

Dispute Over the Euphrates and Tigris: Institutions as Possible Responses

by

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Abstract

Water has become a source of tension among the states riparian to the Euphrates-Tigris river basin (i.e., Turkey, Syria, and Iraq) mainly due to the initiation of the major development projects. Regarding the current state of affairs that can be characterized as conflictual rather than cooperative, searching for the modalities of replacing *conflict* with *cooperation* is the underlying goal of this paper. In a series of international conferences convened by the specialized agencies of the United Nations and in the works of the international water law community, serious efforts have long been devoted to furnishing a set of general principles and norms for achieving effective and equitable management and utilization of transboundary water resources world-wide. In this respect, the paper underscores the significance of designing institutions that would be instrumental in promoting cooperation among Turkey, Syria, and Iraq by applying some of these principles and norms as well as rules and decision-making procedures to the Euphrates-Tigris river basin within the context of an international regime.

Introduction

The Euphrates and Tigris river systems are often considered as forming one basin because they merge in the Shatt-al-Arab waterway shortly before emptying into the Persian Gulf. Both rivers rise in Turkey and flow through or along the Syrian territory before entering Iraq. The average annual discharge of the Euphrates is 32 billion cubic meters (bcm). Approximately 90 per cent of the water of the Euphrates is generated within Turkey, whereas the remaining 10 per cent originates from Syria. As for the Tigris and its tributaries, the average annual discharge is 50 bcm. Turkey contributes approximately 40 per cent of the total annual flow, whereas Iraq and Iran contribute 51 per cent and 9 per cent, respectively. The amount of water carried by the Euphrates and Tigris rivers can be said to be fairly enough for various uses by the three riparians. However, physical characteristics of the rivers coupled with the initiation of the major development projects by the riparians put exceeding pressures on the supply of the river system.¹Hence, unsatisfied demand for more water exacerbates tension in the relation of the riparians with each other.

¹Peter Beaumont, "Transboundary water disputes in the Middle East," *International Conference on Transboundary Waters in the Middle East, Prospects for Regional Cooperation*, Ankara, Bilkent University, 2-3 September 1991, p. 11.

Dispute over water

Indeed, the riparian relations during the period between the 1920s and the 1960s can be characterized as harmonious. Since, none of the countries had been engaged in major development projects that could have resulted in excessive consumptive utilization of the Euphrates-Tigris river basin waters. There was, therefore, no exigency during that period in devising a regime framework for better management and utilization of the waters in the basin. Even the inefficient and ineffective development and management practices of the three riparians did not have substantial negative impacts on the quantity and quality of the waters. Populations were at manageable levels, and the rivers were flowing depending only on the natural monthly and yearly variations in discharge. That, however, was the only serious concern of the two downstream riparians because of the devastating effects of the floods.

The smooth nature of riparian relations began to change by the end of the 1960s when both Turkey and Syria began to draw up plans for large-scale surface irrigation schemes. Then, a basin-wide accord was put on the diplomatic agenda as a response to the emerging crisis among the riparians over the water issue. There were, indeed, three notable crises in the hydropolitical history of the Euphrates-Tigris river basin. The first crisis broke out during the impounding of the Tabqa and Keban dams, in Syria and Turkey, respectively. The Tabqa and Keban dams were completed a year apart between 1973-75, when particularly dry seasons had been experienced by coincidence, one after another. The impounding of both dams in the following two years escalated into a crisis in the Spring of 1975.² Iraq accused Syria of reducing the river's flow down to intolerable levels, while Syria put the blame on Turkey. The Iraqi government was not satisfied with the Syrian attitude, and mounting frustration resulted in mutual threats bringing the parties to the brink of an armed hostility. A war over waters was averted by means of the efforts of Saudi Arabia that mediated for extra amounts of water to be released from Syria to Iraq. The second major crisis among the riparians of the Euphrates-Tigris river basin occurred during the impounding of the Ataturk dam in 1990. On 13 January, 1990 Turkey temporarily tampered with the flow of the Euphrates river in order to fill the Ataturk dam. The decision to fill the dam that would last for one month was taken much earlier and Turkey had notified its downstream neighbours by November 1989 of the pending event. In its note to the downstream countries Turkey explained the technical reasons, and

²Gun Kut, "Burning waters: the hydropolitics of the Euphrates and Tigris," *New Perspectives on Turkey*, No. 9, Fall 1993, p. 5.

provided a detailed program making up for the losses of the two downstream countries.³ However, the Syrian and the Iraqi governments protested officially to Turkey, and consequently called for an agreement to share the waters of the Euphrates, as well as a reduction in the impounding period. The third crisis took place in 1996 when Turkey started the construction of the Birecik, an after-bay dam, on the Euphrates river which was designed to be built to regularize the waters of the Euphrates as the water level reaches its maximum at the Ataturk dam during the generation of hydroelectricity at peak hours. Both Syria and Iraq sent official notes to the Turkish government in December 1995 and January 1996 indicating their objection to the construction of the Birecik dam. Because, in their contention, the Birecik dam would affect the quantity and the quality of the waters flowing to Syria and Iraq. It was these confrontations and the words of war that raised fears world-wide of a Middle East water war.

An overview of the above crises reveals that the initiation of the major development projects caused increasing demands on the waters of the river system, which, in turn, exacerbated the tensions among the riparians. Indeed, since 1965 there have been a series of bilateral and trilateral negotiations among the parties over the utilization and development of the Euphrates river. For instance, beginning in 1966, Syria and Iraq started a series of bilateral negotiations. Iraq iterated its claim to acquired rights in a fixed share of the Euphrates discharge. Syria, by contrast, argued that potential needs must be weighed against acquired rights, and in the 1966 talks, rejected the Iraqi claim to acquired rights. In 1971 and 1972, there were two rounds of fruitless talks between Syria and Iraq. Even though, an agreement was reached, Syria later declined to sign the agreement. The year 1973 saw another round of unproductive negotiations. By this time, the reservoirs of both the Keban and the Tabqa dam sites had begun to fill, threatening to reduce (albeit temporarily) Iraq's flow down to unacceptable levels. Iraq issued a formal protest and took the matter to the Arab League. These matters have lain ever since. In 1980, all three

³At the November 1989 meeting of the Joint Technical Committee, Turkey explained the technical reasons behind the interruption of the flow and gave a detailed program for making up for the losses of the two countries. Hence, Turkey assured that Syria would receive a minimum flow of 120 m³/s from tributaries below the Atatürk Dam, as well as additional flows at a rate of 750 m³/s from November to 13 January. Thus, the Euphrates discharge into Syria averaged 768 m³/s in this period, so during this and the impounding period the average flow would be 509 m³/s within the terms of the 1987 Protocol. Turkey also stressed that the impounding was scheduled for the time when Syrian and Iraqi water requirements were lowest. It was recorded that the total amount of water released during the make-up and closure periods in the average, had not fallen below 500 m³/s. See Turkish Ministry of Foreign Affairs, "Water Issues Between Turkey, Syria and Iraq," *Perceptions: Journal of International Affairs*, Center for Strategic Studies, Ankara, Vol. 1, No. 2, June-August 1996, pp. 101-103.

riparians agreed to establish a technical commission (Joint Technical Committee) for the exchange of information. But, the three riparians soon lost their communication and negotiation platform, and uncertainty in riparian relations became more pervasive.⁴In general, the outcomes of a series of negotiations discussed above were fruitless. The reason behind this failure was that the parties could not reach any consensus on the basic principles and norms (rights and obligations) that would sustain the negotiation process. Hence, this paper endeavors to prepare an agenda consisting of the necessary institutions (i.e., an international regime) that would attain such a goal.⁵

Interdependence and cooperation: the role of international regimes

Throughout a transboundary river basin we observe an interdependent set of relations among the riparians where the impact of physical effects generated in one state is delivered to the other via the river system. The Euphrates-Tigris river basin constitutes such a medium. Since the end of the 1960s when all three riparians initiated major development projects on the rivers, they indeed began to function under the conditions of growing *interdependence*.⁶ Interdependence, in the case being examined here specifies the degree of connectedness. It does not predict, however, what action shall be taken by either of the parties. That is, the position of the riparians could be cooperative or conflict-prone. When Ernst Haas singled out the uncertainty and lack of clarity resulting from growing interdependence, he assumed that interdependence was not a sufficient condition for cooperation, and may even result in conflict.⁷ Thus, if interdependence is not a sufficient condition for cooperation and may even result in conflict, *regimes* may provide the necessary *linkage* between *interdependence* and *cooperation*.

An international water regime through its institutions creates a clear legal framework in which the parties to the dispute can identify their joint gains in the utilization of a transboundary watercourse in an equitable manner. Another major function of international regimes is to facilitate the making of specific agreements by preparing the

⁴John Waterbury, "Dynamics of Basin-Wide Cooperation in the Utilization of the Euphrates," *Prepared for the Conference: The Economic Development of Syria; Problems, Progress, and Prospects*, Damascus, 6-7 January, 1990.

⁵"International regimes are social institutions consisting of agreed upon principles, norms, rules, procedures and programs that govern the interactions of actors in specific issue areas." See Marc A. Levy, Oran R. Young and Michael Zurn, "The Study of International Regimes," *European Journal of International Relations*, Vol. 1, No. 3, 1995, pp. 272-74.

⁶R. O. Keohane and J. S. Nye, *Power and Interdependence: World Politics in Transition*, 2nd Edition, Mass: MIT Press, 1989.

⁷Ernst Haas, "Words can hurt you; or, who said what to whom about regimes," in Stephen Krasner (ed.), *International Regimes*, Ithaca: Cornell University Press, 1983, pp. 23-61.

necessary ground for them. In the final analysis, a basin-wide accord is needed to settle the necessary conditions for effective and equitable allocation and management of the waters of the Euphrates-Tigris river basin. However, the current physical and political setting of the Euphrates-Tigris river basin is not ripe for concluding a sharing agreement as the two downstream riparians insist on. In the Euphrates-Tigris river basin, the three riparians could not conclude a basin-wide accord for efficient and equitable utilization of the waters of the system mainly due to the lack of regularized institutions, and incomplete information. Data regarding the stream flow, precipitation, evapotranspiration, water removals, return flow, salinity, and a host of other variables in relation to land resources are notoriously scarce, incomplete, and open to question in the basin. Information relating to water and land resources of the region are poor and are not exchanged on a regular basis among the riparians. Negotiations between the parties contending for limited amounts of water can only succeed in the long-term if agreements are based on an accurate picture of what amount of water is available. The quantity and quality of the information pertaining to the Euphrates-Tigris need to be improved before the parties engage in agreements which can be beneficial for all.

International regimes, and the institutions and procedures that develop in conjunction with them, perform the function of reducing uncertainty and the risk by linking discrete issues to one another, and by improving the quantity and the quality of information available to participants. Under the rubric of the main features of a water regime in the Euphrates-Tigris river basin, following paragraphs will present the suggested principles, norms, rules and decision-making procedures as the basic components of it. These institutions either in the form of abstract set of principles, norms, and rules, or in the form of specific organizational arrangements, are thought to constitute substantial tools that the three riparians can make use of as attractive institutional arrangements to foster the bargaining process and to persuade others to come on board of supporters of such arrangements.

In the case of the Euphrates-Tigris river basin, the primary sources of the principles and norms as the basic constituents of the suggested international regime can be found in the works of a number of international agencies during a series of conferences convened under the auspices of the United Nations. The outcomes of the lengthy discussions among distinguished experts and scholars during these conferences, as well as the works of the international water law community that are equally valuable efforts for the emergence, evolution and the codification of universal guidelines, yielded a set of principles and norms for effective and equitable management and utilization of transboundary water resources. These general principles and norms are considered to be applicable to specific

watercourses in the world, taking into consideration the physical characteristics and the hydropolitical developments. The issue of equitable, reasonable, and optimal utilization of transboundary water resources was extensively discussed and reviewed during a series of international conferences such as the United Nations Conference on the Human Environment (Stockholm, Sweden, 1972), the United Nations Water Conference (Mar Del Plata, Argentina, 1977), UNDP Symposium: A Strategy for Water Sector Capacity-Building, (Delft, the Netherlands, 1991), International Conference on Water and the Environment (Dublin, Ireland 1992), United Nations Conference on Environment and Development (Rio de Janeiro, Brazil, 1992). The combined frameworks of these successive conferences culminated in a set of general principles and norms that are acknowledged as *guidelines* for effective and equitable management and use of water resources. Besides, the International Law Commission (ILC) of the United Nations set forth principles and rules that may be applied and adjusted in agreements between states situated alongside transboundary watercourses. The Draft Articles of the ILC which are then made into the Convention on the Law of Non-navigational Uses of International watercourses are all incorporated to the discussion below which is on the designing of the institutions for better use and management of the Euphrates and Tigris.

Principles

Principles of an international regime reflect the aims and the premises of the regime, and the purposes members are expected to pursue. In other words, principles give the regime its identity and reason for existence.⁸ It is presumed, in this paper, that if Turkey, Syria and Iraq adhere to the principles described below, it will be easier to resume and proceed the negotiations on the water issue, and to achieve fruitful outcomes.

Principle 1. Effective and equitable management and utilization of transboundary rivers is a key determinant in promoting cooperation

The first principle originates partly from international water law⁹, and partly from the accumulation of international agencies.¹⁰ The principle of "equitable management and

⁸Stephen D. Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," in Krasner (ed.), *International Regimes*, Ithaca: Cornell University Press, 1983, pp. 1-23.

⁹Article IV of Helsinki Rules on the Uses of the Waters of International Rivers, and Article 5 of the Convention on the Law of Non-Navigational Uses of International Watercourses are dedicated to the principle of "equitable and reasonable utilization and participation."

¹⁰The final recommendation of the Mar Del Plata Action Plan stated that "the right of each state sharing the resources to equitably utilize such resources as the means to promote cooperation."

utilization of transboundary rivers" is concentrated on factors which were more crucial and less arbitrary, such as the needs of the states; and it is not simply a formula or system of computing the most equitable allocation to which each watercourse state is entitled. Therefore, this principle does not produce a clear and concise formula which, when all the data is inserted, produces a definitive division of the waters. In other words, the result of the application of this principle would not be an immediate comprehensive reallocation of all the waters in the watercourse. Rather, equitable utilization would enable and prescribe regional initiatives promoting efficiency, conservation, and economy of use.

Efficient use and management of water resources would evidently be achieved through 'demand management' techniques.¹¹ Thus, the following actions are basically determined as the significant components of demand management which would, in turn, increase overall efficiency in use, management and allocation of transboundary water resources, whilst most actions would be taken at the national level: **effective legislation** should be framed to promote the efficient and equitable use and protection of water and water related eco-systems; **pricing** and other economic incentives should be used to

See Asit K. Biswas, *United Nations Water Conference*, Pergamon Press, 1978. Besides, Agenda 21, Chapter 18 emphasized that "transboundary water resources and their use are of great importance to riparian states; in this connection cooperation among those states may be desirable in conformity with existing agreements and/or other relevant arrangements, taking into account the interests of all riparian states concerned." See Agenda 21, Chapter 18: Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources, Report of the United Nations Conference on Environment and Development, UN A/CONF.151/26, Vol. II, 13 August 1992.

¹¹The Delft Declaration stressed the importance of developing effective demand management techniques including institutional development through building appropriate legal and administrative frameworks in the water sector together with improving efficiency by means of introducing economic water pricing. See G. J. Alaerts, T. L. Blair and F. J. A. Hartvelt (eds.), *A Strategy for Water Sector Capacity-Building*, Proceedings of the UNDP Symposium, Delft: International Institute for Hydraulic and Environmental Engineering and UNDP, 1991. pp.17-19. Moreover, the Dublin Statement (International Conference on Water and the Environment, Dublin, Ireland, 1992) set forth the criteria for effective management of water resources: "a holistic approach, linking social and economic development with protection of natural ecosystems should be adopted in water demand management." See Gordon J. Young, James C. I. Dooge, John C. Rodda, *Global Water Resources Issue*, Cambridge: Cambridge University Press, 1994, pp. 161-166. Similarly Agenda 21, Chapter 18 encompassed "integrated water resources development and management" as the first programme area in which it was advised that demand management practices such as changing water uses, human resources development, strengthening institutional capacity for implementing integrated water management including legislation, standard-setting, regulatory functions, monitoring and assessment of the use of water and land resources and creating of opportunities for public participation should all be adopted by the developing countries. See Report of the United Nations Conference on Environment and Development, UN A/CONF.151/26, Vol. II, 13 August 1992, Paragraphs 21 & 22.

promote the efficient and equitable use of water; **comprehensive and integrated national development plans and policies** should specify the main objectives of water-use policy, which should in turn be translated into guidelines and strategies; **institutional arrangements** adopted by each country should ensure that the development and management of the water resources take place in the context of national planning; consideration should be given to the establishment of efficient **water authorities** to provide proper coordination; countries should make necessary efforts to adopt measures for obtaining effective participation in the planning and decision-making process involving users and public authorities (**stakeholder participation**); **water conservation** is a necessity, and appropriate policies and actions are needed to promote management of water more as an economic commodity; countries should accord priority to conducting surveys to determine national needs for administrative, scientific and technical manpower in the water resources area (**capacity-building and/or enabling environment**). In complying with the above criteria, riparians of the Euphrates-Tigris river basin can make use of certain guidelines that have been issued by international agencies like the World Bank, FAO and UNDP whose publications may be instrumental in describing the formulation of national water resources strategy in steps with their instructive and straightforward wording.¹²

Water resources management can be conveniently considered under two headings: supply management, which covers those activities required to locate, develop, and exploit new sources, and demand management, which addresses mechanisms to promote more desirable levels and patterns of water use. To achieve efficient and equitable water resources management, supply and demand management policies should go hand in hand. Since the beginning of the 1970s, Turkey, Syria and Iraq have engaged in giant water development projects. Yet, they all have neglected demand management policies, albeit in different degrees. For instance, Turkey's current water policy and management is more responsive to certain demand management policies such as 'stakeholder participation,' establishment of proper 'water authorities,' 'efficient delivery systems.' Yet, there are many more areas of demand management such as 'pricing' and 'issuing effective legislation' that should be considered by the Turkish authorities.¹³ Notwithstanding, both

¹²*Guide To the Management of Water Resources*, WB, FAO, and UNDP, First Draft for Review in the Expert Consultation on Methodology for Water Resources Policy Review Reform, FAO Headquarters, Rome, 1994.

¹³Özden Bilen and Savas Uşakay, "Comprehensive Water Resources Management: An Analysis of Turkish Experience," in in Guy Le Moigne, Shawki Barghouti, Gershon Feder, Lisa Garbus and Mei Xie (eds.), *Country Experiences with Water Resources Management, Economic,*

Syria and Iraq have experienced ineffective demand management strategies.¹⁴ They are in urgent need to review their national water resources strategies to manage and allocate their water resources more efficiently. The three riparians of the Euphrates-Tigris river basin have vested interests in re-evaluating their national water resources strategy to reach effective and equitable water management policies and strategies at the national level that would, in turn, be harmonized with other riparians' policy through river basin management organization.

Principle 2. National water sector of each riparian is a part of global political economy where adjustments can be made through international trade.

This principle originates primarily from major premises of the political economist approach. Political economists claim that the international trading system has enabled the economies of the region to escape being trapped in the closed hydrological systems to which they have access.¹⁵ Indeed, the past forty years of water management in the Middle East since the initiation of major development projects cannot be explained without such perspectives since the solution to water shortages has lain much more in the capacity of the region's economies to *import food rather than* in agreements to *share inadequate indigenous resources*. This principle denotes that countries of the region, particularly for those the water scarcity is a genuine concern, should reallocate their water resources at the national level by shifting the major emphasis from irrigation to domestic and industrial use. Additionally, to compensate for the overall deficiencies in agricultural production, they could import food stuffs. However the developments are not always that straightforward: most of the countries of the region including the ones facing serious water shortages like Iraq and Syria did not engage in such reallocations at all.¹⁶ One

Institutional, Technological and Environmental Issues, World Bank Technical Paper, No. 175, 1992, p. 143.

¹⁴See Yahia Bakour, "Planning and Management of Water Resources in Syria," in Guy Le Moigne, Shawki Barghouti, Gershon feder, Lisa garbus and Mei Xie (eds.), *Country Experiences with Water Resources Management, Economic, Institutional, Technological and Environmental Issues*, World Bank Technical Paper, No. 175, 1992, p. 151. Also, see *Water Issues in Iraq*, Special Report, p. 2 (the author wished to remain anonymous).

¹⁵J. A. Allan, "The political economy of water: reasons for optimism but long term caution," in Allan (ed.), *Water, Peace and the Middle East*, London: Tauris Academic Studies, 1996.

¹⁶Water Withdrawal in the Euphrates-Tigris Basin. The years indicate last data availability.

	Domestic (%)	Industry (%)	Agriculture(%)
Iraq (1970)	3	5	92
Syria (1976)	7	10	83
Turkey (1989)	24	19	57

(Source: World Resources Institute, 1994-95, New York: Oxford University Press, 1994)

should also mark the fact that for a couple of decades countries like Syria and Iraq have already had experienced quite a great deal of trade in terms of food staples either through imports or exports depending on the harvests of the year in question. This principle emphasizes that such economic adjustments should continue as a response to the growing water scarcity in the Euphrates-Tigris river basin. There is a great need in the region for urgent reconsiderations of water allocation and management practices primarily at the national level and subsequently at basin-wide level. The riparians to the Euphrates-Tigris river basin are likely to depend on domestic food production to a considerable extent, in spite of the fact that they have practiced inefficient and water-wasting irrigation practices for many years. However, the second principle upholds the idea that reasonable and efficient water use and conservation could be realized by importing food (cereals and wheat) through international trade in regions like the Euphrates-Tigris river basin where water stress is getting worse.

Norms

The norms of an international regime can be regarded as a mandate for the rules and procedures of the regime. They indicate what members of the regime must or must not do, that is, what is legitimate or illegitimate. But they are still so general that it is often impossible to determine whether or not specific actions violate them.¹⁷ The norms of an international regime are mostly expressed in terms of issue-specific agreements. Hence, the general principles of the regime for allocation and management of the waters of the Euphrates and Tigris would be translated into specific norms through a water allocation and management agreement. Following statements should be evaluated as the primary norms of an international regime.

Norm 1. The Euphrates and the Tigris rivers have to be considered as forming one single transboundary watercourse system, and managed accordingly

These rivers are linked not only by their natural course that merge at the Shatt-al-Arab, but also by the man-made Thartar Canal in Iraq. Consequently, all existing and future agricultural water uses need not necessarily be derived from the Euphrates. Irrigation water for areas fed by the Euphrates, may also be supplied from the Tigris.

¹⁷Marc A. Levy, Oran R. Young and Michael Zurn, op. cit., p. 272.

Norm 2. Inventory of water and land resources should be drawn up and evaluated jointly

Methods used in each country for data collection, interpretation and evaluation show disparities from country to country and are not readily applicable to transboundary watercourses. Thus, the necessary means and measures should be determined to attain the most reasonable and optimum utilization of resources on the basis of these studies.

Part II (General Principles) of the Convention which embodies key provisions defining rights and obligations of the upstream and downstream states are appropriate, to a certain extent, for formulating the norms of an international regime in the Euphrates and Tigris river basin.¹⁸ To begin with, Article 5 and Article 6 delineate the right to utilize the waters of the international watercourses in their respective territories in an equitable and reasonable manner, and list the factors relevant to equitable and reasonable utilization, respectively. Article 5 states that riparians of an international waterway are obliged to use, develop, and protect the watercourse in an equitable and reasonable manner, and are duty-bound to do so cooperatively. Each riparian has a right of utilization -reasonable and beneficial- equal to that of every other co-riparian. However, 'equitability' in this context does not mean an equal share of the water. Rather, equitability implies the idea of proportionality, a share and usage proportional to a riparian's population and its social and economic needs, consistent with the rights of its co-riparians. Reasonable (or rational) may be explained as exploitation of water or other natural resources in such a way as to conserve the resource for the benefit of the present and future generations through careful planning and management.

On the other hand, Article 6 provides the basis to determine whether the riparians' use of the waters of the Euphrates and Tigris is equitable and reasonable. Article 6 requires that "all relevant factors and circumstances" be taken into account in determining whether a watercourse state's utilisation is equitable and reasonable. It sets forth a non-exclusive list of seven factors to guide the determination. These factors, as well as other relevant factors, must be weighed in applying the general and flexible principle of equitable and reasonable utilisation in the Euphrates-Tigris river basin. Hence, the principal norm of the suggested regime in the Euphrates-Tigris river basin can be formulated as follows:

¹⁸ Convention on the Law of the Non-Navigational Uses of International Watercourses, *Report of the Sixth Committee convening as the Working Group of the Whole*, UN A/51/869, 11 April 1997.

Norm 3. Each riparian has the right to use the waters of the international watercourses in their respective territories in an equitable and reasonable manner¹⁹

This norm relies basically on the doctrine of *limited territorial sovereignty*. A brief account of the official stance of the two downstream riparians vis-a-vis 'the right to use the waters of the international watercourses in their respective territories' displays a totally different picture. To begin with, Iraq maintains that it has *acquired rights* relating to its 'ancestral irrigation' from the Euphrates and Tigris rivers. Thus, the Iraqi government claims that there exist two dimensions of these acquired rights. One outlines the fact that for thousands of years these rivers have given life to the inhabitants of Mesopotamia, and thus constitute an acquired right for this people. The second dimension of these acquired rights stems from the existing irrigation and water installations. Iraq has 1.9 million ha of agricultural land in the Euphrates basin, including the ancestral irrigation systems left from Sumerian times.

Syrian official arguments are more or less overlapping with the Iraqi ones. That is to say, Syrians also claim that Syria possesses acquired rights over the rivers that pass through Syrian territory dating from antique periods.²⁰ Iraq's and to a lesser extent Syria's claims to acquired rights would probably be ignored in line with the specialists' opinion that prior rights have no relevance to equitable water allocation. Concerning acquired rights, most publicists argued that this doctrine should not be applied to international disputes because it is often wasteful and is not conducive to the optimum economic development of the river basin.²¹ The historical or acquired rights doctrine claimed by Syria and more often by Iraq are inadequate in the sense that prior uses of water by downstream countries represent only one of many factors that have to be taken into account in reaching an equitable utilization of a transboundary river.²² On the other hand, Turkey has been advocating the necessity of common criteria in allocating the

¹⁹Recommendation 51 of the Stockholm Action Plan stated that "full consideration must be given to the right of the permanent sovereignty of each country concerned to develop its resources." See *Report of the United Nations Conference on the Human Environment Held at Stockholm*, UN A/CONF./48/14/Rev.1, 1972. Mar Del Plata Action Plan also stated that "national policies should take into consideration the right of each state sharing the resources to equitably utilize such resources as the means to promote cooperation." See Asit K. Biswas (ed.), *United Nations Water Conference*, op. cit., pp. 1-6.

²⁰Syrian Proposal for the "Draft Decision on the Work of the International Law Commission at its Forty-fifth Session," *Asian-African Legal Consultative Committee*, Thirty-third Session, Tokyo, 17-21 January 1994, p. 4.

²¹Jerome Lipper, "Equitable Utilization," in A. H. Garretson, R. D. Hayton and Olmstead (eds.), *The Law of International Drainage Basin*, Dobbs Ferry: Oceana Publications, 1967, pp. 50-51.

²²Turkish Ministry of Foreign Affairs, op. cit., p. 101-103.

waters of the Euphrates-Tigris basin, based on the principle of equitable utilization which is grounded in the doctrine of *limited territorial sovereignty*. In order to utilize water in an equitable manner Turkey proposed a project called the Three-Staged Plan (TSP).

The principle of equitable utilization is the most widely acknowledged principle in international water law for allocating the waters of a transboundary river. In order to reach an equitable and efficient allocation in disputed waters, the countries should take certain factors into consideration, such as socioeconomic, hydrological and geopolitical conditions. The list of these factors are not exhaustive and if other national and natural resources are available to meet the needs of the co-riparians, these resources have to be taken into account as well.²³ Thus, according to both Helsinki Rules and the works of the International Law Commission (ILC) which relate to the climate, geography and hydrology of the Euphrates-Tigris river basin, Turkey is entitled to a large amount of the waters of Euphrates and Tigris. Turkey not only contributes almost all the water of the Euphrates and much of the water of the Tigris, but also has a large share in the area of the river basin. Besides, Turkey has a favourable climate all through the basin which is most suitable for water storage constructions.

The discussion on the third norm should be complemented with the analysis of another significant article of the Convention, the "no harm rule" which has become a fundamental stone of international customary law. Article 7 of the Convention sets forth that "[w]atercourse States shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse states." Thus, the Convention legally prohibits the causing of any significant harm. However, this paper suggests that, in general, no-harm rule should be applied to certain cases of usage (e.g., water quality). Even state practices support the same view that in the utilization of the international watercourses, priority should be given to the doctrine of equitable and reasonable utilization.²⁴ That is, it is unlikely that states will embrace a no significant harm approach to watercourse development, except in special cases. To illustrate, the equitable utilization doctrine does not seem particularly well-suited to problems of pollution and environmental protection. Moreover, a use which causes significant harm to human health and safety is understood to be inherently inequitable and unreasonable. As a result, in designing an international regime in the

²³Ibid., p. 107.

²⁴Patricia K. Wouters, "An Assessment of Recent Developments in International Watercourse Law through the Prism of the Substantive Rules Governing Use Allocation," *Natural Resources Journal*, Vol. 36, No. 2, Spring 1996, p. 419.

Euphrates and Tigris, application of the no-harm rule should be limited to issues like water quality, human health, and safety.

Norm 4. Riparian states shall cooperate through the establishment of joint mechanisms on the basis of sovereign equality, territorial integrity, mutual benefit, and good faith in order to attain optimal utilization and adequate protection of the Euphrates and Tigris rivers.

In determining the manner of such cooperation, riparian states may consider the establishment of joint mechanisms or commissions, as they deem necessary, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions.

Norm 5. Regular exchange of data and information

The foremost recommendation of the Mar Del Plata Action Plan stated that "to improve the management of water resources, greater knowledge about their quantity and quality is needed; regular and systematic collection of hydrometeorological, hydrological and hydrogeological data needs to be promoted; thus countries should review, strengthen and co-ordinate arrangements for the collection of basic data." This norm should be incorporated to the proposed regime in the Euphrates-Tigris river basin.²⁵

Norm 6. Riparians should agree that when major water resource activities are contemplated that may have possible adverse effects, other countries should be notified well in advance of the activity envisaged

This norm finds direct references in Part III (Planned Measures) of the Convention. It constitutes a substantial part of international customary law defined as "duty of prior consultation." However, in this case, the Convention does not serve the end to formulate major clauses of this norm for a regime framework in the Euphrates-Tigris river basin. Part III of the Convention comprises detailed procedural arrangements such as determining the period for reply to notification. In the event, each transboundary watercourse possesses different and specific characteristics so such time limits should be determined according the specific circumstances of each watershed with the consent of the riparians.

²⁵Recommendation 51 (c) of the Stockholm Action Plan states the necessity of collection, analysis, and exchanges of hydrologic data in international river basins. See *Report of the United Nations Conference on the Human Environment Held at Stockholm*, UN A/CONF./48/14/Rev.1, 1972.

Norm 7. Watercourse states shall, individually and, where appropriate, jointly, prevent, reduce and control the pollution of a transboundary watercourse that may cause significant harm to other watercourse states or to their environment, including harm to human health or safety, to the use of the waters for any beneficial purpose, or to the living resources of the watercourse

Part IV (Article 21) of the Convention deals with protection and preservation of the ecosystems of the environment. Indeed, the complex interconnectedness of freshwater systems demand that freshwater management be holistic (taking a catchment approach) and based on a balanced consideration of the needs of the people and environment. Watercourse states shall take steps to harmonize their policies in this connection.²⁶ An international regime on the allocation and management of the waters of the Euphrates and Tigris should apparently include a set of norms concerning the environmental aspect of the water resources.

Rules

Rules are the most concrete components of the international regimes. They are often stated explicitly in the formal agreements on which regimes are commonly based, and they facilitate assessment of implementation and compliance. The rules of an international regime are prescriptions and guidelines for actions the member states are expected to perform on or refrain from performing. They define the relevant actors, the expected behavior, and the specific circumstances under which the rules are operative. Rules make principles and norms operational, measurable and verifiable, and they institutionalize procedures. The origin and functions of the rules as described by the above sentences may lead to a judgement that it is for the time being not possible to design rules for the Euphrates-Tigris river basin because there does not exist any formal agreement or legislative text to comprise such prescriptions or guidelines. Nevertheless, there are two formal protocols and a plan concerning the utilization (use rules) of the Euphrates-Tigris river basin which make the following elucidation constructive rather than a merely superficial exercise. Prior to the elaboration of the TSP put forward by Turkey, two protocols are identified as notable developments which are also likely to determine the rules for the allocation of the waters of the Euphrates-Tigris river basin.

²⁶Both Stockholm and Mar Del Plata Action Plans encompass recommendations on the control of the pollution of international watercourses. Further, the third programme area of the Agenda 21, Chapter 18 stresses the importance of the protection of water resources, water quality, and aquatic ecosystems. Moreover, the Guide prepared by the WB, FAO, and UNDP includes section on environmental and health issues that should be considered in developing a water resources management strategy.

Though, the wording of these agreements are more straightforward than the TSP, they are not as constructive as the Plan in facilitating the effective and equitable use of the waters of the Euphrates and Tigris.

The Protocol of 1987 Between Turkey and Syria

The Turkish-Syrian Mixed Economic Commission meeting on 17 July 1987 had an important outcome about the negotiations on the water issue. Hence the first arrangement was the Protocol of Economic Cooperation signed by Turkey and Syria in 1987. The Protocol was not solely devoted to the water issue. It was regarded as a temporary arrangement and embodied several articles pertaining to the water issue.²⁷ The text of Article 6 of the Protocol read as follows: "During the filling up period of the Atatürk Dam reservoir and until the final allocation of the waters of Euphrates among the three riparian countries the Turkish side undertakes to release a yearly average of more than 500 m³/s at the Turkish-Syrian border and in cases where the monthly flow falls below the level of 500 m³/s, the Turkish side agrees to make up the difference during the following month." Article 7, on the other hand, stated that "the two sides shall work together with the Iraqi side to allocate the waters of the rivers Euphrates and Tigris in the shortest possible time." While, Article 8 stated that "the two sides agreed to expedite the work of the Joint Technical Committee on Regional Waters." Under Article 9, both states agreed in principle to construct and jointly operate irrigation and hydroelectric power projects.

The repercussions of the Protocol were immediate. Iraq complained to Turkey that it had not been included in negotiations on water. Later, Iraq was reassured by Turkey that the 1987 Protocol was a temporary arrangement, and that a real treaty would eventually be concluded between the riparian states. In sum, Iraqi reaction was that Turkey's commitment was a unilateral one, which is far less than the desired tripartite solution. Syria, on the other hand, pointing to the fact that the arrangement was an interim one, was interpreting the 500 m³/s clause as a prelude to a final partitioning of the waters.²⁸ Moreover, Syria and Iraq asserted that since the annual average flow of the Euphrates River is around 1000 m³/s, Turkey should keep for itself only 1/3 of the flow and let the remaining 2/3rd to Syria and Iraq to be shared by those countries.

²⁷This Protocol covered a wide range of issues from oil and gas exploration, banking and customs formalities to livestock transport and customs formalities. The Protocol had a positive impact on Turkish-Syrian trade. See *Resmi Gazete (Official Gazette)*, Turkey, December 10, 1987.

²⁸Gün Kut, "Burning Waters: The Hydropolitics of The Euphrates and Tigris," op. cit., p. 9.

Water Allocation Agreement Between Syria and Iraq: The Protocol of 1990

Syria and Iraq perceived the interruption to the flow of the Euphrates, due to the impounding of the Ataturk dam, as the beginning of many such interruptions that would be the consequences of envisaged projects within the framework of Southeastern Anatolia Project. Hence, the 13th meeting of the Joint Technical Committee held in Baghdad on 16 April 1990, provided the occasion for a bilateral accord between Syria and Iraq, according to which 58 per cent of the Euphrates waters coming from Turkey would be released to Iraq by Syria. The related article of this agreement read as follows: "Contingent of Iraq passed at the Syrian-Iraqi border is to be with a permanent annual total rate of 58 per cent of the waters of the river passed to Syria at the Syrian-Turkish border. The Syrian contingent of the waters of the rivers is to be the rest of the waters which is 42 per cent from the waters passed at the Syrian-Turkish water."²⁹

The Three-Staged Plan

During one of the Joint Technical Committee (JTC) meetings, Iraq formulated the following plan to share the waters of the Euphrates: 1) Each of the riparian states will notify its water demand for each of its completed project as well as for the projects under construction or planned; 2) Hydrologic data will be exchanged on the Euphrates and Tigris waters; 3) After gathering all relevant data, the Joint Technical Committee will, first of all, calculate the demands of water for the projects under operation, then for the projects under construction, and finally for the planned projects. The determination of needs for these projects will be made separately. Syria, on the other hand, insisted on the point that the Euphrates and Tigris rivers were "shared resources", and should be divided among the riparians according to a quota to be determined by the following procedure: 1) Each riparian state shall declare its demands on each river separately; 2) The capacities of both rivers in each state shall be calculated; 3) If total demand does not exceed total supply, the water shall be shared according to stated figures; 4) In case total demand of water, declared by the three riparians, exceeds the water potential of a given river, the exceeding amount should be deduced proportionally from the demand of each riparian.

During the negotiations there emerged the fact that the water potential was unable to meet the declared needs of the downstream riparians. And, more importantly, there have been rooted uncertainties and inadequacy relating to data on water and land resources. In response to Syrian and Iraqi demands for the formulation of urgent 'sharing arrangements' depending on the criteria that they put forward, Turkey proposed the "Three Staged Plan

²⁹The Official Paper of Syria, May 9, 1990.

for Optimum, Equitable and Reasonable Utilization of the Transboundary Watercourses of the Tigris-Euphrates Basin."³⁰ According to this plan, which, in this analysis, constitutes the essential rule of the proposed regime, the inventory studies of water and land resources of the whole region comprising the territories of respective states would be undertaken and evaluated jointly. Based on these studies, "necessary means and measures to attain the most reasonable and optimum utilization of resources would be defined." The stages of the plan are as follows:

Stage 1: Inventory Studies for Water Resources

These will cover the following activities:

1) To exchange the whole available data (levels and discharges) of the selected gauging stations below: Experts of the three countries shall agree upon the nomination of the representative meteorological stations in the Euphrates-Tigris basin, and exchange data on them as well as the whole available data concerning evaporation, temperature, rainfall, snowfall (if available) on monthly basis for the representative stations;

2) To check the above mentioned data;

3) To measure jointly the discharges at the above mentioned stations in different seasons, if necessary;

4) To evaluate and correct the measurements;

5) To exchange and check data about the quality of water (if available) or (such data after having been initiated);

6) To calculate the natural flows at various stations after the estimation of water uses and water losses at various sites.

Stage 2: Inventory Studies for Land Resources

These will cover the following activities;

1) To exchange information concerning soil classification methods and drainage criteria used and practiced in each country;

2) To check the soil conditions for projects, planned, under construction and in operation;

3) If the studies indicated under item (2) could not be carried for reasons acceptable to all sides, soil categories shall then be determined to the extent possible;

4) To study and discuss the crop-pattern determined according to soil classification and drainage conditions for projects, planned, under construction and in operation;

³⁰Turkey has proposed the updated and revised versions of this Plan during the 4th and 7th meetings of the Joint Technical Committee held in 1984 and 1986, respectively. The Plan was also reiterated in the tripartite meeting at a ministerial level on 26 June 1990 and during the bilateral talks with both Syria and Iraq in 1993.

5) To calculate irrigation and leaching (washing away the soil) water requirements based on the studies carried out in the above mentioned items for the projects planned, under construction and in operation;

Stage 3: Evaluation of Water and Land Resources

These will cover the following activities:

1) To discuss and determine irrigation type and system for the planned projects aiming at minimizing water losses and to investigate the possibility of the modernization and rehabilitation of the projects in operation;

2) Based on the project-wise studies under item (Stage 2. 5) to determine the total water consumption of the whole projects in each country including municipal and industrial water supply, evaporation losses from reservoirs and the conveyance losses in irrigation schemes;

3) To set up a simulation model which present a river system schematically to analyze water demand and supply balance, considering water transfer opportunity from Tigris to Euphrates;

4) To discuss the methods and criteria for determining economic viability of the planned projects.

The makers of the Plan envisaged that the agreement on a proper water allocation should be based on findings derived from basin-wide planning process and all negotiations should emphasize basin-wide planning as a goal. Such a plan depends on the collection, interpretation and evaluation of basic data relating to hydrology, soils, climate and other physical and socio-economic factors. These experts claimed that the presence of evident data anomalies in the available records concerning water and irrigable land resources in the Euphrates-Tigris river basin were noted several times in various reports and the question of data validity was pertinent to the formulation of any firm conclusions. Ozden Bilen demonstrates the conflicting data on the total irrigation project areas fed by the Euphrates in Syria and Iraq.³¹ Bilen asserts that a variety of local and foreign experts contended different figures concerning availability of irrigable land in each riparian country depending on expert observation. Since irrigation is a major water consumer, lack

³¹Özden Bilen indicated that while official figures of Syria and Iraq for the total irrigation project areas fed by the Euphrates are as 773,000 ha and 1,952,000 ha, respectively; experts like John Kolars (375,00 ha in Syria and 1,294,000 ha in Iraq), Ewan Anderson (200,000 ha in Syria) and Peter Beaumont (400,000 ha in Syria) have all noted much less figures for the cultivated areas in Syria and Iraq. See Ö. Bilen, "Projects for Technical Cooperation in the Euphrates-Tigris Basin," Asit Biswas (ed.), *International Waters of the Middle East: From Euphrates-Tigris to Nile*, Water Resources Management Series, Oxford: Oxford University Press, 1994, pp. 96-98.

of consensus on irrigable land potential is an important issue. Such inconsistent figures can mislead the analysts. Hence, data consistency and reliability, particularly on the land to be irrigated is a major concern for all parties and much work needs to be done to clarify existing situation. The Three Staged Plan would serve the end of data collection and survey of water and land resources of the Euphrates-Tigris river basin. This would be jointly performed by the experts from the three riparians so as to acquire a basis for water allocation questions.

Some experts argued that despite the two critical concepts, "utilization of the transboundary watercourses," which rejected the co-sovereignty on the waters as downstream riparians claim, hence the sharing arrangements, and "the Tigris-Euphrates basin" which of course referred to the rivers as a single system, the Plan incorporated elements for a breakthrough.³² It incorporated guidelines and prescriptions to be followed by the three riparians. It was a plan one would rather expect from a supragovernmental body that tries to impose a regime on sovereign states, offering them greater benefits in return for limited application of sovereignty. Moreover, the plan was suggesting the application of high and appropriate technologies in order to minimize water requirements for agriculture, thus injecting the norm of conservation as an essential solution to what is basically a problem of a scarce resource. Further, the plan proposed to regulate the flow of the Euphrates river according to seasonal needs of the downstream countries instead of keeping a steady flow which may not match seasonal agricultural demand-within the limits of the average annual flow of 500 m³/s (the amount that Turkey promised to release at the Turkish-Syrian border by the Protocol of 1987). However, Syria and Iraq insisted on increasing the minimum quota to 700-750 m³/s through *ad hoc* bilateral or trilateral sharing agreements.

The Three Staged Plan stems from the basic idea that the cost of concluding a water allocation agreement in the Euphrates-Tigris river basin is very high for the time being. Therefore, there is a need for a regional regime on the waters of the Euphrates-Tigris. Preoccupation with amounts and individual shares will not help in overcoming water shortage in the region. In other words, dividing up a scarce resource among the users does not alleviate scarcity, irrespective of how equitable the allocation procedure is. Instead, a comprehensive water management regime would provide the necessary framework of principles, norms, rules and procedures for negotiations that would facilitate agreements. The Three Staged Plan initiates the preliminary stages of this regime.

³²Gün Kut, "Burning Waters: The Hydropolitics of The Euphrates and Tigris," *New Perspectives on Turkey*, Vol. 9, Fall 1993, p. 13.

The Three-Staged Plan mainly used the terminology developed by the International Law Commission of the United Nations entrusted with the codification of a law of the non-navigational uses of international watercourses. Thus, an overview of the Turkish official stance as regards the Euphrates-Tigris river basin can bring any researcher to the point that it is in conformity with the essence of the Convention, namely with Part II: General Principles. However, Turkish officials issued a number of critiques on the ILC Draft 1994.³³ Turkey's cautious attitude towards ILC Draft 1994 and later its negative vote for the Convention 1997 basically originates from its deep concern about the fact

³³Turkish official circles asserted that the main purpose of the Convention should be to achieve an equitable and reasonable arrangement regulating water utilization among the watercourse states: "any other approach turns the Convention into a document which unilaterally restricts, in terms of both quantity and quality the utilization rights of states in which watercourses originate; due attention should also be paid to establishing an equitable balance of rights and obligations among all watercourse states." Yet, according to Turkish Government, while these requirements were taken into account to a certain extent in the general principles set forth in Part II of the Convention, the same cannot be said of Part III and Part IV of the document. In fact, as regards the Part III (Articles 11-19) of the Convention, Turkish authorities delivered severe criticisms mainly on the point that Part III comprises detailed procedural arrangements such as determining the period for reply to notification, ignoring the basic fact that each international watercourse possess different and specific characteristics. Accordingly, the Turkish proposal was to reduce the dispositions of Part III to a minimum necessary and to set forth certain general principles regarding planned measures. Turkish authorities had a series of criticisms on Article 5. They were eager to make it clear that the principle of equitable and reasonable utilization should be understood in the light of the fundamental principle of the sovereign rights of states over their territory. It should also be applied by taking fully into account all the particularities of the watercourses including the distinction of whether they are transboundary by nature or international (forming a boundary) between states. In relation to the first paragraph of Article 5, Turkish officials suggested that the principle of 'optimal utilization' should aim at both protecting the watercourse and at optimizing the interests of riparian states in a way which avoids water waste. Yet, in the Turkish standpoint, the first paragraph of Article 5 does not clearly state that 'optimal utilization' should not be restricted to the protection only but should be seen also as comprising the concept of 'efficient use.' The most dramatic change that the Turkish Government proposed on the Convention was deleting Article 7 altogether. The Turkish delegation indicated that this deletion would not eliminate the no-harm rule altogether, but subordinate it to the principle of equitable utilization. To that end, the delegation of Turkey requested that it should be made explicit in the text that the no-harm rule is "without prejudice to the principle of equitable and reasonable utilization." Moreover, the Turkish Government totally disagreed to include Article 33 in the Convention. The rationale is explained as follows: "It would be more appropriate not to foresee any compulsory rules as regards the settlement of disputes, and to leave this issue to the discretion of the concerned states. A framework agreement should not attempt to set forth detailed rules in this respect, since it is virtually impossible to respond to the pressing needs of specific and more often than not very complex cases of water disputes." See *The Turkish Government's Observations on the Draft Articles on the Law of the Non-Navigational Uses of International Watercourses*, Report Sent to the United Nations, General Assembly, Sixth Committee, as Member-States Opinions on the Draft Articles, July 1996.

that certain articles of the Convention might restrain its official stance in future negotiations for the allocation and management of the Euphrates-Tigris river basin. Turkish officials are very keen on the point that the Convention should keep their original aim of constituting a framework document. Therefore, they go on asserting that the Convention clearly comprises provisions which go far beyond that scope. In the Turkish contention, the Convention should be confined to setting forth the conceptual framework and the principles regarding the international watercourses. As to specific watercourses, bilateral and regional arrangements between watercourse states have to be concluded by taking into account the characteristics of each river system.

Decision-Making Procedures: From Joint Technical Committee to River Basin Organization

Decision-making structures of the regimes function as platforms on which participating states meet regularly, thence a certain level of institutionalization tends to occur, though its degree may be minimal at the beginning. Those mechanisms deal with situations requiring collective choice, which may for example, be necessary to amend or interpret the principles, norms, rules or procedures of the regime, and to deal with compliance issues, including monitoring, verification and sanctions against violators. Concerning the Euphrates-Tigris river basin, we see only the Joint Technical Committee (JTC) that used to be acting as a technical forum meeting regularly since 1980 for general project discussions and exchange of hydrological data. After 16 technical and two ministerial meetings, the JTC could not fulfil its objectives and the JTC talks came to a deadlock, having failed even to produce an outline of its report. However, the role of the Joint Technical Committee should not be underestimated. Although its meetings were infrequent and appear to have made little substantive progress on the question of water allocation, it was a useful channel for communication.³⁴ The major issues that led to the deadlock of the JTC meetings were related to both the subject and object of the negotiations: whether the Euphrates and the Tigris be considered a single system or if the discussions could be exclusively limited to the Euphrates. Whether the final objective of the JTC was to formulate a proposal for "sharing" the "international rivers", or was to come up with a trilateral regime for determining the "utilization" of the "transboundary

³⁴The final communiqués of the 16 Joint Technical Committee meetings were reviewed with the permission of the officials in the State Hydraulic Works (DSI) in order to come up with the above arguments.

watercourses."³⁵ In other words, there have not been any consensus among the three riparians on the principles and norms of the negotiation process.

Apparently, institutionalized cooperation through a technical body or joint commission is more successful in preparing the necessary data for decision-makers, collecting and standardizing information, investigating facts, and considering special circumstances which are prerequisites of a more equitable determination of shared water benefits. As most of the watersheds begin to reach the limits of supply due to augmented rates of demand, the flexibility of decision-making procedures to respond to the water stress becomes crucial. This flexibility is most needed to provide new forums for dealing with water allocation problems which cross both time and space.

To set up more appropriate decision-making procedures, in conformity with the original definitions of the regime theorists, a river basin organization with broader tasks should be established in the Euphrates-Tigris river basin along with a technical committee. Indeed, creating some kind of river basin organization (RBO) is a practical step toward efficient and equitable allocation of the waters of the river basin. An international RBO can cover all or any of the following activities: data collection, planning water allocations, raising funds for studies and project implementations, project cost sharing, implementation of projects, operation and maintenance of projects, monitoring water use, control of pollution, and preservation of environmental conditions.³⁶ RBOs range from joint commissions concerned with little more than water allocations, to organizations that have major executive functions. It is advisable to establish river basin organizations in progressive steps so that they may evolve to conform as precisely as possible to the needs of each situation. As a first step, a provisional commission can draft a treaty and constitution for the creation of a permanent joint water commission. This process may call for specific studies initiated by the provisional commission. At this stage a variety of technical assistance programs, even if carried out on a purely bilateral basis, could be useful.³⁷ At a later stage, the permanent joint water commission can both create and regulate any further body that may be

³⁵While, the former concepts of "sharing" and "international rivers" were adopted by the downstream riparians, "utilization" of "transboundary" rivers were strongly advocated by Turkey.

³⁶Joint Technical Committee of the Euphrates-Tigris river basin could have been useful had the Three Staged Plan been fully implemented. Only with the realization of this plan, the JTC would have the functions of *data collection* through inventory studies of water and land resources of the region, and *planning water allocations* according to data retrieved from those studies and on later stages it could monitor water use.

³⁷U.S. Army Corps of Engineers, *Water in the Sand*, U.S. Army, 1991, p. 22.

required, such as a river basin organization charged with the implementation of specific works and studies. A river basin organization for the Euphrates-Tigris basin could be established essentially to collect data and monitor hydrologic system performance. Such an organization could be composed of representatives of each nation, and funded by international funding organizations such as the World Bank.³⁸ The organization should also include a professional staff to provide support and analysis for the deliberations. Such an authority could be a structured forum for debate on water and growth issues. As such, it could package implementable and technically feasible projects into policy options that would be subject to political debate in the individual countries. Such a forum could also be placed to develop consensus approaches among high level technical administrative staff. The authority could also respond to requests. It would encourage the discovery of shared interests and creation of options by building on the shared subculture of water management that crosses individual nations. Under such arrangements, the sovereignty of nation-state action will still be with the nations, but the national political debate would be supported by technical and administrative debate. Although such authorities are conceived still as advisory, they would exercise a great deal of moral and technical influence in any subsequent debates over equity and fairness of allocation of waters.

Conclusion

The above listed institutions are designed to support and determine, to a certain extent, the agenda of the negotiations for the use and management of the waters of the Euphrates-Tigris river basin. These principles, norms, rules, and decision-making procedures are basically derived from the proceedings of a series of international conferences on the water issue, from the works of the international law institutions such as the International Law Commission and International Law Association, and from the documentation that relates to the hydropolitical history of bilateral or multilateral negotiations among the three riparians. As a matter of fact, these can only become operational if the three riparians agree to commence the negotiation process on the use and management of the rivers. For the time being, the two downstream riparians keep insisting on concluding an immediate sharing agreement (comprising only the Euphrates river) that would entitle one third of the waters to Turkey and the remaining amount to the downstream Syria and Iraq to be shared between them according to the Protocol of

³⁸Ismail Serageldin, *Towards Sustainable Management of Water Resources*, in the Series Directions in Development, Washington, D.C., The World Bank, 1995, p. 30.

1990. However, it is generally argued in this paper that the present conditions are not ripe for concluding a sharing agreement due to the aforementioned reasons. Thus, a water use and management regime which can be identified with the principles, norms, rules, and decision-making procedures will prepare the necessary ground to reach an agreement for equitable and efficient utilization of the Euphrates-Tigris river system.

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