

The Impact of Hydro-Politics on the Relation between Turkey and Iraq Since 1980

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1. Introduction

Water one of the most important sources Which is no doubt essential for life surviving, water is vital in many sectors of life e.g. (agriculture, industrial, power and so many things can't be restricted on the mentioned items, water has become major problem facing the world today. Competition over water resources between nations has made it as a vital commodity and a justification for waging wars against its neighbor's countries, there are currently 263 rivers that either cross or demarcate international political boundaries. Geographically, Europe has the largest number of international basins (69), followed by Africa (59), Asia (57), North America (40), and South America (38). The absolute numbers of international basins, as well as the nations through which they traverse, change over time in response to alterations in the world political map. In 1991, soon before Boutros Ghali became Secretary General of the United Nations, he Said, "the next war in the Middle East will be over water, not politics"¹. And, In 1995, the World Bank's vice president for environmentally sustainable development Said "if the wars of this century were fought over oil, the wars of the next century will be fought over water"², there are a lot of example of water disputes, Ethiopia and Egypt, and, Malaysia and Singapore.. In this research we will address the impact of hydro politics on relations between two countries that share two important water basins: Iraq and Turkey which share the Tigris and Euphrates rivers. The Tigris River originates from Lake Hazar in the Taurus Mountains, which is located in the east of Turkey. The lake's maximum length is about 14 miles (22.5 km), while its largest width is 3.7 miles (5.95 km) It is about 249 miles (400 400.7 km) through Turkey, and passes through the Turkish-Syrian border. It is located in the south-eastern part of the city of Elazig and about 50 miles (80 80.4 km) With a length of about 27 miles (43 43.45 km), and then branch to several paths to unite with the Euphrates River and Shatt al-Arab located close to the city of Qarnah in Iraq, and it is mentioned that the river basin covers an area of about 144.788 square miles (\approx 374999.47 square kilometers), while the total length of the river is about 1150 miles (\approx 1850.7 km). The Euphrates River flows from the Black Sea and Lake Van in the eastern Turkish highlands. It consists of two main tributaries, Murat and Karasu. The river enters the

Syrian regions of Karakamis. In Syria the Euphrates is united with the Balikh and Khabur rivers. The Syrian highlands in the south-east direction to enter Iraqi territory in the vicinity of the Qusayba area. It is mentioned that the length of the river is about 3000 km, with a length of about 1230 km in Turkey, while in Syria it is about 710 km long, About 1060 km. and also this two rivers flow across Saudi Arabia and Iran but they didn't usually mention in the studies This is due to the fact that the Saudi Arabian tributary is said to dry up in summer months and Iran has so far not made much use of the waters of the Tigris due to the difficult geographic and climatic conditions of the region. Both rivers merge in their last 190 kilometers, forming the Shatt al-Arab before flowing into the Persian Gulf. The irregularity within the rivers' flow accompanied by an erratic documentation of stream flow data makes it difficult to determine the mean annual discharge of both rivers resulting in a great variation of available data. The roots of the dispute between these countries began after the collapse of the Ottoman Empire and the division of its properties and the establishment of new countries, including Iraq and Turkey. The roots of this dispute grew after the start of establishing of projects on these rivers by Turkey, for establishing new development projects, with weakness of Iraq and Absence of a common strategy that facilitated the completion of these projects which led to a decline in the level of water running within Iraqi territory. Hence, we can produce the main argument of research, the scarcity of water in country like Iraq will lead this state to more tension and conflict with responsible state about this scarcity which is turkey, can this dispute between them lead to war? Or they can address the dispute through satisfactory agreement between them regarding the research issue.

This research divided into three chapter, in the first chapter I will explain the law perspective of the non-navigational basins in general and then the agreement that determined the relation between Iraq and turkey regarding to the water, in second chapter, the dimension of the water disputes for both sides will be analyzed, the third chapter, address the solutions to this disputes and the positivity of this cooperation.

2. Legal Aspects

In all disputes, it is necessary to back to international law as the source that determines the relationship between states and to know the legal and fairness of the demands of each state. The laws that determine the relationship in the subject of the dispute in general, as well as the regional laws and agreements that define the relationship between the two

¹ Mark Adams, *Water and Security Policy: The Case of Turkey*, (Washington, Near East South Asia Center for Strategic Studies, 2002)

² Alex stark, *Water Wars? The Role of Hegemony in the Jordan River, Nile River and Columbia River Basins*. 2011. <https://www.e-ir.info/2011/02/25/do-democratic-states-have-a-negotiating-advantage/>.

Accessed at 18\12\2018

countries. In order to cover the various aspects of the subject of this chapter, it has been divided into two requirements:

- 1) International Rivers under the international law perspective.
- 2) Agreements and treaties governing the Tigris and Euphrates rivers.

1) International Rivers under the international law perspective.

As mentioned before the importance of the knowledge about the laws covering the international rivers let us understand the legal of basin states positions. International law did not care about non-navigational basins before 1911, when it was mentioned for the first time at the Madrid Conference. In order to understand these laws, some terminology must be clarified first:

International river: Rivers that Form a border between two or more countries, for example the Rhine, which is the border between Germany and Switzerland, and Shatt al-Arab, which is part of the border between Iraq and Iran, before it pours into the waters of the Arabian Gulf.

International basins: The area where the international river is located with all branches and its limits are the limits of the flow of water above it towards the river and its branches.

River basin: a geographical area that limits the flow of water over the course of the river and the streams of its branches.³

Transboundary Rivers: the aquifers, and lake and river basins shared by two or more countries – support the lives and livelihoods of vast numbers of people across the world.⁴

1) Madrid Conference:

This conference consider as the first convention for the non-navigational basins. this conference adopted by institute de droit in 1911 recommended forming a common committee to give opinion when works or utilization on a basin in the state to prevent a dangerous and important consequences in lower watercourse state.⁵ The articles of this conference are summarized below:

- a) Where a watercourse forms the boundary of two States, neither of these States may, without the consent of the other, and in the absence of a special and valid legal title, bring or allow to individuals, companies, etc. detrimental changes the shore of the other State. On the other hand, either of the two States may, in its territory, exploit or permit the exploitation of water in a manner that seriously affects its exploitation by the other State or by private individuals, companies, etc.
- b) When a watercourse successively crosses the territories of two or more States:
 - The point at which this river divides the frontiers of two States, either naturally or from time immemorial

³Munther Khaddam, *Arab Water Security: Reality and Challenges*, (Beirut: Center for Arab Unity Studies, 2003).

⁴This definition of Transboundary River regarding to the UN water (Coordinating the UN's work on water and sanitation). <http://www.unwater.org/water-facts/transboundary-waters/>.

⁵Laurence Boisson de chazournes, *Fresh water in international law*, (United Kingdom, Oxford University Press 2013), p: 203.

cannot be changed by the establishments of one of the States without the consent of the other;

- Any harmful alteration of the water, any spill of harmful material (coming from factories, etc.), is forbidden;
- It cannot be taken by the establishments (especially the factories for the exploitation of the hydraulic forces) a quantity of water such as the constitution, in other words the usable character or the essential character of the watercourse on its arrival on the territory of downstream, is seriously modified;
- The right of navigation under a title recognized in international law cannot be violated by any use whatsoever;
- A downstream State cannot make or allow to be carried out in its territory deconstructions or establishments, for the other State, produce the water of flooding.
- The foregoing rules apply equally to the case where a lake situated in one territory of the watercourse flows into the territory of another State or the territories of other States.
- It is advisable to set up Commissions, both local and permanent, of interested States which will take decisions or, at least, give their opinion when new establishments or modifications are made to existing establishments and that this could have some consequence important for the part of the watercourse located on the territory of the other State.⁶

2) Helsinki Rules

The “Helsinki Rules on the Uses of the Waters of International Rivers” (the Helsinki Rules) were issued by the International Law Association (ILA) in its meeting in Helsinki in 1966. Although the title of the Helsinki Rules refers to international rivers only.⁷ But one of the features of Helsinki rules that is emphasis on a set of obligation with respect to public participation⁸ the main objective of this rules is to strengthen national and international actions aiming at the protection and sustainable use of transboundary surface and ground waters and the related marine environment. Prevent, control and reduce the release of hazardous substances into the aquatic environment; and promote public information and public participation in related decision-making processes, projects, programs and policies.⁹ the Helsinki Rules also apply to groundwater connected to surface water. This was the first time that transboundary groundwater was addressed by any international legal instrument.

⁶.institute de droit international, Madrid conference 20 Apr 1911, http://www.idi-iil.org/app/uploads/2017/06/1911_mad_01_fr.pdf. Accessed day 2 Dec 2018.

⁷Bellie sivakumar. “Water crisis: From conflict to cooperation—an overview”, *Hydrological Sciences Journal*56, No: 44 (July2011, P: 541.

www.tandfonline.com/doi/full/10.1080/02626667.2011.580747. Accessed 7Dec2018

⁸Laurence Boisson De Chazournes, p:34

⁹Office of the Co-coordinator of OSCE Economic and Environmental Activities. Organization for Security and Co-operation in Europe. OSCE Training Seminar for Economic and Environmental Officers 16-19 September 2001, Sinaia, Romania. Report. Vienna, 1 October 2001.

The Helsinki Rules established the principle of “reasonable and equitable utilization” of the waters of an international drainage basin among the riparian states as the basic principle of international water law. For that purpose, the Helsinki Rules specified a number of factors for determining the reasonable and equitable share for each basin state. Some relevant factors to be considered are the basin geography; the basin hydrology; the climate affecting the basin; the past and existing utilization of the waters of the basin; the economic and social needs of each basin state; the population dependent on the waters of the basin in each basin state; the availability of other resources; and the degree to which the needs of a basin state may be satisfied, without causing substantial injury to a co-basin state. Despite their relevance and comprehensive nature for international watercourses, the Helsinki Rules have no formal standing or legally binding effect, so to speak.¹⁰ Until the adoption of the UN Watercourses Convention in 1997, the Helsinki Rules remained the single most authoritative and widely-quoted set of rules for regulating the use and protection of international watercourses. The Helsinki Rules were soon accepted by the international community as customary international law and the Rules have also been referred to or adopted by a number of organizations and countries.¹¹

3) UN convention

The work of the UN on the law governing international watercourses began in 1959. In 1991, after extensive study and consideration of numerous reports of the Special Rapporteurs, substantial information provided by Member States. In 1997, after an additional round of interstate negotiations and legal discussions, the UNGA adopted the UNWC (GA Res.51/229). The UNGA comprises all 192 Member States of the United Nations, and serves as the main forum for multilateral negotiations and policy-making within the UN system¹². The Convention sets out the rights and obligations of countries sharing international watercourses. As a global legal umbrella, the Convention seeks to supplement, facilitate, and sustain transboundary water cooperation at all levels, by: Addressing the legal weaknesses in the current international water governance structure, in the absence of other applicable legal instruments; Providing coherent policy guidance for the adoption and implementation of sound and comprehensive watercourse agreements—guidance that will facilitate the work of bilateral and multilateral institutions assisting watercourse states in matters of transboundary water cooperation.¹³ Moreover, the UN Watercourses Convention provides a comprehensive list of applicable principles, such as those related to water sharing, the obligation to cooperate, and the protection of the environment, procedures for

dispute settlement or avoidance, and the involvement of non-State actors, which now constitute the cornerstone of the applicable law on watercourses.¹⁴ Some of the articles of the UN convention:

- The Convention will only apply to contracting parties, not to all riparians to an international watercourse, because the definition of “Watercourse State,” which is applied throughout the Convention’s text to establish various rights and duties, includes only those countries that have ratified or acceded to the Convention.
- The Convention preserves the contractual freedom of watercourse states. In this sense, the Convention does not affect the rights and duties of states that become parties to it arising from existing freshwater-related agreements. The Convention only encourages states to consider harmonizing existing agreements with its basic provisions, as well as to adopt new agreements that apply and adjust the Convention to the characteristics and uses of a particular watercourse.
- The Convention provides guidance in the application of the cornerstone principle of equitable and reasonable use.
- The convention provides a non-exhaustive list of some of the factors that may be relevant in determining what is reasonable and equitable under the circumstances of each case (e.g. the effects of a water use on neighboring states, existing and future uses, watercourse states’ social and economic needs, the watercourse’s natural conditions, climatic and ecological factors, costs of environmental protection measures, etc.).
- The convention requires that states, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse states.
- The convention in one of their article establishes that, in the case of conflicting uses across international borders, watercourse states must give special regard to “vital human needs” in solving such a conflict. That is, special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for the production of food in order to prevent starvation.
- The Convention offers mechanisms for dispute settlement between watercourse States, including negotiation, good offices and mediation, conciliation, joint watercourse institutions or submission of the dispute to arbitration or to the International Court of Justice by adjudication.¹⁵

Syria and Iraq consider the Tigris and Euphrates Rivers as international rivers according to the definition of the United Nations Convention on the International River and demand the fair participation of these rivers between the riparian state while the other side Turkey does not recognize the international character of the Tigris and Euphrates Rivers because Turkey is considered the international river only the river that form borders between two or more states¹⁶ the conclusion of all of the conventions outline in five general

¹⁰Bellie sivakumar.P: 542

¹¹ Charles B Bourne, “The International Law Association’s contribution to International Water Resources Law”, *Nat Resources* j 36, No: 2, (spring 1996), P: 216.

¹² UN watercourses convention, online user guides, FAQs, United Nation Treaty series, Accessed on 6/12/2018. <http://www.unwatercoursesconvention.org/faqs/>.

¹³ Flavia Loures, Dr. Alistair Rieu-Clarke, Marie-Laure Vercambre, *Everything you need to know about the UN Watercourses Convention*. www.wwf.org.uk/downloads/un_watercourses. Accessed: 8 December 2018.

¹⁴ Laurence Boisson De Chazournes, p: 26.

¹⁵ UN Watercourses Convention.

¹⁶ Aysagul Kibaroglu, Adele Kirschner, Sigrid Migreng, and Rudiger Wolfrum (eds), *Water Law and Cooperation in the Euphrates-Tigris Region: A Comparative and Interdisciplinary Approach*, (Netherlands, koninklijke brill NV, 2013), P: 67.

principle (No harm Principle, the principle of reasonable and equitable utilization, good neighborly relations, Cooperation between riparian states in relation to water, Optimal use to achieve sustainable development).¹⁷

Agreements and treaties covering Tigris –Euphrates Basin.

4) Franco-British treaty:

This treaty holds in 1920 between France and Britain this treaty considered the first modern international agreement related to the use of water in Mesopotamia where the signatory powers agreed to establish a committee to examine and coordinate water utilization of the Euphrates and Tigris.¹⁸

5) Treaty of Lausanne:

The treaty was held in Switzerland between the European powers and the Turkish government on July 24, 1923,¹⁹ which dealt with the issue of water in one of its clauses: "In default of any provisions to the contrary, when as the result of the fixing of a new frontier the hydraulic system (canalization, inundation, irrigation, drainage or similar matters) in a State is dependent on works executed within the territory of another State, or when use is made on the territory of a State, in virtue of pre-war usage, of water or hydraulic power, the source of which is on the territory of another State, an agreement shall be made between the States concerned to safeguard the interests and rights acquired by each of them. Failing an agreement, the matter shall be regulated by arbitration."²⁰

a) Treaty of friendship and neighborly relations:

The friendship treaty signed in 1946 between King Faisal king of Iraq and Ismet Innu president of Turkish republic to reinforce the bond of friendship and brotherhood which have existed for centuries between people of the countries, and entered into force in 1948 this treaty consist of six protocols the first protocols relative to the Regulation of the Waters of the Tigris and Euphrates and of their Tributaries.²¹ Both countries have agreed as follow:

- Iraq may, as soon as possible, send to Turkey groups of technical experts in its service to make investigations and surveys, collect hydraulic, geological and other information needed for the selection of sites for the construction of dams, observation stations and other works to be constructed on the Tigris, the Euphrates and their tributaries, and prepare the necessary plans to this end.

- The above-mentioned technical experts shall collaborate in their work with Turkish technical experts, and Turkey shall authorize them to proceed to the places to be visited and shall provide them with the information, assistance and facilities necessary for the accomplishment of their task.
- Turkey shall install permanent observation stations and shall ensure their operation and maintenance. The cost of operation of these stations shall be defrayed in equal parts by Iraq and Turkey, as from the date of entry into force of the present Protocol.
- The Turkish Government accepts in principle the construction, in conformity with the agreement mentioned in the next paragraph, of any works which may be found necessary as a result of the studies provided for in article 1.
- Turkey shall keep Iraq informed of her plans for the construction of conservation works on either of the two rivers or their tributaries, in order that these works may as far as possible, be adapted, by common agreement, to the interests of both Iraq and Turkey.
- Each of the High Contracting Parties shall appoint a representative as soon as possible after the signature of the present Protocol.²²

We observe that the lack of treaties and agreements between the two countries is one of the main reasons for the emergence of disputes between them and also Turkey is requires in the holding of any agreement that should look to the two rivers as one river and it will establish conditions of equitable use and regulate the rules accordingly.

Chapter Two: The dimension of the water disputes:

The Iraqi-Turkish water relationship was calm until 1980 when the GAP project was started. The Southeastern Anatolia Project (GAP) (Güneydoğu Anadolu Projesi), GAP is the largest scale and costliest project in the history of the Republic of Turkey it was planned to launch 22 dams, 19 hydraulic power plants and irrigation investments covering 1.8 million hectares of land in the Euphrates-Tigris Basin. The total installed capacity of hydraulic power plants would be 7476 MW with annual energy production of 27 billion kilowatt-hours. By 2018, fifteen out of the twenty-two dams have been constructed. One of the dams currently completed is the Ilisu Dam, this dam is thought to produce about two percent of Turkey's energy needs, through which the government of Turkey hopes to reduce Turkey's energy dependency. Each of these countries has its dimensions in these disputes to understand these dimensions. This chapter will consist of two requirements:

- 1) Political Dimension.
- 2) Economic Dimension.

1) Political Dimension

A. Turkey political dimension:

²² UNITED NATIONS, Treaty Series, Treaties and international agreements registered or filed and recorded with the Secretariat of the United Nations VOLUME 37
<https://treaties.un.org/doc/Publication/UNTS/Volume%2037/v37.pdf>.

Accessed in 10\12\2018

¹⁷ Marwa Daoudy, "Hydro-hegemony and international water law: laying claims to water rights", official journal of the word water Council 10, no: S2 (November 2008), P: 92.

¹⁸ M. El-Fadel, Y. El Sayegh, A. Abou Ibrahim, D. Jamali, and K. El-Fadl, "The Euphrates-Tigris Basin: A Case Study In Surface Water Conflict Resolution", j. Nat. Resour. Life Sci. Educ 31, (2002), P: 3

¹⁹ Van M.vander lipa, "the treaty of Lausanne: the American public and official debate on Turkish-American Relation", Vol: XXIII, (1993). p:44&47

²⁰ Treaty of Peace with Turkey Signed at Lausanne, July 24, 1923, Article 109.

²¹ Armin von Bogdandy, h.c. Rüdiger Wolfrum, *Treaty of friendship and neighborly relations*, Heidelberg, Max Planck Compilation of International Treaties and Other Documents Relative to the Euphrates and Tigris, 2012.

1. Kurds: Turkey is trying to use water as a pressure on Iraq because of the presence of elements of the PKK within the Iraqi borders in the northern region of Iraq, which is known as the Kurdistan region. As they used this paper with Syria during the establishment of the GAP project where Syria was supporting the PKK Turkey has announced that it would allow a water flow of 500 cubic meters per second if Turkey stops supporting the PKK²³. The physical presence of the dams and reservoirs coupled with military protection divides the northern and southern Kurdish population and counters the PKK's movement over the frontier²⁴. On the other hand, Turkey is trying to win the satisfaction of the Kurdish nationalism, which constitutes the vast majority in the region where the Tigris and the Euphrates are located by increasing the economic prosperity and development of those areas and operating the largest number of people in these projects.²⁵ GAP is frequently criticized as an underhanded mechanism to forcefully assimilate the Kurds into Turkish society. A study conducted by the Swiss Federal Institute of Technology reported that within the last 25 years of the implementation of GAP, Turkey's hydraulic policies have resulted in both ecological and social destruction, including sedimentation, salinization, decreased water quality, population displacement and archeological site destruction. The World Commission on Dams also noted the underhanded intentions driving large dam construction: "While dams have delivered many benefits and made a significant contribution to human development, in too many cases the price paid to secure those benefits, especially in social and environmental terms, has been too high and, more importantly, could have been avoided." When applied to the Turkey's Atatürk Dam, over 300 villages were flooded, between 150,000 and 200,000 people (majority Kurdish), were displaced without the implementation of relocation plans, and approximately 80% of the displaced population did not receive compensation from Turkey's General Directorate of State Hydraulic Works (DSI). Based upon this administrative maneuver it is evident that the implementation of GAP has served a duplicitous purpose in moving the Kurds off their land into cities where they would be compelled to absorb into Turkish society.²⁶

2. Regional Hegemony: Turkey since the Atatürk era and it shows its desire to be a strong influence in the Middle East and then several centuries continued in this policy, but in recent years Turkey has become more connected and a desire to establish its regional role within this region.²⁷ Turkey, through its water resources, try to achieve

her strategic ambitions as a regional "breadbasket"²⁸ and seeks to find a regional role and a head in the region with external inspiration and encouragement from The United States, in particular, and the Western countries in general, believe that Turkey can support its regional orientation through the water paper and thus play a key role in Middle East region. And try to weaken the downstream state.²⁹ The Turkish water policy in the Tigris and Euphrates Rivers has received international and regional support and support. This can be inferred from the substantial financial support provided to the GAP project by the United States, Canada, Japan, France and Japan, where financial contributions (\$ 2,500 million).³⁰ Turkey with the completion of GAP threatening to reduce the ET Basin discharge to Iraq, to continue agricultural and water dependency to escalate the asymmetry of power dynamics³¹

B. Iraq Political Dimension:

1) Kurds: The good relationship between Turkey and the Kurds of Iraq (the Kurdistan region of Iraq) raises fears of the Iraqi government, Turkey's economic support, especially in the export of oil to the Kurdistan region will lead to more autonomy for the region.³² The geographic location of Kurdistan in the Tigris River's main branches is strategically crucial to Iraq's water resources. Regardless of the specific route of the border, the administrative model, the degree of sovereignty or political leadership, the Kurds by geography, will always control the Tigris water resources in Iraq. In theory, the Kurds are in a position to exploit the flow of water and use it as a political leverage against the central government. Even if the Kurdish maneuver room tends to exaggerate the current debate, this hydrological reality has always troubled Iraqi governments and played a role in the brutal and brutal marginalization of Kurds under Saddam Hussein.³³ The Kurdish areas in the north control a major part of the flow of the Tigris River, as well as major dams. Expanding irrigation and agriculture in northern Iraq, or the building of new dams, will further complicate the already tenuous water situation in the south.³⁴

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²⁸Marwa Daoudy, "Asymmetric Power: Negotiating Water in the Euphrates and Tigris (2008)" *International Negotiation* 14 (2009). P: 374.

http://graduateinstitute.ch/files/live/sites/iheid/files/sites/study/summer/IA2009_readings/MD3.pdf.

²⁹Mark Zeitoun and Jeroen Warner, "hydro-hegemony: a frame work for analysis of transboundary water Conflicts", *water policy* 8, (2005), P:452.

³⁰Jack V. Kalpakian, *Identity, Conflict AND Cooperation In International River Basins*, (London, Rutledge, 2000).

³¹Samantha Glass, P: 22.

³²Mark Dohrmann and Robert Hatem, "The Impact of Hydro-Politics on the Relations of Turkey, Iraq, and Syria", *Middle East Journal* 68, No. 4 (Autumn 2014).

³³Tobias von Lossow, *More than infrastructures: water challenges in Iraq*, *clingendael policy brief*, (2018), p: 5

https://www.clingendael.org/sites/default/files/2018-07/PB_PSI_water_challenges_Iraq.pdf.

³⁴Fredrick Lorenz, "Strategic Water for Iraq: The Need for Planning and Action", *American university international law review*, 24. Article 4. P: 290

<https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?refer>

²³Tzchak E. Kornfeld, *Trouble in Mesopotamia: Can America Deter a Water War Between Iraq, Syria, and Turkey?* *Environmental law reporter* 34, No: 10362(2004), P: 1636.

²⁴Samantha Glass, "Twisting the Tap: Water Scarcity and Conflict in the Euphrates-Tigris River Basin", *Independent Study Project (ISP) Collection*, 2594, (2017). P: 29 https://digitalcollections.sit.edu/isp_collection/2594.

²⁵Deane C. McKinney. *Transboundary Water Challenges: Case Studies*, (University of Texas at Austin, 2011), P: 91.

²⁶Samantha Glass.p:27

²⁷Larrabee, F. Stephen, and Ian O. Lesser. *Turkish Foreign Policy in an Age of Uncertainty*, RAND Corporation, the, 2003. ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/ikbu-ebooks/detail.action?docID=202778>.

2) Internal instability: That the lack of water supply to Iraq would create a state of social instability and therefore political and security. The lack of access to adequate water for Iraqi citizens, especially for agricultural purposes will have repercussions and perhaps the most serious abandonment of villages and rural and to go to the city that will cause of the housing crisis in the capital and other Iraqi cities Housing will be built within the framework of the so-called "slums", which the experience of other countries that have suffered from this phenomenon has proven to be one of the most dangerous environments in generating resentments and social and security tensions because of their adverse socio-economic and cultural conditions Of a human.

2) Economic Dimension:

a) Turkish economic dimension:

1) Oil: Turkey announced plans to sell Iraq water. In addition to electricity transmissions and diesel oil sales, it was agreed that Turkey's State Hydraulic Works (DSI) would both transport water from a purification facility in the southeastern Sanliurfa province to Iraq and support Iraq's agricultural irrigation efforts. While hydroelectric power generation in Iraq has also been greatly limited due to low river levels.³⁵ Turkey is planning to use water. This was very clear when president of Turkey in 1992 declared at Ataturk dam opening ceremony that "neither Syria nor Iraq can lay claim to Turkey's rivers any more than Ankara could claim their oil... The water resources are Turkey's, the oil resources are theirs. We don't say we share their oil resources, and they can't say they share our water resources".³⁶ Turkey in 2004 provided Iraq's newly reformed Ministry of Water Resources with water flow data, "This was significant because the parties had long treated flow data as a national security secret."³⁷ Regardless of their high stakes, the lower riparian's do not have strong negotiation position vis-à-vis Turkey. Baghdad depends heavily on Ankara's benevolence, as Iraq's largest crude oil pipeline, the Kirkuk-Ceyhan, traverses Turkey to reach the Mediterranean. In 1990, around the same time as the 30-day halt of the Euphrates water, Turkey also closed the oil pipeline in compliance with the UN embargo resolutions following Iraq's invasion of Kuwait.⁶⁵ Subsequently, Iraq is historically distrustful towards Turkey due to Ankara's ability to turn the tap controlling water and oil whenever it favors Turkish economic and political interests.³⁸ Turkey repeatedly compares its water rights to the Arab oil rights Turkey's Minister of State, Kamran Inan, claims that Turkey possesses the same right to the waters of the

Euphrates and the Tigris as the Arabs do their oil.³⁹ "From the moment that Saudi Arabia stopped giving away its oil; Turkey could no longer regard its water as a present to be given away for free. The Turks do not claim Arab oil but they (the Arabs) claim our water. The Euphrates truly is a Turkish asset."

2) Electric produce: Turkey uses hydropower relatively more than Syria and followed by Iraq. Due to the fact that Turkey is not an oil producing country, it does not like to rely on importing oil as an energy source. Turkey wishes to reduce its dependency on imports of expensive oil by producing at least 40% of its required energy from national hydroelectric resources. GAP project is one of these sources where it is anticipated that it will reduce importing 28 million tons of oil.⁴⁰ On the other hand, Iraq is oil exporter since early 20th century while Turkey imports about 63% of its fuel. Despite the continuous declarations from the Turkish Government that GAP is purely a development project, it seems that there are number of internal and external goals involved as well.⁴¹

3) Agricultural: The advantageous geographical position of the Southeast Anatolia makes the region ideal for the exportation of agricultural produce to both the Middle East and Europe. The share of exports from the GAP region has risen from \$3.3 billion in 2007 to \$8.8 billion in 2015, and while the country's exports have increased roughly 34%, the exports specifically from the Southeast Anatolia have surged by 168%. The GAP irrigation projects have enabled Turkey to boost its leverage over the lower riparian. Aside from the international trade benefits, GAP's increased agricultural production may also be expected to stimulate a ripple effect on the Southeast Anatolian economy.⁴²

b) Iraq economic dimension

With exploding population growth as well as almost 35 straight years of war and civil strife, Iraq is concerned that GAP will decrease water supplies at a time when its population is increasingly dependent on river water.⁴³ The Euphrates will lose 70% of its water at the conclusion of the GAP project. The country could also fall below the water poverty line, which has been defined as less than 1000 m³ per year per person.⁴⁴ Currently, it is estimated that two million Iraqis face drinking water shortages And also Iraq dealing with food insecurity The agriculture sector will suffer, leading to food security issues, unproductivity, and increased food-related imports that will keep Iraq dependent on foreign goods due to drought conditions and war. In some areas the water is so heavily salinized that it can no longer be used for agricultural purposes. Decreasing amounts of water often means failing supply for the widely spread-out irrigation systems. As a consequence, agricultural activities and food production have been declining over the last

er=<https://www.google.com/&httpsredir=1&article=1088&context=auilr>.

³⁵Mark Dohrmann and Robert Hatem,

³⁶Nadhir AL Ansari, "Hydro-Politics of the Tigris and Euphrates Basins", *Engineering* 8, (2016) P:147

https://www.researchgate.net/publication/299467904_Hydro-Politics_of_the_Tigris_and_Euphrates_Basins. Accessed Dec 16 2018.

³⁷Camilla E. Wasinger, *Peace Be Dammed? Water Power and Water Politics in the Tigris-Euphrates Basin*, (Honors paper, Bowdoin college, 2015), P: 55

³⁸Samantha Glass, P:22

³⁹M. El-Fadel, Y. El Sayegh, A. Abou Ibrahim, D. Jamali, and K. El-Fadl. p:6

⁴⁰Nader AL Ansari, P: 147

⁴¹Jack V. Kalpakian, p: 166-177

⁴²Samantha Glass, P: 25.

⁴³Mark Dohrmann and Robert Hatem. pp. 567-583.

⁴⁴Sameh W.Al -Muqdad, MuhammadF.Omer, Ruby Abo, and Alice.Naghshineh, "Dispute over Water Resource Management— Iraq and Turkey", *Journal of Environmental Protection* 7, (2016), P: 1099.

decade, particularly in the provinces of Basra, Dhi Qar and Maysan. This increases emigration from the region – approximately 90% of the population has left the area in the last few decades– leaving only about 20, 000 people, mainly farmers, in the region, which has led to a further decline in food production.⁴⁵ Ensuing environmental crises and the resulting need for landscape rehabilitation will cost the government billions of dollars, which will further burden the national economy. These concerns continue to exist in Iraq today. Water scarcity, food insecurity, Health concerns, and Environmental costs. In 2013, Iraq imported 25% of Turkey’s agricultural exports⁴⁶. Food and water security are intrinsically linked. Pollution and salinity levels will rise. Gulf waters with high salinity levels will occupy and ruin the waters of Basra, causing a gradual increase in the deaths of various species, including fishes whose populations have already decline d by 50% since the 1990s.⁴⁷ These concerns continue to exist in Iraq today, Water scarcity, food insecurity, health concerns and environmental cost.⁴⁸

3. The cooperation between Iraq and turkey

Two neighboring countries such as Iraq and Turkey with common interests and mutual relations, problem, such as the problem of water can stand a barrier between the continuation of these relations and lack of access to the common prospects and the dimensions and for cooperative between these countries and to reach solution of this problem in this chapter will consist two requirements:

- 1) Options of cooperation between Iraq and Turkey.
- 2) Positivity of Cooperation between Iraq and Turkey.

1) Options of cooperation between Iraq and Turkey:

a) Defining institutional and technical needs for cooperation:⁴⁹ A committee composed of experts from within and outside the riparian state should be established to advise the responsible authorities and humanitarian agencies on what should be done in some issues related to the problem, such as water supply, sanitation failures or sudden releases of water from dams. In reaching an acceptable level among all parties, a more formal committee could be established, which would also include a group of experts, researchers and decision makers with a formal mandate to build trust among the basin countries that would lead to increased administrative capacity of the participating countries. This committee is responsible for establishing a database of all current water disputes and all available information on hydrology in all countries and identifies the water needs of all riparian countries and identifies the neediest countries to improve the efficiency.⁵⁰ And also Cooperation with other countries, organizations and companies in developed countries to help in giving

advice for successful patterns of water management to get benefit from their experiences.⁵¹

- b) Coordinate their efforts to reach reasonable agreements with riparian countries on water quotas:⁵² hold a serious meeting between the basin countries, and they reach through this meeting to a formal agreement that would sustainably regulate key issues such as filling reservoirs, operating dams or river water flow during droughts. This agreement should focus on the roles, shared responsibilities and specific processes of eliminating tensions and conflicts rather than agreeing on water sharing.⁵³ They should also take the view of organization and international institutions such as UN organizations (e.g. UNEP, UNDP, UNESCO etc.) and (FAO, WMO etc.) to take advantage of their experiences in this issue.⁵⁴
- c) Expand economic interdependence between the two countries, which could involve the export of oil and gas supplies from Iraq in return for hydroelectric power from Turkey and Promoting regional cross-investment in the GAP, helping to alleviate the concerns of stakeholders in Syria and Iraq.⁵⁵
- d) Turkey's desire to join the European Union drives it to implement the European Union's water framework (WFD). While the WFD presents member states with a wide variety of responsibilities and initiatives ranging from reducing pollution in urban waste water to implementing accurate water pricing, at the heart of the WFD is the requirement of water management on the scale of entire river basins, rather than individual states. In other words, full implementation of the EU WFD mandates, “the integration of industrial, agricultural, rural development, nature conservation and forestry programs at the river basin scale and, in many cases, transboundary collaboration In the case of water bodies “that extend beyond the territory of the EU, the WFD obliges Member states to endeavor to establish appropriate coordination with non-member states with a view to achieving the objectives of the Directive.⁵⁶
- e) Building an early-warning system for the prediction of severe climate incidents in the Euphrates basin, to enable preparation against famine and flooding.⁵⁷
- f) Iraq faced a domestic challenge they must to fix it :⁵⁸
 - Damaged, dilapidated and vulnerable water installations: The condition of Iraq’s water facilities has been constantly worsening over the last decades due to poor maintenance, poor water management and the impact of several conflicts and wars, as for instance the Iran-Iraq war or the two US interventions. A decade ago the country’s water infrastructure ranked among the poorest worldwide; it further deteriorated with IS capturing and controlling water facilities, inadequately handling installations, and weaponing water for strategic political and tactical military purposes. Since the security situation remains fragile in

⁴⁵ Tobias von Lossow, p:6

⁴⁶ Glass, Samantha, P: 22.

⁴⁷ Sameh W.Al -Muqdad, Muhammad F.Omer, Ruby Abo, and Alice.Naghshineh,

⁴⁸ Mark Dohrmann and Robert Hatem,

⁴⁹ Nadhir Al-Ansari, P: 164.

⁵⁰ M. Nouar Shamout and Glada Lahn, *The Euphrates in Crisis Channels of Cooperation for a Threatened River* (research Paper, Chatham House, 2015), P: 32.

⁵¹ Nadhir Al-Ansari, P: 164.

⁵² Nadhir Al-Ansari, P: 164.

⁵³ M. Nouar Shamout with Glada Lahn Energy, P:32

⁵⁴ Nadhir Al-Ansari, P:164

⁵⁵ M. Nouar Shamout with Glada Lahn Energy, P:33

⁵⁶ Camille E. Wasinger, P:84-85.

⁵⁷ M. Nouar Shamout with Glada Lahn Energy, P:33

⁵⁸ von Lossow, Tobias, p:5-6

various parts Iraq, and given the complex political setting, the risk remains high that water will continue to be instrumentalised for political or military purposes, for instance by favoring certain users over others.⁵⁹

- Hydro-political tensions with Kurdistan: The central government in Iraq must reach a solution with the Kurdistan Regional Government on the issue of water, Iraq in addition to the water disputes between Iraq, Turkey, and Syria is also facing a dispute between Iraq and Iraq, where the upstream branches of the Tigris lies in the Kurdistan region and the policy of the region in the use of water has repercussions on the quantity and water quality in the lower branches of the Tigris and Euphrates rivers.⁶⁰
- Environmental tragedy and agricultural decline.⁶¹

2) Positivity for cooperation between Iraq and Turkey:

- Kurdish Question: Since Iraq and Turkey are suffering from the Kurdish issue on the one hand, as well as the Iraqi Kurdish cooperating with Turkish government and the PKK troops exists within Iraqi border so solving the water problem can lead them to solve the Kurdish problem by reaching a mutually acceptable solution.
- Economic Cooperation: It is known that the economic relationship after 2003 between Iraq and Turkey has expanded very significantly. Iraq depends heavily on Turkish exports in its domestic consumption and depends on Turkey in exporting its oil. This means that Turkey is benefiting greatly from its economic relationship with Iraq. Problem like water problem Lead to a halt in this economic cooperation so solving of this problem leads to keep this economic relations and maybe expand it.
- Poverty Reduction: Because development based on water stimulates economic, environmental and social changes, it helps to achieve agricultural development and thus rural development, which helps to resettle in agricultural areas, which will lead to re-agriculture and thus reduce poverty and preserve the environment.
- Also, by solving the water problem, Turkey will give Iraq a chance to devote itself to solving its internal problems.
- Since it is a water problem in consists a third party which is Syria, solving this problem is a regional solution and will remove the tension from the regional map.
- Strengthening the relationship between Iraq and Syria because Syria is a middle basin on Euphrates.

4. Conclusion

Water is one of the most important resources that every country needs in various aspects of life, such as agriculture, industry, etc. The disputes over water between countries have become one of the features of the twenty-first century. There are more than 261 water basins in the world between two countries and more. Turkey and Iraq shared in two basins, the Tigris and the Euphrates, Turkey is the upstream state of these two rivers. Iraq is considered the downstream state. The water relationship between these two countries

began with tension after the collapse of the Ottoman Empire and the formation of the new states by Britain and France. Turkey and Iraq were formed. The two rivers were divided between the states, This dispute began to increase after Turkey's approval of the Gab project in the sixties of the last century and in 1980 Turkey began to implement this project and Turkish water policy led in the implementation of this project to inability to find solution for this dispute, which continues to this day, where Turkey look to these rivers as One river treats these two rivers as transboundary rivers instead of an international river. It considers the international river which is formed border between two states. Iraq regards these two rivers as an international river. the notable lack of agreements on water between the two countries leads to the inability to find solution for this dispute and each of these two countries have a political and economic dimensions of this dispute, Turkey is trying through the water pressure on the basin countries, first, the Kurdish issue because of the presence of elements of the forces of PKK within the Iraqi border is using this paper as a threat and pressure on Iraq On the other hand, the area of Gap consider as an area of the Kurdish Turk majority inside Turkey, Turkey is trying to win the satisfaction of the Kurdish people by providing employment opportunities within this project as well as reviving their areas in terms of agriculture. Turkey is also trying through this project to reach a stage of regional hegemony of the region. For the economic dimension Turkey is trying to use the water as an exchange with Iraqi oil, as well as this project returned to Turkey with great economic benefits such as electricity generation and the rise of agriculture."GAP is estimated to contribute \$6.6 billion annually to Turkey's economy. The project's macro targets for 2018 include: reduction of the unemployment rate to 10.3%, increase of the employment rate to 35.3%, increase of the labor force participation rate to 39.1%, increase of the regional export value to \$22.12 billion, an increase of the ratio of gross value added per capita by GAP to Turkey's average to 54.4%. By targeting one of the most economically underdeveloped areas in the country where the Kurds represent 90% of the regional ethnic identity, the government claims that this multi-sector approach will bear immense economic and social fruit".⁶² As for Iraq, the political dimensions of Iraq is also the Kurdish issue, the Kurds in Iraq have autonomy, which called Kurdistan region of Iraq, where the Euphrates River passes through the territory before reaching the areas under the control of the Iraqi government, this region and the Turkish government have strong relations with KRG (Kurdistan region Government, if Turkey continued to support the region economically and politically could lead to separatism, then the Euphrates will be controlled by another country before reaching the Iraq The second dimension of Iraq is fear of internal instability because the situation of water scarcity within the state and the inability of the government to provide this right will lead to the people's rebellion against the government and thus instability within the state. for the economic dimension Iraq is facing a severe water scarcity with a large population increase as well as conditions of climate change and salinity in the rivers have almost eliminated agriculture. Iraq is genuinely suffering from Turkey's water policy, but despite the disputes between

⁵⁹ von Lossow, Tobias, P: 5-6

⁶⁰ von Lossow, Tobias, P: 5-6

⁶¹ von Lossow, Tobias, P: 5-6

⁶² Samantha Glass, P: 22.

them, the possibilities of win-win remains, it's just need to establish a healthy environment for negotiations between them, the possibility of turning this dispute into a war between the two countries is very weak because the two countries like Turkey and Iraq are cooperating on many issues and also have strong economic relations Iraq is one of the large markets for Turkish products, and Iraq depend on turkey in its oil export and also over the years the water disputes didn't turn to war and also there are a group of expert "led by Shlomi Dinar, Aaron Wolf and others, counters that in fact there has never been a historical incidence of a "water war." Using an exhaustive dataset of 261 international river basins, Wolf concludes that "only seven minor skirmishes are found in this century; no war has ever been fought over water. There have been perhaps countless incidences of water-related violence at the sub-national level, but this finding suggests that in fact "geographic scale and intensity of conflict are inversely related. Similarly, Dinar contends that "the existence of hundreds of treaties signed among nations over water for non-navigational uses is evidence that countries pursue cooperation over shared water resources and that the pessimistic outlook on international freshwater is not entirely justified". Furthermore, he argues that conflicts over Transboundary Rivers may in fact "eventually lead to joint exploitation of the resources and a network of common interests. Similarly, resource scarcity based on environmental degradation tends to encourage joint efforts to halt the degradation" Wolf gives three reasons that water wars have not occurred. First, in terms of strategy, it would be almost impossible to launch a war that actually guaranteed the aggressor access to the river water itself. The basin's hegemon, which would have to be the downstream state (since the upstream state has no need to fight for its allocation) would have to effectively invade and occupy its upstream, weaker neighbor, an essentially impossible task. Second, he argues that riparians have shared interests so that there are far greater benefits to cooperating with other riparians. Comprehensive river development can benefit all riparians, and usually involves cooperation. Third, Wolf finds that "once cooperative water regimes are established through treaty, they turn out to be tremendously resilient over time, even between hostile riparians, and even as conflict is waged over other issues".⁶³ He also advances a fourth argument, that there is no economic benefit to going to war because processes like desalination would be relatively cheaper, but notes that it is difficult to prove conclusively. Also turkey postpone her work of filing Ilisu dam from march to June 2018 and postponed again to give Iraq chance to take its process both countries agreed to using methods supposedly guaranties to adequate water supplies to Iraq. This position helped to overcome a hydrological dispute.

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