarding water allocation to Jordan.\textsuperscript{113}

Nevertheless, in the context of their unilateral water planning, Israel and Jordan have adhered to the resultant outcome of the Johnston Plan informally in so far as the technical details of the plan is concerned.\textsuperscript{114} This included acceptance, in terms of an order of magnitude, of the water quotas


\textsuperscript{111} As incentives, the United States held out financial assistance for an atomic-powered desalination facility and favourable consideration for more weapons that Israel has requested. See Department of State, US Embassy, Tel Aviv, \textit{Telegram to the Secretary of State re US-Israel Co-operation on Desalination, Jordan Waters, and Salt Plans}, (Washington, D. C., Declassified Documents Quarterly Service, 15 May, 1954), pp. 1-4.

\textsuperscript{112} D. Wishart, \textit{The Breakdown of the Johnston Negotiations over the Jordan Waters} vol. 26, 4 Middle Eastern Studies, October 1990.

\textsuperscript{113} \textit{Foreign Relations}, 1953-55 Vol. XIV Memo of Conservation, Department of State, 11 July 1955.

\textsuperscript{114} Natasha Beschorner, \textit{supra note} 9, at p. 20.
proposed by Johnston. Approaching the year 1967 however, this informal agreement started to
deteriorate as a result of Israel forging ahead with creating its National Water Carrier (NWC) in
1964 which diverted a significant quantity of water from Lake Teberias for out-of-basin use
leading to the 1967 war.\textsuperscript{115} Of course, the matter could have taken a different vein had the Plan
being of any formal legal status binding upon both Jordan and Israel.

Besides these proposed plans, a few bilateral agreements were also proposed. Amongst these was
the 1987 Syrian-Jordanian Agreement to Utilise the Yarmouk River.\textsuperscript{116} Under this agreement all
Yarmouk water at elevations fewer than 250 meters above sea level would be at the disposal of
Jordan. A proposed new dam (Al-Wehdah dam on the Yarmouk River) was included in the
agreement but it was not implemented since the approval of Israel was a prerequisite before
building the dam. The World Bank postponed its agreement to finance the project until
satisfactory agreement between the riparian states was reached.\textsuperscript{117}

Another proposal was made by Israeli engineers in 1980 for a construction of a canal from the
Mediterranean to the Dead Sea (Med-Dead) to generate hydraulic electricity plant, but this was
opposed by Jordan on the grounds that raising the level of the Dead Sea would flood tourist
facilities and roads and destroy potash production installations.\textsuperscript{118} Jordan subsequently submitted
an alternative proposal, which was also opposed by Israel, for a canal to the Dead Sea from the
Red Sea at Aqaba (Red- Dead).\textsuperscript{119} Yet, these objections were ultimately political rather than
economic or environmental.

Currently, there are halted bilateral and multilateral peace negotiations aimed at regional co-
operation on the Jordanian/Israeli and the Palestinian/Israeli levels and the water issue is posed
on both negotiations.\textsuperscript{120} The 1993 Israeli-Palestinian Declaration of Principles is one such
outcome.\textsuperscript{121} Annex III of the declaration outlines a joint water development programme to
promote co-operation between the Israelis and the Palestinians. It also sets a duty upon the states
parties to research demands in each riparian nation to determine allocation and means to co-
ordinate water development projects. In addition, the declaration calls for defining water rights
and equitable use of available resources to avoid future conflict. Finally, the declaration calls for
the creation of Palestinian Water Administration Authority (PWA).\textsuperscript{122}

Following the Declaration of Principles, an Israeli-PLO Interim Agreement, until a final
agreement is produced, has been concluded in which Article 40 is solely devoted to the water

\textsuperscript{115} See T. Naff and R. Matson, \textit{supra note} 10.
\textsuperscript{117} Jordan’s application for funds from the World Bank ($ US 300m) was rejected because Israel vetoed the project
saying it would adversely affect Israel’ use of 15% of Yarmouk waters.
\textsuperscript{118} See E. Salameh, \textit{Effects of the Mediterranean-Dead Sea Canal on Jordan’s Groundwater Resources}, in A. Farid
\textsuperscript{120} M. Haddadin, \textit{supra note} 6.
\textsuperscript{121} Ministry of Foreign Affairs, Amman-Jordan, 1993.
\textsuperscript{122} The major challenges facing the PWA are: “(a) the need to streamline .. existing water laws, (b) to establish,
implement and enforce .. legislation, and (c) to build … institutional structure.” Y. Nasser, \textit{Palestinian Management
options and Challenges within an environment of scarcity and power Imbalance}, in J. A. Allan, eds., \textit{Water, Peace
and the Middle East: Negotiating Resources in the Jordan Basin}, (Tauris Academic Studies: I. B. Tauris Publishers,
Principle 3 of this agreement states some valuable principles that relate to water conservation and prevention of pollution; principle 3(a) calls for maintaining existing quantities of utilisation from the resources; principle 3(b) states the international legal perception of preventing the deterioration of water quality in water resources; principle 3(c) calls for using the water resources in a manner that will ensure sustainable use in the future, in quantity and quality; principle 3(e) provides for taking all necessary measures to prevent any harm to water resources including those utilised by the other side; principle 3(f) mandate for treating, re-using or properly disposing of all domestic, urban, industrial and agricultural sewage; and finally principle 3(h) provides that each side shall take all necessary measures to prevent any harm to the water system in their respective areas. Moreover, the Principles 4 and of the Interim Agreement provided for the establishment of the Palestinian Water Authority, and a Joint Water Committee.\footnote{Principles 11 and 12, \textit{ibid.}}

Also, the 1994 Jordanian-Israeli agreement is one other result of the peace process. This guarantees Jordan about 215 mcm per year as an additional amount of water and sets the rules for rehabilitating the Jordan River water and for protecting the quality of shared water resources in both states.\footnote{The settlement of the issue of shared water resources was addressed in Article 6 of the Treaty, entitled "Water" as follows: “1. The Parties agree mutually to recognise the rightful allocations … in accordance with the agreed acceptable principles, quantities and quality …, which shall be fully respected and complied with. 2. The Parties, … for the advancement of co-operation between them, jointly undertake to ensure that the management and development of their water resources do not, in any way, harm the water resources of the other Party. 3. The Parties recognise that … more water should be supplied for their use through various methods, including projects of regional and international co-operation. 4. …the Parties agree to search for ways to alleviate water shortage and to co-operate in the: a. development of existing and new water resources …; b. prevention of contamination of water resources; c. mutual assistance in the alleviation of water shortages; d. transfer of information and joint research and development in water-related subjects, ….”} A few years later, under the sponsorship of the Norway Government, a Jordanian-Israeli-Palestinian Declaration on Co-operation on Water-Related Matters and new and additional water resources was produced.\footnote{Declaration on Co-operation on Water-Related Matters (13 February 1996), 36 International Legal Materials, 1997, p. 761.} In its joint statement, the Declaration stated:

“They look to the future with a view to provide a foundation, through its voluntary implementation, for multilateral co-operation to bring additional water resources to the people in the region.”\footnote{Ibid., p. 763.}

Obviously, political decisions play a candid role in reflecting the fact that sovereignty is not an absolute concept, and that the best treatment for water deficiency is through multilateral arrangements rather than hostility. However, as it can be realised, the produced agreements and
declarations were either not binding or did not include all **Core Parties** to the water crisis, a result of which the agreements are to some extent futile. For instance, the 1996 Declaration stated that:

“Although the Core Parties in the Middle East Peace Process are considered to be Jordan, Syria, Israel, Lebanon, and the PLO … for the purpose of this Declaration, the term the **Core Parties** means those Core Parties who are signatories to the Declaration [that is Israel, Jordan and the PLO].”\(^{128}\)

In this respect, the parties of the declaration and the co-sponsors of the Middle East Peace Process expressed “their hopes that the other Core Parties will join to this Declaration”\(^{129}\) in the near future.

In general, nonetheless, the initial bilateral agreements and declarations suggest that a stance of co-operation is overwhelming the general atmosphere in the Middle East.\(^{130}\) While the many political, ideological, and economic questions are all intertwined, there is some hope that interim agreements can be worked out on a permanent basis on the water issue in the region and that this will make way to a more comprehensive agreement joining all concerned parties. The bilateral nature of the peace talks, however good, will not end the water crisis if other unwilling riparian states keep on disregarding international law of environmental protection.

### 3.4 International Law and the Jordan River Basin

It is imperative at this stage, and before entering into any specific details about how far the riparian states of the Jordan Basin respected international law, to review the most notable features of the 1997 Convention in the context of the Middle East special criteria.

First of all, notwithstanding the customary law nature of the obligation prescribed in Article 6, it is implicitly a framework agreement that can be adjusted to the specific characteristics and uses of particular international watercourses via specific agreements to be concluded between watercourse states. Whereas the practical necessity of flexibility and compatibility of having an umbrella agreement to such complicated issue is desirable, it could be that the real reason for adopting such provision had more to do with political reality than with physical phenomena. Pressure brought by upstream riparian states, and states that enjoy military or geographic advantage, was against the very idea of codification in this field. Israel, for instance, due to its military advantage, tends to oppose any codification that may curb its freedom of action.\(^{131}\) While the 1997 Convention makes undertaking watercourse agreements the centre of the whole

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130 Both Article 6 and Annex II of the Jordan-Israel Treaty makes clear that the parties agree (1) to maintain allocations in accordance with Annex II; (2) to exchange technology and research regarding the development of new sources of water; (3) to create new sources of water; and (4) to jointly ensure the quality of the shared water resources. Article 6 serves to remove disputes over water resources as a source of disagreement between the parties and prevent unilateral actions that otherwise may lead to military skirmishes or full scale armed conflict. Article 6 has proved effective up until the present, as no armed conflicts over water have been reported. See however, Alia Shukri Hamzeh, *Ten-year Anniversary of Jordan-Israel Peace Treaty*, Jordan Times, Oct. 26, 2004, available at [http://www.jordanembassyus.org/10262004007.htm](http://www.jordanembassyus.org/10262004007.htm).

provisions as provided for in Articles 3 and 4, this, in practice, is not always an easy task to achieve. A model of ‘agreement achieving’ may be meritorious in the context of highly integrated homogeneous societies such as the European Union or the United States. In a “fragmented area like the Middle East, where political symbolism and nationalism are often more important than substance, entitlement to ‘butt’ into a water agreement between other states is not likely to receive overwhelming support.” The vast amount of conducted but not concluded arrangements and agreements over the Jordan Basin is just an example.

Secondly, the elastic nature of the normative rules introduced in the Convention will most likely hinder their application in practice. This will naturally prejudice those states that are at an economic, military or geographical disadvantage. The three main obligations stipulated are the duty not to cause appreciable harm, the duty to equitable and reasonable utilisation of the watercourse and the general duty to co-operate. Of these obligations, only the duty not to cause appreciable harm appears the easiest to understand and prove, being a matter of fact, and hence legal certainty is provided for.

Yet, in contrast to the ILC Draft Articles, the 1997 Convention seems to favour the ‘equitable utilisation’ of a watercourse to the ‘no-harm’ principle so far as they contend. The second paragraph of Article 7 implicitly acknowledges that harm may be caused without engaging the harming state’s responsibility. All the harming state need do is to take measures “in consultation with the affected state to eliminate or mitigate the harm.” In this regard, it could be argued that by having the least contentious obligation to prevent harm outweighed by the obligation to equitably utilise the shared watercourse is heinous and most unwarranted. Several reasons can be provided for this conclusion. First, a utilisation of an international watercourse is simply not equitable if it causes other watercourse states appreciable harm. Secondly, it would be irregular to speak of the right to pollute within equitable shares when, in a limited watercourse like the Jordan Basin, the fact that significant harm to the environment is almost impossible to rectify.

Thirdly, this dictum is static and unduly advantageous to those who were first to develop it. Moreover, this may have the effect of re-introducing the old-fashioned controversy over absolute sovereignty (Harmon Doctrine) and the absolute territorial integrity of the shared river system. And finally, it is anomalous to have such a theory override or replace one classical maxim of Islamic law, which is followed by the majority in the Middle East region that states that avoidance of harm has priority over the acquisition of benefits.

Finally, the 1997 Convention does not have any provisions dealing with artificial, large-scale out-of-basin alteration of international watercourses. This problem is specifically important to redress being the most problematic over the Jordan River Basin. This problem could well be addressed under the heads of significant harm or equitable utilisation. However, a direct consideration of the issue in the Convention would have been more preferable.

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132 Ibid., p. 25.
133 This is even clouded with the ambiguity entailed in the term ‘significant’.
In general, however, applying the various customary rules of international law, especially those reflected in the Helsinki and the 1997 Convention, to the Jordan basin reveals the following:

First, all the Jordan River riparian states can only rely on the ‘limited territorial sovereignty’ doctrine in pressing their claims over their shared watercourse. Any other basis for their claims should be deemed invalid. Lebanon for instance cannot rely on an ‘absolute sovereignty claim’ over the Hasbani River any more, nor can any claim of ‘absolute integrity’ be of any help to its claimant. Nonetheless, because of the sensitivity of the water crisis in the Middle East, an application of the ‘community of interest’ approach, as reflected in the Gabcikovo case, is probably the best way of avoiding disputes in the region. Unfortunately however, there are no signs of consideration of this at the current time.

Secondly, Syria could be in breach of its duty to participate in good faith in negotiations to prevent harm to the watercourse system by showing reluctance to enter into agreements such as the 1996 Declaration on Co-operation on Water-Related Matters. Thirdly, Israel seems to violate international law rules by using the Yarmouk to such an extent that adversely affects the water supply of Jordan (principle of prohibition against appreciable harm). It is also in violation of the procedural obligations, which stress the value of consultation and notification, in particularly as Israel has not indulged in any consultation with other co-riparian states regarding the diversion of the Jordan River water to the Negev desert, and has therefore never received an approval for such transfer. Further, Israel violates International law rules, specifically the principle of equitable utilisation, by dictating the quantity of water the Palestinians can use in Gaza and the West Bank.

Moreover, the Jordan River riparian states seem to be in breach of the procedural obligations regarding information. While the obligation to share data is reaching widespread acceptance, water resources data in the Middle East are still considered classified and are withheld from neighbouring nations and users. Obviously, without shared, accurate data available to all parties, fair negotiations cannot be conducted or completed. One complication of concealing data is that unintentional changes in a river flow (perhaps due to natural variation or global climate change) could be perceived and misinterpreted by downstream nations as intentional manipulations rather than geophysical events. Thus, it is imperative for basin states to share hydrologic data and to develop a mechanism to actually assist in the handling of this data and to ensure access to all parties. International organisations under the umbrella of the United Nations may play an important role in promoting this idea via the development of a computer networks, such as Internet. Further, the state concerned shall begin to abide by the procedural obligation to notify, inform and consult potentially affected states in order to make way for more effective preservation of the shared international watercourse of Jordan. These are international legal obligations formed as part of customary international law. Surprisingly, this has actually been

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136 For example, when Israel withdrew from the Gaza strip it left little data behind and in the West Bank the date continue to be exclusively in the hands of the Israelis where Palestinians are denied access to them on the pretext of security. See Y. Nasser, supra note 121, at p. 56.
followed by some basin states in the Middle East. For instance, prior to the closure of the Ataturk Dam on the Euphrates River, Turkey notified the downstream nations of its action, which effectively reduced the flow on the river to zero.\textsuperscript{137} Although both Syria and Iraq complained, Turkey’s obligation to notify was met.

In sum, international customary law obligations, as reflected in the 1997 Convention, have been violated by one way or another by the Jordan River basin countries. The prime obligation to cooperate is massively abused since there have been no comprehensive regional treaty that combines all the states concerned. In this regard, the Peace Process has played an essential role in generating a co-operative mode on a sub-regional level echoed in the inclusion of the above obligations in both the 1993 Agreement and the 1994 Treaty. The parties to these agreements are now obliged to implement these duties according to both the customary rules and their treaty provisions.

Amongst these obligations, the duty to utilise an international watercourse in an equitable and reasonable manner deserves a close attention. Because the fulfilment of this obligation is dependent on the realisation of several factors reflected in Article 6(1) of the 1997 Convention, it is imperative to examine the relevance of the ‘equitable utilisation’ principle and its real implication to the Middle East region. In particular, we should answer the question that relates to the scope and role of the socio-economic factors and how they play themselves out in the region. Indeed, the identification of the real needs of all the concerned states and then the prioritisation of these needs are the chief elements of resolving any dispute over the equitable utilisation of the natural water resource.

It has been mentioned above that the perennial obstacles to negotiations in the Middle East over the water issue have been widely based on differing perceptions of ‘needs’ and ‘historic rights’. Israel’s priority to green the Negev desert and the Settlement of new immigrants, a matter of ‘national economic importance’,\textsuperscript{138} is opposed by their Arab neighbours who identify their needs primarily as the resettlement of Palestinian refugees and the supply of fresh drinking water. Here, it should be recalled that under international law, despite the reality that no use of international watercourse enjoys inherent priority over other uses according to Article 10(1) of the 1997 Convention, Article 10(2) provides that a special regard shall be given to the requirements of vital human needs. In this case, the need to resettle Palestinian refugees and to supply them with fresh drinking water takes priority over Israel’s national economy. This factor should not only play a role in the identification of the real needs of the states concerned, but also in the prioritisation of these needs and the resultant apportionment of the available water resource.

In this connection, however, it should be remembered that the Arab riparian states on the Jordan


River could not rely on the conviction that only the needs of the basin area should be considered. Although the Negev desert is not located on the basin area, Israel would still have the right to divert water to it on the basis that the relevant consideration, in an equitable utilisation, is the interest of the state as a whole and all its inhabitants and not merely the interests of the basin areas of Israel. Nonetheless, the other states could rely on a related but different hypothesis of ‘preferential use’. That is the possibility of preferring the needs of the basin over the needs of areas located outside the drainage area. As such, Israel may be in violation of the rules which stress that the water shared should be used for satisfaction of the needs of the population inside the basin, before it is transferred outside the basin;\(^{139}\)

It is worth mentioning in this regard that there is no real disparity in the extent of each ‘need’ of the Jordan River basin states in as much as their dependence on this medium is concerned. All these states rely to a large extent on the water of this watercourse for their welfare and approximately all have equal proportion of population. The real difference however lies in the direction this need is focused, a matter which ultimately depends on the position or level of economic development each country possesses. Amongst all the Jordan River basin states, Israel is the most developed and the wealthier. It is also the one that retains the largest portion of the Jordan River water. Yet, other states cannot, under international law rules, hinge on this factor for attaining any further portion of the river’s water. As has been discussed before, a comparison between the level of economic development of the disputing states has been regarded as immaterial to the process of watercourses apportionment. What is relevant here is the degree of the state’s dependence on the watercourse and not its stage of economic development. Accordingly, Syria, which currently utilises a major part of the Yarmouk water, is violating international law rules which stresses the importance of Jordan’s climate, past and present utilisation of the water, the economic and social needs of Jordan, and the population dependent on the Yarmouk water.

Secondly, as to Israel’s claim of its ‘historical use’ over the groundwater in the Mountain Aquifer in the West Bank territory, international law and the 1997 Convention provide a clear answer. Israel claims that it was the first to develop the water exploitation projects in the area and hence could claim a strict historical use of its waters. This claim is known as the doctrine of prior appropriation under which a permanent right to the water of an international river may be acquired by simple prior appropriation. Its inherent rationale is that “he who first invests labour on a stream deserves its benefit.”\(^{140}\)

However, the argument against the doctrine of prior appropriation has always been strong in international law. A strict application of the rule might block beneficial uses or improvement of uses in the future. Secondly, as has been stated by the Supreme Court of the United States, a “…prior application is very frequently the accident of physical location, and were the rule to apply to states, their destiny will be determined not by their present or future necessities for the use of their natural resources, but rather by accident.”\(^{141}\)

\(^{139}\) This also dissent from the PCIJ judgement in the *Territorial Jurisdiction of the International Commission of the River Oder* where it held that there is no “exclusion of any preferential privilege of any one riparian in relation to the other”, PCIJ, Ser. A, No. 23, p. 27.


\(^{141}\) *Wyoming v. Colorado*, 259 US 419 (1922), at 436.
previous section, the existence of prior uses is not attributed any higher status in the listing of the relevant factors of the equitable and reasonable use of international watercourse. The relevance of this factor can only be counted in connection to the state’s economic dependence on the shared waters and on the notion of their vital needs.

Moreover, it is difficult to logically accept this theory unequivocally. In general, it presupposes two separate but related elements: social utility and engineering efficiency. That is, “a use is beneficial if it involves some socially accepted purpose and if it makes a reasonably efficient use of the water.” However, this is only effective when the issue involved clearly reveals the justice and fairness of a case, and when the litigants are disposed toward an agreement. In fact, the Statute of the International Court of Justice permits decisions on this basis only if the parties specifically so agree. Finally, states practice does not give any primacy of the doctrine of prior appropriation.

The limited treaty practice available suggests that “there is support for the proposition that prior appropriation creates only a qualified and not an absolute right.”

4. Conclusion and Recommendations

It is obvious from the previous discussions that the water crisis in this part of the world is exacerbated by the use of military power which was also behind the current allocations and uses of the Jordan River. Hence, international law that regulates the use of force is bound to play a major role in the settlement of the conflict. But since there was no solution achieved in that direction, it is wise only to consider how to alleviate or reduce future risks of water-related conflicts.

Of course, the rules and principles of international law related to protecting the environment, specifically those outlined in the 1997 Convention and the Helsinki Rules, are of a significant factor in easing any future disputes. Accordingly, we can relate these principles to the situation in the Middle East:

The entire obligations that reflect customary international law rules must be respected. Accordingly, no state can inflict environmental harm on another without being deemed as breaching its international responsibility, and each state is under an obligation to co-operate to prevent environmental harm and to equitably use a shared watercourse. The latter obligation stands as the prime source of contention in the Middle East, being exacerbated by the fact that water supplies have generally been an outcome of military gains. On the regional level, efforts in the twentieth century to devise and apply equitable schemes for sharing the waters of the Jordan Basin have been defeated by the variety, complexity, and persistence of political obstacles among the users of the river basin.

143 Article 38 (2).
144 But note the 1923 Agreement on the Full Utilisation of the Niles Water which sought to protect Egypt’s natural and historic rights in the waters of the Nile, United Nations Legislative Texts and Treaty Provisions Concerning the Utilisation of International Rivers for Other Purposes than Navigation, New York, United Nations, 1964, Doc. ST/LEG/SER.B/1, p. 143.
145 Cited in B. A. Godana, supra note 19, p. 54.
146 See article 2(3) and 2(4) of the United Nations Charter, 892 UNTS 119.
It should be noted, however, that the regional disharmony is not the sole reason behind the absence of an effective settlement of the crisis. International law itself could be characterised as being weak in handling the international watercourses disputes. For example, the equitable utilisation principle in Article 6 of the 1997 Convention means that, in contrast with the Harmon Doctrine, each basin state is entitled to a reasonable and equitable share in the beneficial use of shared water. Equitable does not mean equal use. Rather, it means that a large variety of factors, including population, geography, availability of alternative resources, and so on, must be considered in the allocation of water rights. Nonetheless, this article does not provide us with a precise objective or operational distinction of what is ‘reasonable’ and what is ‘equitable’. All that may have been offered is some general compilation of relevant factors to be considered in each case which do not fit perfectly in a hostile environment like the one in the Middle East.\(^{147}\)

Leaving such an important matter of resolving competing water claims to negotiation, mediation or doctrines of basic fairness and justice have proven ineffective simply because the matter relates to national security of the competing nations.\(^{148}\) Indeed, in the current position of international law, Israel can insist, as she does, on a definition of equitable use that is based on a much lower per capita water consumption level for Palestinians and other Arabs than for Israel.\(^{149}\)

There is obviously a need for establishing treaty arrangements in the region. Without an agreed upon treaty, international law rules could not be expected to do more than provide a set of guidelines for what must be very complex and difficult negotiations should they occur, and to govern the execution and maintenance of any resultant treaty. Having established that there exists no regional customary law applicable to the use of the watercourse system basins in the Middle East, comprehensive regional treaty governance of the situation is most needed. Although in the past this proved difficult to achieve on a negotiation table,\(^{150}\) it seems to be the next step in the hopefully on-going peace talks in the region. This should be carried out with specific weight and discretion given to a Committee which shall weigh all the relevant factors of an equitable and reasonable utilisation, bearing in mind those reflected in Article 6 of the 1997


\(^{148}\) Note also the various weaknesses in the procedural obligations for environmental protection outlined in Phoebe N. Okowa, *supra note* 48.

\(^{149}\) Leslie C. Schmida, *supra note* 146. There is thus an urgent need to define fair allocations of water in the Middle East before progressing on any environmental protection scheme related to the water sector in the region. This has not proved to be an easy task. For example, and though in a less volatile environment, lack of co-operation between the Nile delta countries has led to the water problem being exacerbated in that region. While Egypt has tried to mitigate the likelihood of reducing its allocated waters, which could have been reduced by up to 5,400 mcm if Ethiopia proceeded unilaterally in executing its own water projects, by convening a forum called Undugu Group, Ethiopia, which had about 85% of the headwaters, was not amongst the states invited to the discussion. Also the civil war in Sudan has side-tracked one key water scheme - the Jongelei Canal that was to drain Sudan’s southern swamps and provide Egypt and Sudan each with two billion cubic meters of water a year. P. J. Veslind, *The Middle East’s Water: Critical Resources*, 183:5 National Geographic, May 1993, pp. 38-71.

\(^{150}\) Consider for instance the Israeli Ministry of Agriculture statement in August 1990 announcing that: “it is difficult to conceive of any political solution consistent with Israel’s survival that does not involve complete continued Israeli control of the [West Bank’s] water and Sewerage systems, and of the associated structure...” *Jerusalem Reports*, 18 August 1990.
Convention, and try to draw a list of the most relevant ones. Negotiations are then should be made to agree upon a fair allocation of the shared water resource.

Once such regional arrangements are achieved, an international supervision for the fulfilment of these becomes most vital. In this regard, while the theoretical possibilities of international water resource institutions range from simple schemes which function as mere consultation groups to permanent, quasi-sovereign organisation enjoying far-reaching autonomous authority, the latter example would be more fitting to the circumstances. Simple institutions such as the Egyptian-Sudanese Permanent Joint Technical Committee and the Informal Technical Committee of all Nile Basin States, for instance, though proved to be effective forums for inter-governmental co-operation and co-ordination between some states, lacked the executive powers in managing the water system in the whole region.

Of course, Jordan, Lebanon, the West Bank and Gaza, and Syria can bring a claim to the International Court of Justice relying on the same sort of general principles that Hungary put forth in the Gabčikovo Case. However, it should be borne in mind that the matter differs in that the latter, although involving caustic political and geographical complexities, does not rise to the severity of an ‘existence or non-existence’ issue, which the former case entails. While Hungary, in the Gabčikovo Case, has based its claim on some general principles of international environmental law beside the claim of territorial sovereignty, it is never difficult to comprehend why the Jordan riparian states’ main concern and political claims has never been particularly directed to the water preservation, but rather on water allocation and sovereignty. For example the Palestinian recent claims are that any water extraction within the West Bank for Israel civilian settlements is illegal and in violation of the Geneva Convention concerning the rights and obligations of what is defined as a ‘belligerent occupier.’ Under the Geneva Convention the Utilisation of a territory’s natural resources by a ‘belligerent occupier’ for civilian purposes is not allowed. In this case Israel will not be able to claim prior historic use since all of the wells were drilled under the authority of the Israeli Civil Administration after the 1967 occupation of the West Bank. However, from an environmental point of view, and although Israel has been perceived as the prime transgressor of water rights in the region, it will be interesting to have the Jordan River case brought before an international tribunal based on both sovereignty and environmental claims. All that has been initiated in the past was merely a complaint before the United Nations, by Syria and Jordan (in 1951 and 1952), against Israel in respect of the waters of the Jordan River Basin. These complaints, as it is imagined, could have been more productive had they been brought before the International Court of justice or even to the attention of the Security Council, specifically if they had included an environmental dimension.

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151 There is a world-wide trend towards the establishment of river basin organisations as the best vehicle for the harmonious and optimal exploitation of shared water resources. See B. A. Godana, supra note 19.

152 See B. A. Godana, ibid.


155 It is notable that the fate of these major Israel water extractions, mainly in the eastern basin of the Mountain Aquifer, will have to be determined as part of the final stage of the Israeli/Palestinian negotiations based on the 1993 Declaration of Principles.

The water crisis in the Middle East is severe because of the water scarcity, the economic dependence on this resource in the region, and the complexities of water’s use as a political weapon. International law offers little to solve water disputes and state practice seems to lean heavily on attaining mutual agreements for their resolutions. Nevertheless, international environmental law offers some customary international rules that must be adhered to by all states such as the equitable utilisation of the shared watercourse and the procedural obligations which precede any action with a potential to seriously affect other co-riparian states. Consequently, it is hoped that agreement, on questions of a just and equitable formulation for water allocations between all five riparian states in the Jordan River basin, will be reached within the framework of a comprehensive peace treaty. There is some confidence that an agreement is inevitable considering the severity of the problem and its realisation by the riparian states. While providing a solution to the water conflicts in the Arab-Israel dispute is not itself a sufficient condition for peace, it is undoubtedly a necessary condition.

Given the specific characteristics of the geography and the dispute of the shared waters of the Jordan River, it seems that a ‘community of interests’ approach is the only one that presents an important opportunity for political benefits in the Jordan Valley. For the genuine success of any conclusive agreement in that direction, it should include provisions for the establishment of an International Joint Commission for the Jordan River Basin along the lines of the International Rhine Commission. This commission should serve as a data bank, and be able to manage, monitor and control water resources. It should also be able to draft and promulgate environmental quality and pollution control regulations, which must be legally binding for both surface and groundwater resources. Also, it should include an agreed upon procedure for the adjudication of disputes based on various phases starting with negotiations, review by a higher level Joint board, mediation, arbitration and finally by some form of agreed upon adjudication binding on all parties, either by arbitration or an international court.