

# **The Use of the Diyala River Between Iran and Iraqi: An International Law Approach**

**استعمال نهر دىالى بين ايران والعراق:  
من منظور القانون الدولي**

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### *Abstract*

*Over the years, Iran started to construct a number of projects on the international rivers shared with Iraq, including Diyala River, a tributary of the Tigris River without any considerations to the rights and interests of Iraq as a downstream country. Iran has used the waters of Diyala River by constructing many projects which in turn has greatly affected the amount of water entering into Iraq. Also, the quality of water entering Iraq has deteriorated due to the construction of these projects. As a result of water shortage caused by the construction of these projects, the agricultural and industrial sectors have suffered the most in Diyala Province. This paper aims to examine the utilization of water resource, especially Diyala River between Iran and Iraq from an international law perspective. The methodology adopted in this paper is a legal library based research focusing mainly on primary and secondary legal sources.*

*The paper concludes that Iran has violated the principles of international law, such as the equitable and reasonable utilization and participation, international cooperation, etc. Finally, the paper recommends that Iraq has to work on a permanent basis with Iran in order to organize the management of Diyala River, which is the tributary of the Tigris River in line with the principles of international law such as the Convention on the Law of the Non-navigational Uses of International Watercourses 1997.*

## **Chapter One**

### **Introduction**

*Iraq is considered as one of the countries that suffer from lack of control over the headwaters flowing into the country<sup>(1)</sup>. Most of the surface water resources represented by the rivers originate from the neighboring countries whether Turkey or Iran<sup>(2)</sup>. This makes Iraq exposed to pressure and to a water crisis because of the control that the upstream countries have on these water resources. The upstream countries such as Iran started to control and exploit the water resources by constructing projects on these rivers without taking into account the rest of the riparian states that share the course of the international river<sup>(3)</sup>. This has caused negative effects on the downstream countries like Iraq. The most prominent rivers between Iran and Iraq is the Diyala River, which is one of the major rivers feeding the Tigris. The Iranian government and since the middle of last century started planning and implementing many projects in form of dams, reservoirs and canals to divert the course of the river on the basin of the Diyala River without consulting or notifying Iraq, the downstream country and the partner in the course of the river<sup>(4)</sup>. This negatively affected the Diyala Province in terms of lack of water or shortage of water in the course of the Diyala River. As a result of lack of water flowing into the Diyala River, this has tremendously affected the agricultural sector in the Diyala Province.*

## **Chapter Two**

### **Upstream And Downstream Of The Diyala River**

*The Diyala River stems from the Iranian and Iraqi highlands, which rise to a distance of more than 2000 meters and consists of two main tributaries and some other secondary ones<sup>(5)</sup>. The first main tributary is Sirwan tributary which is the main tributary of the Diyala River and it stems from the west Iranian highlands from Kermanshah and Ardalan, the border regions of Iraq<sup>(6)</sup>. This tributary enters into the Iraqi border, south of the city of Halabja in Sulaimaniyah*

Province<sup>(7)</sup>. The second main tributary of the Diyala River is Tangro tributary which stems from the Iraqi highlands in the province of Sulaimaniyah<sup>(8)</sup>. These two main tributaries meet together inside Iraq to form the main course of the Diyala River at Lake of Derbandikhan<sup>(9)</sup>. The other tributaries are Zemkan, Abbasan, and Kara Tu<sup>(10)</sup>. As for Al-Wand River, which is one of the major tributaries of the Diyala River, it stems from Dalaho Mountain within Zagros Mountain chain in Iran and enters Iraq at Khanaqin City in the Diyala Province to divide it into two parts to finally pour into the Diyala River<sup>(11)</sup>. Al-Wand River is of a length of about 50 km<sup>(12)</sup> inside Iraqi border, and it irrigates approximately 12,500 hectares of the farmland and orchards in Diyala<sup>(13)</sup>. In addition, there are some other valleys most of them stem from inside the Iranian highlands and pour into the Diyala River inside Iraq. The total length of the Diyala River is 386 kilometers<sup>(14)</sup> of which about 300 km<sup>(15)</sup> is within the borders of the Diyala Province and pours into the Tigris River, about 32 kilometers south of Baghdad<sup>(16)</sup>. The basin area of the Diyala River is approximately 31,896 kilometers square<sup>(17)</sup> of which 24,072 kilometers square is inside the Iraqi territory<sup>(18)</sup>, and the average of water income in a year is approximately 5.8 billion cubic meters of water, before Iran's construction of the projects on this river<sup>(19)</sup>.

From the above, it would suffice to note that Iran is considered as an upstream country as far as the geographical location of the Diyala River is concerned. On the other hand, Iraq is considered as a downstream country. Hence, both countries have to adhere to the principles of international law when it comes to the utilization of the waters from the Diyala River.

## Chapter Three

### *Diyala River: An International Law Perspective*

*Before tackling the issue of Diyala River from an international law perspective, it is important to note that there are up to 214 watercourses in the world shared by two or more countries<sup>(20)</sup>. And with the economic, political, cultural, agricultural, environmental, demographic, and social changes taking place in the world, this has led to pressure on the freshwater resources. Besides, the imbalance in the division, use and management of freshwater shared by two or more countries, led to several disagreements to the extent of having, in some cases, clashes and conflicts between the countries sharing a watercourse. In the light of all this, the international community paid attention to finding solutions to manage, share, preserve and protect the use of the shared common international watercourse to resolve disagreements about the use and exploitation of the watercourse, in addition to showing the right of the riparian countries to dispose the international watercourse which is under its sovereignty. Therefore, the international community started to hold international conventions and to legislate legal rules related to international rivers. The most important of the agreements and treaties on watercourses are Barcelona Convention 1921 and Helsinki Rules 1966 which defines ‘an international drainage basin’ in Article 2 as “a geographical area extending over two or more States determined by the watershed limits of the system of water, including surface and underground waters, flowing into a common terminus”<sup>(21)</sup>. Also, the United Nations Convention known as the Convention on the Law of the Non-navigational Uses of International Watercourses 1997 (referred to as UN convention 1997) defined some key terms such as watercourse, international watercourse and watercourse state in Article 2(a, b and c)<sup>(22)</sup>. For example, Article 2(a) defines a watercourse as “a system of surface waters and ground water, constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus.” Article 2(b) defines the international watercourse as “a watercourse, parts of which are situated in different states”.*

*Article 2(c) defines a watercourse state as “a State Party to the present Convention in whose territory part of an international watercourse is situated, or a Party that is a regional economic integration organization, in the territory of one or more of whose Member States part of an international watercourse is situated”.*

*A look at the definitions of the “international watercourse”, in the international conventions such as Helsinki Rules 1966 and UN convention 1997 mentioned above, it becomes clear that Diyala River is one of the international rivers shared by two countries, namely Iran, the upstream country, and Iraq, the downstream country. Consequently, Diyala River is a subject to the principles and rules of the international law on international rivers in order to ensure the management and proper use of the international watercourse in an equitable and reasonable way without causing any damage to the rest of the countries sharing it. One of the most important international principles is that stated in Article 5 of the UN convention 1997 about the Equitable and reasonable utilization and participation. Article 5 states the basic rights and duties of each of the international watercourse countries with regard to utilization of the non-navigational international watercourses<sup>(23)</sup>. Beside, Article 6 of the Convention determines the factors relevant to equitable and reasonable utilization of an international watercourse within the meaning of Article 5. Therefore, the intention and purpose of using the international watercourse should be for the benefit of all Watercourse States so that they can meet their own water needs. Perhaps in the context of this paper, it is vital to note that 75% of the area of the Basin of Diyala River is located inside Iraq<sup>(24)</sup>. Iraq was the first to use and benefit from the waters of Diyala River across the kingdom based on the civilization of Ashnona thousands of years ago as well as historical evidence<sup>(25)</sup>. Moreover, Diyala Province highly relies on this river as a primary source of water used for drinking, agriculture, industry etc. Besides, any reduction of water level in Diyala River by the upstream country, Iran, will cause a huge damage to the Iraqi Province of Diyala which could be seen as inconsistent*

*with the principle of equitable and reasonable use of international rivers.*

*Furthermore, Article 7 of the UN convention 1997 provides for an obligation not to cause significant harm in terms of using the international rivers by the Watercourse States. In the context of this paper, it could be argued that Iran has not complied with this provision as an upstream country due to constructing many dams, reservoirs and canals to transport water which has resulted in the shortage and lack of water levels entering Iraq. Consequently, this has led to a serious damage to the agricultural sector in Diyala Province, as well as negative impact on the rest of the other sectors.*

*It is also important to note that under the international law a general obligation to cooperate exists among the Watercourse States. This is by virtue of Article 8(1) and (2) of the UN convention 1997. For instance, Article 8(1) states that Watercourse States should cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilization and adequate protection of an international watercourse.*

*Article 9 on the other hand provides for a regular exchange of data and information. Pursuant to Article 8, watercourse States shall on a regular basis exchange readily available data and information on the condition of the watercourse, in particular that of a hydrological, meteorological, hydrological and ecological nature and related to the water quality as well as related forecasts.*

*As for the measures to be taken, Part III of the UN convention 1997, Articles 11-19 addressed this issue. Article 12, for instance, states that before establishing possible measures that may have a detrimental effect on the rest of the downstream countries, a notice to those countries should be taken before a suitable period of time in addition to attaching all the information and data so as to enable the rest of the downstream countries to study and to assess the resulting damage caused by such measures. In other words, the Article stipulates the requirement of notification concerning planned measures with possible adverse effects.*

*As for the harmful conditions, Chapter V of the UN convention 1997 dealt with this issue. Article 27 provides for the prevention and mitigation of harmful conditions. The Article states that watercourse States shall, individually and, where appropriate, jointly, take all appropriate measures to prevent or mitigate conditions related to an international watercourse that may be harmful to other watercourse States, whether resulting from natural causes or human conduct, such as flood or ice conditions, water-borne diseases, siltation, erosion, salt-water intrusion, drought or desertification. It is important to note that as an upstream country, Iran failed to comply with the provisions of Article 12 which provides for the need of a prior notification for any project intended or planned to be implemented on the rivers. Iran failed to notify Iraq of any of the projects carried out or planned to be implemented on the joint rivers with Iraq, but it wrapped it with secrecy. It has also violated the principle of equitable and reasonable utilization and participation because it tried to control all the common rivers with Iraq without considering the interests and rights of Iraq in the use of these international waters. In addition, due to Iran's failure to prevent or minimize the harmful conditions resulting from its behavior, it indeed caused drought and desertification in Iraq, especially in Diyala Province.*

## **Chapter Four**

### **The Use Of The Diyala River By Iran And Its Effect On The IRAQI Province of Diyala**

*During the middle of the last century, Iran started to construct a massive number of projects in the Basin of Diyala River that it shares with Iraq without notifying or consulting Iraq as a downstream country<sup>(26)</sup>. Iran since 1953 started building channels extended to the city of Qasir Shirin and the city of Khosroi to withdraw and transfer the water of Al-Wand River, a tributary of the Diyala River, deep into the Iranian territory, as well as constructing dams on the course of this river inside the Iranian territory for the purpose of controlling its water which led to a decline in the water level of this river at the*

*borders Iran-Iraq from 58m<sup>3</sup> to 3m<sup>3</sup>(27). Since 2007, Iran has started to reduce the release of the water of Al-Wand by 80%,(28) and from 2008, Iran started, in every summer, to cut the water in this river(29). This led the river to dry up, which consequently affected the city of Khanaqin, located on the banks of this river. This led to the destruction of 1,650 hectares of orchards and resulted in about 60% of the desertification of agricultural land of this city, which is located in the Iraqi Province of Diyala as well as affecting more than 700,000 Iraqi families due to lack of water(30). Moreover, Iran built many dams and canals to divert the water of the tributaries of Diyala River such as Qashlagh dam and reservoir on the tributary Qashlagh with a capacity of 960 million m<sup>3</sup> which was constructed in 1978 and the same applies to QaraTu tributary on which many of the dams and canals were built which led to a significant decrease in the imports of waters entering into Iraq that exceeded half of its natural imports before the construction of these projects(31). Besides, Iran exploited the water of Abbasan tributary and other sub-tributaries of Diyala River by constructing dams or diverting their courses deep into the Iranian lands. Since 2004, Iran has started to divert the course of Sirwan River deep into the Iranian lands by constructing two long tunnels through the mountains to transfer an amount of 2.6 million m<sup>3</sup> of the water into the Iranian region of Juanro(32). Upon the completion of this project, it will greatly affect the flow of water into Sirwan River which is the main feeder of Diyala River and also other projects such as Gavoshan Dam Project which was constructed on Gavoh Road stream. Gavoshan Dam Project includes a tunnel of 20 km and transfers channels of a length of 500 km which can transfer 317 million cubic meters of water, annually(33). Other dams include Darian Dam(34), and Garan Dam(35) etc.*

*The projects constructed by Iran had the greatest impacts in reducing the amount of water entering into Iraq through Diyala River apart from the natural factors represented by the varying rainfall in the river basin from one year to another(36). After having an overall rate of up to 5.5 billion cubic meters a year, it fell down to 1.1 billion cubic meters in 2008 and to 1.2 billion cubic meters in 2009(37). Water*

*is the basis of everything and it is linked to all sectors of life on the ground and the shortage of water affects different sectors especially the agricultural sector. As such, the lack of every billion cubic meters of water led to the loss of 62,500 hectares of arable land for agriculture<sup>(38)</sup>. Diyala Province is very famous as an agricultural province where the irrigated area of arable land in the province was estimated to be 375,000 hectares<sup>(39)</sup> before the construction of these projects by Iran. As a result of the construction of these projects by Iran, 42% of the estimated 375,000 hectares of arable land became unfit for cultivation<sup>(40)</sup>. Hence, the shortage or lack of water in Diyala River highly affected the agricultural sector, which the province was famous of. The shortage of water in the Diyala River has destroyed about 34% of the groves of the province<sup>(41)</sup>. Moreover, Mrs. Nahida Al-Daini a Member of Parliament for Muqdadiah City in Diyala Province stated that the rate of desertification in the lands of Diyala Province reached about 70%<sup>(42)</sup> due to the lack of water in this river. Mr. Furat Al-Tamimi, an Iraqi Member of Parliament for BaladRuz City in Diyala Province and chairman of the Committee of Agriculture, Water and Marshes in the Iraq Parliament stressed the case of the low levels of water in the Hamrin Lake because of the Iranian government interfering with of some springs of Diyala River and the lack of rain<sup>(43)</sup>. Besides, the stored water of the Lake is insufficient to meet the needs of the Province in terms of drinking water and the agricultural needs which will consequently have a great effect on the agricultural production<sup>(44)</sup>.*

*As for the production of hydroelectric power, there are two plants for the production of hydroelectric power on Diyala River, namely, the plant on Lake Derbandikhan Dam with a capacity of 249 MW and the plant of Hamrin Lake Dam with a capacity of 50 MW<sup>(45)</sup>. These types of power plants depend on the water level in the lakes, located behind the dams. The shortage of the amount of water in the course of Diyala River affected the water level in the lakes located behind these dams, namely, Derbandikhan Lake and Hamrin Lake and the level of water was below the minimum (dead storage) as what happened in the Hamrin Lake in 2008 where the level of the stored*

water dropped to 84.5 meters<sup>(46)</sup>. This serious figure approximately reached the level of the dead storage which was according to the design of the lake 87 meters<sup>(47)</sup>. This directly affected the production of hydroelectric power which decreased in Hamrin Dam in 2009 due to the shortage of water in the lake which reached to a capacity of 0.8 MW<sup>(48)</sup>.

Regarding the rest of the sectors, the shortage of water in Diyala River has had an impact on the health sector in that as the decline and lack of water levels affected the water quality which, in turn, led to the spread of water-related diseases, such as typhoid, diarrhea, etc<sup>(49)</sup>. Besides, water shortages highly affected the Animal and Fish Resources in Diyala River in addition to the impact on the environment etc<sup>(50)</sup>.

## Conclusion

Diyala River is one of the international rivers shared between Iran as an upstream country and Iraq as a downstream country. This river is considered as the main source of water supply in the Diyala Province. There is no doubt that the absence of a bilateral Iraqi-Iranian agreement to organize and manage the waters of the Diyala River and other riparian rivers does not consequently allow Iran as an upstream country to use and exploit the water of this international river individually without due regards to international principles and rules governing the management, use and maintenance of an international watercourse. Iran's use of the waters of the Diyala River i.e. by constructing dams, reservoirs and canals to divert the course of the river deep into the Iranian lands without any commitment to the rights of Iraq as a downstream country, which has led to the destruction of vast tracts of arable lands in addition to environmental, animal, industrial damage etc. represents a violation of the principles and rules of international law relating to the use of international rivers. This act of Iran is tantamount to human rights violation that ensures that the people living in Diyala Province have access to adequate water supply. As a result, Iraq should work on

*signing an agreement with Iran to regulate the management, conservation and good use of the Diyala River as well as other rivers that it currently shares with Iran in order to determine the water quotas for both countries. Perhaps Iraq should also make full use of Article 7(2) of the UN convention 1997 as a basis for seeking compensation from Iran due to the significant harm that Iran has caused to Iraq as a result of utilizing the waters of the Diyala River in total disregard of the principles of international law. It is submitted that in case of failure to reach an agreement between Iraq and Iran, the other alternative would be to resort to the international arbitration or international court according to the rules of international law to preserve and guarantee Iraq's right in the Diyala River and the other rivers jointly shared with Iran.*

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## استعمال نهر ديالى بين ايران والعراق: من منظور القانون الدولي

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### ملخص البحث

على مر السنين، بدأت إيران ببناء عدد من المشاريع على الأنهار الدولية المشتركة مع العراق، بما في ذلك نهر ديالى، أحد روافد نهر دجلة دون مراعاة لحقوق ومصالح العراق كونها دولة المنبع. وقد استخدمت إيران مياه نهر ديالى من خلال بناء العديد من المشاريع والتي بدورها أثرت بشكل كبير على كمية المياه الداخلة إلى العراق. وأيضاً، تدهورت نوعية المياه التي تدخل العراق بسبب بناء هذه المشاريع. وكنيجة لنقص المياه بسبب بناء هذه المشاريع، عانت القطاعات الزراعية والصناعية معاناة كبيرة في محافظة ديالى. تهدف هذه الورقة إلى دراسة استغلال الموارد المائية، وخاصة نهر ديالى بين إيران والعراق من وجهة نظر القانون الدولي. المنهجية المتبعة في هذه الورقة هو قانوني أبحاث مقرها مكتبة تركز أساساً على المصادر القانونية الأولية والثانوية.

ويخلص البحث إلى أن إيران قد انتهكت مبادئ القانون الدولي، مثل الاستخدام المنصف والمعقول والمشاركة، والتعاون الدولي، الخ. وأخيراً، يوصي البحث أن العراق يجب أن يعمل على أسس دائمة مع إيران من أجل تنظيم إدارة نهر ديالى، الذي هو رافد من نهر

دجلة وذلك تمثيلاً مع مبادئ القانون الدولي، مثل اتفاقية قانون الاستعمالات غير الملاحية للممرات المائية الدولية لعام ١٩٩٧.