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Deanship of Scientific Research

Employing Turkish Water Security Policies and their Repercussions on the Arab Region: Iraq and Syria as an Example

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Abstract

Objectives: This study examined Turkey's water policy on the Tigris and Euphrates rivers, its effects on Iraq and Syria, and how it impacts their relationships. It also explored the possibility of using negotiations to establish water-sharing agreements.

Methodology: To achieve its objectives, the study employed a combined approach. It analyzed Turkey's water policy, its impact on the parties sharing the two rivers with it, and relevant international water laws for dispute resolution.

Results: The study found that water security is closely linked to food security within countries. Turkey's water policy focused on building water projects. It also showed that Turkey views the two rivers as national resources, not subject to international water law, despite their importance to downstream countries like Syria and Iraq, who rely heavily on these rivers for water due to limited rainfall. Therefore, Turkey's water policy is a major source of tension in the region.

Conclusion: Turkey's control of the Euphrates and Tigris rivers through water projects has strained relations between the countries involved and has created tension with Iraq and Syria. These downstream countries rely entirely on these rivers, leading them to suffer as water flow has decreased due to Turkey's upstream position and its leverage. Turkey's control of the rivers is seen as exploitation and a tactic to gain regional influence.

Keywords: Water security, Turkey's water policy, Turkish water projects, negotiations on the Tigris and Euphrates rivers.

توظيف سياسات الأمن المائي التركي و انعكاساتها على المنطقة العربية: العراق وسوريا أنموذجاً

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ملخّص

الأهداف: تتناول الدراسة سياسة تركيا المائية، وأثرها على العراق وسوريا، والغاية التي تسعى تركيا لتحقيقها، وأثر ذلك على العلاقة مع الدولتين، وتهدف الدراسة إلى اللجوء إلى المفاوضات للتعاون بين الأطراف حول تقسيم مياه النهرين.

المنهجية: للتحقق من فرضية البحث، اعتمد المنهج النظمي من خلال تحليل سياسية تركيا المائية، والوصفي من خلال وصف تأثير سياسة تركيا المائية على الأطراف المشتركة معها في النهرين، والقانوني لتحديد القوانين والاتفاقيات الدولية التي تنظم المياه لحل الخلافات بين الدول المشتركة في المجرى المائي.

النتائج: يرتبط الأمن المائي ارتباطا وثيقا بالأمن الغذائي داخل الدول، فسياسة تركيا المائية تركز على بناء المشاريع المائية، وتعتبر تركيا أن النهرين ليسا دوليين، وإنما أنهار عابرة للحدود؛ أي أنها تعتبرهما ملك لها، فلا تنطبق عليهم قواعد القانون الدولي للأنهار الدولية، فيما يعتمد كل من العراق وسوريا على مياه النهرين؛ لأنهما المصدر الوحيد للمياه، يرجع ذلك إلى قلة تساقط الأمطارو الثلوج بالإضافة إلى التغييرات المناخية، فيما استخدمت تركيا المياه كسلاح للضغط على الطرفين؛ فسياسة تركيا المائية تعد من أبرز أسباب التوتر في العلاقة مع الأطراف المشتركة معها في النهرين.

الخلاصة: عملت تركيا كدولة منبع مياه النهرين ببناء مشاريع مائية للتحكم بالنهرين تجاه المنطقة العربية, وشكلت قضية المياه عائقاً في وجه العلاقات بين تركيا من جهة وبين العراق وسوريا، فيما تعد تلك الأنهار من أهم أسباب الأزمة بين تلك البلدان، إذ تلجأ تركيا إلى استغلالها لصالحها، وتسعى لرسم دور لها على المستوى الإقليمي والدولي، وقد انعكس ذلك سلباً على العراق وسوريا الذين يعتمدان بشكل كلي على مياه النهرين كمصدر وحيد للمياه داخل الدولة.

الكلمات الدالة: الأمن المائي، سياسة تركيا المائية، المشاريع المائية التركية، المباحثات حول نهري دجلة والفرات

Introduction:

Water holds significant importance as a natural resource and a cornerstone of sustainable development. Water is closely linked to economic, social, environmental and demographic development, and therefore the demand for it from these sectors is increasing, making it a source of strength that countries employ to enhance their regional and global roles and positions. Water security is closely linked to achieving food security, primarily due to its importance in agricultural and industrial projects, which has heightened interest in it.

Employing the Turkish water security policy reflects interactions between water security challenges and national and regional interests. Turkey's water policy is one of the basic elements in its strategic planning towards the Arab region in order to achieve regional stability through that policy that it follows, resorting to water protection through dams and projects that have been established. This policy was the reason for the tension in relations between the parties: Turkey's belief that the Tigris and Euphrates rivers belong to it, given that they originate from Turkish territory, and the lack of legal commitment to each party's share of its percentage of the rivers his policy has negative effects on the other parties (Iraq and Syria), given that they depend entirely on water from the sources of the two rivers. These effects are reflected in their water supplies and economic development, and they also have negative effects on the relations of the parties.

On the other hand, Iraq and Syria are among the prominent Arab countries suffering from water resource scarcity, making the water issue a major topic that creates tension in their relations with Turkey, the upstream country for both rivers. Turkey has resorted to establishing water projects and dams to control the water for its Interests in various fields, including economic in agriculture, industry, trade, and environmental, as well as political purposes to strengthen its regional role. At the same time, water resources are considered equivalent to oil resources as a natural resource. Therefore, Turkey's water policy has negative effects on Iraq and Syria, including decreased electricity generation, threats to agricultural and industrial production, increased rates of drought, desertification, global warming, in addition to the climatic conditions they experience. All this has led to scarcity and a shortage in water security, which may threaten food security as they are interconnected.

Study Objective: : The main objective of the study addresses Turkey's water policy and its impact on Iraq and Syria in various aspects, including the political, economic, environmental and demographic aspects, the goals it seeks to achieve and the impact of this on the relationship with the two countries. The study aims to resort to negotiations and dialogue for cooperation between the parties regarding the division of river waters, Tigris and Euphrates.

Research Problem: stems from a basic question: How does Turkey's water policy affect the Arab region through studying the water security models of Iraq and Syria? Is this the reason for the tension in bilateral relations with the two countries?

It is divided into a group of sub-questions:

What is the concept of water security? What are Turkey's water policies towards Iraq and Syria and the goals it seeks to achieve through those policies? What are Turkey's water projects towards the Arab region and the impact of those projects on Iraq and Syria? What are the parties' efforts to enter into discussions on sharing water resources (the Tigris and Euphrates)?

Hypothesis: There is a direct and direct impact between Turkey's water policy and the water security gap that both Iraq and Syria face. This policy followed by Turkey is one of the reasons for the dispute with the two countries, at a time when Turkey aims to control the waters of the two rivers to ensure its internal water security, which It negatively affects the interests of the other parties with whom they share the two rivers, in addition to the fact that they suffer from a scarcity of water resources due to their total dependence in the water aspect on the water of the Tigris and Euphrates rivers, which serves the various sectors within the two states.

Methodology: To verify the research hypothesis, the systematic approach was adopted by analyzing Turkey's water policy, building dams and the goals it seeks to achieve through that policy, and the descriptive approach by describing the impact of Turkey's water policy on the parties involved with it in the two rivers (Iraq, Syria). The legal framework is to determine the international laws and agreements that regulate water to resolve disputes between the countries participating

in the watercourse by clarifying the share of each of the three parties (Turkey, Iraq and Syria) from the waters of the Tigris and Euphrates rivers according to the principles of international law.

Previous studies:

1. Omar Ahmed Hussein and Jabbar Muhammad Mahdi, Uses of the Euphrates River's waters among riparian countries according to international law, Journal of Legal and Political Sciences, Volume 7, Issue 1, 2018.

Study Objective: The upstream countries of the Euphrates River began to establish many of their projects on the course of the river and its tributaries without regard to the rights and interests of the downstream country, Iraq. These projects led to a shortage in the quantity of water and its poor quality, which directly affected Iraq and caused damage to all sectors, especially the irrigation and agriculture sectors. Turkey's upstream countries have violated the principles and rules of international law related to international rivers shared between upstream and downstream countries.

search result.

It is clear to us from the above that the Euphrates River is an international watercourse in accordance with the rules and principles of international law, and that Turkey's use of the term transboundary river was responded to by the International Law Commission at the United Nations, considering that all the terms used express one meaning, which is the international watercourse adopted by the United Nations. According to its agreement, in addition, the Euphrates River is considered a separate and independent water basin from the rest of the other water basins, and as a result, it is subject to the rules and principles of international law related to international watercourses.

Previous studies

2. Mahdi Falih Nasser, A geopolitical analysis of Turkish water policy and its impact on Iraqi water security, Al-Ma'moun University College Journal, Issue 23, 2021

Study Objective The study aims to analyze the geographical and political reality, which seeks to study the possibility of achieving water security, which is one of the main and fundamental pillars of achieving food security, which cannot be achieved without providing water resources, as developing and preserving these resources will meet the current and future needs of water for uses. all . The study aims to analyze the reality of Turkish water policy, focusing on its most important dams and implemented water projects.

Results: Turkey refuses to consider the Tigris and Euphrates rivers within the concept of international rivers. It seeks to establish a water policy that serves its interests and aims through this to establish water projects that achieve its economic, political, security, social and other goals and to put pressure on the parties that share the rivers with it.

3. Frederick Lorenz and Edward J. Erickson, Strategic Water Iraq and Security Planning in the Euphrates-Tigris Basin, Marine Corps University Press Quantico, Virginia, 2013

Study Objective This book is about water security in a broad context and is much more than a simple discussion of access to water. The National Intelligence Council recently issued a report noting that water challenges could trigger social disruption, and in some states where other stressors exist, state failure is possible. In the Middle East, water security is closely entwined with political stability, and it will become increasingly important to U.S. national interests. This work is designed to focus attention on Iraq and to make detailed recommendations on what can be done to assist.

Results: Transboundary Water Initiative A success would be a tripartite agency with the authority to allocate or make binding decisions on water in the basin. Turkey will continue to resist any "internationalization" of the issues and will increasingly dominate the basin. Bilateral agreements may be a short-term alternative, but only when they are viewed as being in Turkey's national interest. E2. Continued assistance to the Iraqi government in developing effective water management and a long-term water management plan. Success will be the presence of an active Iraqi Ministry of Water Resources that is capable of coordinating and planning its work at the internal and international levels. Actions must be taken in the short term to have any long-term impact.62 The potential impact is high, and the probability of success is moderate. Detailed recommendations for this can be found in the Geopolitics report. Given the relatively low cost of technical assistance for this option, it should receive high priority.

Structure:

The research was divided into a summary, introduction and two sections, in addition to the conclusion, conclusions and recommendations.

The first section dealt with the theoretical concept of water security, Türkiye's water policy and its goals towards Iraq and Syria

The second section dealt with: Turkey's water projects on the Tigris and Euphrates rivers, their effects, and discussions between the parties about those rivers.

The first section: The theoretical concept of water security. Turkey's water policy and its goals towards Iraq and Syria

The Theoretical Concept of Water Security:

Water security is defined as the availability and quality of accessible water, denoting a stable condition of water resources where a nation possesses sufficient means to prevent damages arising from water scarcity to meet the needs for agriculture, industry, drinking water, and other uses. Water sources may include rainwater, surface water such as oceans, rivers, ponds, and polar ice, or groundwater beneath the surface (mahmoud, 2023, p. 107). Other definitions of water security view it as the population's capacity to ensure sustainable access to adequate quantities of acceptably quality water to maintain livelihoods, human well-being, socio-economic development, safeguard against water-borne pollution, preserve ecosystems amidst peace, political stability, and ecological systems. Achieving water security necessitates equitable, efficient, and transparent distribution among users, ensuring water for basic human needs is accessible to all at a reasonable cost to the user (Water security& the global water agenda, 2013, p. 1). Water security is a cornerstone of human security in general and national security in particular, given some countries' struggles with declining water levels and its impact on internal water security. This has prompted research institutions to focus on water security issues and participate in conferences, such as the Second International Water Conference held in 2000, which defined water security as the ability of any individual to access sufficient water at an affordable cost to live a clean, healthy, and productive life (Majeed, 2023, p. 262). Water policy is approached as a systematic analysis and cooperation among states regarding international water resources, establishing a framework for agreements on available water resources, and deriving a set of rules and procedures organized for those resources at both domestic and international levels, as defined by the water resources dictionary as a collection of technical, legal, and institutional measures addressing national activities related to the quantity and quality of water resources and their utilization (Majeed, 2023, p. 263).

In recent times, the demand for water has increased due to population growth alongside economic and social development. This is compounded by water loss through evaporation and mismanagement of water resources. Other factors include a lack of sufficient expertise in water management and the absence of necessary material resources for water affairs management, leading to imbalances in the availability and quality of water. These are the primary reasons for disruptions in water security (mahmoud, 2023, p. 94).

Water is a strategic resource, just like oil, gas, or mineral wealth, so the term strategic water was given to it. It is considered inherently unstable in terms of quantity and quality. It is variable from year to year, difficult to measure quantitatively, and often unpredictable. It is affected by nature, human use, and when it flows across borders. Nationalism: Each country will develop its own claims based on concepts of national sovereignty. Therefore, strategic waters represent major challenges at the national and international levels and have profound implications for the human condition (Lorenz & J. Erickson, 2013, p. 2).

Therefore, achieving water security within a nation depends on five fundamental dimensions, which are as follows (Asian Water Development Outlook 2013 Measuring Water Security in Asian and the Pacific, 2013, p. 11):

1. Domestic Water Security: This fundamental element prioritizes the availability of safe and adequate water resources. Water security forms the primary objective to eradicate poverty and support economic development.
2. Economic Water Security: Water fosters food growth, powers industries, and cools electric power stations. Thus, the interconnection between water, energy, and food should be considered.

3. Urban Water Security: With the increasing migration of populations to urban areas, the demand for water has surged, along with a focus on industrial development.
4. Environmental Water Security: This is a critical element as it assesses the health of rivers and ensures enough water for health and production to achieve sustainable development.
5. The final dimension involves the capacity to address challenges such as climate changes, rising temperatures, global warming, and others.

Secondly, Turkey's Water Policy towards Iraq and Syria:

Turkey is among the countries rich in water resources in the region, attributed to its status as the source country for the Tigris and Euphrates rivers, in addition to possessing a significant amount of water from other sources including annual rainfall and snowfall. Consequently, water is considered a natural resource that constitutes a source of power potentially influencing the political power map in the region and granting the country a role and status at the regional level. Turkey has utilized this advantage to strengthen its regional role through the abundance of water resources it enjoys (Salman, 2017, p. 728). On the other hand, it suffers from a lack of other mineral resources, a fact expressed by former Turkish Prime Minister Suleyman Demirel who stated, "Water is the only wealth we possess because we are not an oil country, despite having a little oil and some gas. We must work hard to support our economy." Therefore, the Turkish government has exploited its water policy to develop its agriculture and economy and also to strengthen its regional role, resorting to the construction of numerous dams facing the Arab countries linked to it by the Tigris and Euphrates rivers (Radwan, 2006, p. 81).

On the other hand, Turkey believes that these rivers are not international but cross-border according to its perspective, thus considering that international agreements or rules of international law governing international rivers are not applicable to the Tigris and Euphrates (Hamid, 2015, p. 81). Among them is the Helsinki Rule for the Use of International Waters and Rivers in 1966, which included the right of the state from whose land the river originates or whose territory it enters, which is a right subject to international law. It also guarantees the right of all countries participating in the river to obtain a fair share, meaning that the waters are divided fairly, and the Convention The United Nations of 1997 regarding the use of international watercourses, in paragraph 2 of Article 5, which stipulates equitable sharing between the countries sharing the waters. States shall share in the use of an international watercourse in a fair and reasonable manner among them. The agreement also stipulates equitable distribution between the parties in accordance with Article 7 and taking measures to prevent Without causing any harm to me (Al Nuaimi , 2012, p. 33)

Despite international law not distinguishing between a river within the borders of a single country and an international river that flows through multiple countries, developments in water use, including for hydroelectric power, have introduced the term "international waters" to describe waters that lie within a single basin or extend in any part of their course within the territory of two or more countries, including all tributaries of the river course, whether supplying water to the river or distributing water from it (Jremit, 2021, p. 168). Despite this, Turkey still does not recognize the international status of the Tigris and Euphrates rivers, attributing this to its position as the source country for these rivers, hence intervening in the quantity and quality of water entering the territories of those countries (Radwan, 2006, p. 74).

Moreover, it is evident that relations between countries sharing water resources, especially when the source country controls water resources, can sometimes lead to disputes and conflicts between those countries, as observed in the relations between Iraq and Syria with Turkey. Tensions between them stem from water resources on the Tigris and Euphrates rivers (Wahab, 2014, p. 261).

The geography and hydrology of the Tigris and Euphrates river basin and the competing water needs of Turkey, Syria and Iraq make competition and conflict over water resources in the basin inevitable, as the sources of both rivers rise almost entirely in the mountains of the Turkish Eastern Anatolia region, which are fed by melting snow and spring rains (Richard Hansen , 2012, p. 3).

The Tigris River originates from the Taurus Mountains in southeastern Anatolia, Turkey, and has a length of approximately(1,718 kilometres), of which about (268 kilometres) are within Turkish territory, (50 kilometres) in Syrian territory, and (1,400 kilometres) in Iraq, passing through various regions within Iraq such as Mosul, Baqubah, Samarra,

Baghdad, Baiji, Tikrit, Al-Qurnah, and Al-Amara. Thus, the Tigris is distributed among Turkey, Syria, and Iraq with percentages of (31.9%) for Turkey), (5%) for Syria , and (54%) for Iraq (mahmoud, 2023, p. 104).

The Euphrates River, on the other hand, originates from the highlands of Armenian Turkey and has a length of 2,940 kilometres', with 1,176 kilometres in Turkey, 604 in Syria, and 1,160 in Iraq. Turkey's geostrategic location as the source country for two international rivers, in addition to being a bridge connecting Europe and Asia, aims to link the interests of Arab countries with Western interests. This strategic position is one of the most significant geostrategic assets Turkey enjoys, increasing its importance in relation to its neighbour's, especially Syria and Iraq, concerning the rivers (Abdul Hassan & Khudair, 2011, p. 141). Additionally, some Turkish officials have mentioned that Turkey finds its strength in water and that its projects and dams will secure a position and status in the region. Thus, successive Turkish governments have utilized water to achieve multiple purposes and objectives (Talfah, 2008, p. 9).

Thirdly, The Objectives Turkey Aims to Achieve Through Its Water Policy:

Turkey, leveraging its abundant water resources, seeks to realize a series of goals, including the following:

1. Economic objectives, which include:

A. Expanding agricultural land: Turkey aims to become a food basket for the region, ranking among the major food-producing and exporting countries, and achieving food security domestically. This is pursued through reliance on water resources and the expansion of agricultural land, which negatively impacts the territories of both Iraq and Syria (Wahab, 2014, p. 267).

B. Promoting tourism: Through its water policy, Turkey works to maintain the purity and beauty of lakes, rivers, and beaches, thereby attracting more tourists to the region.

C. Enhancing trade between countries: Considering that the rivers are shared with other countries like Iraq and Syria, Turkey has worked towards making these rivers a corridor for trade and the movement of goods and commodities (Nasser, 2021, p. 82).

2. Political objectives, which include:

A. Using water as a weapon to achieve its regional objectives, beyond merely generating hydroelectric power through its water policy (Wahab, 2014, p. 268).

B. Striving for a regional and leadership role in the area by accumulating water surplus, constructing dams, reservoirs, and irrigation projects, thereby influencing neighbouring countries that completely depend on the river waters. This has been used as leverage over these parties (Zahir, 2012, p. 404).

C. Expanding its regional power to serve as a bridge between Europe and the Islamic world. Thus, Turkey works on extending its regional dominance and utilizes water as core strength (Zahir, 2012, p. 410).

D. Exchanging water for Arab oil to strengthen its role and position, considering water as a natural resource wealth no less significant than oil. This strategy has brought substantial benefits to Turkey in this aspect (Zahir, 2012, p. 414).

Section Two: Turkey's water projects on the Tigris and Euphrates rivers, their effects, and discussions between the parties about those rivers.

Firstly: Turkey's Water Projects Towards the Arab Region (Iraq and Syria):

In recent times, Turkey has managed to control the quantity and quality of water reaching beyond its territories through technological advancements and the establishment of a series of dams and irrigation projects. This has been a cause of water crises with Iraq and Syria.

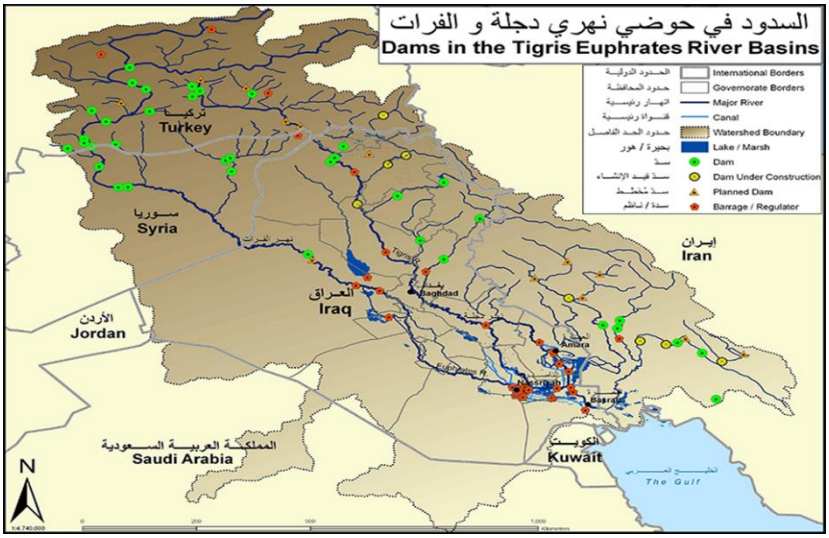

Figure (1) Dams and Water Projects on the Tigris and Euphrates Rivers

Source: Raji Saad, "The Deadly Turkish Projects and Dams and the (Disappearance of the Fertile Crescent)," Sirjil Newspaper, 2020.

Among these projects are the following:

1. **The Southeastern Anatolia Project (GAP):** This project, one of the largest in the Middle East, consists of 22 dams, including 14 on the Euphrates and 8 on the Tigris, making it one of the largest dam projects in the world. Turkey initiated this massive project without informing the neighbouring states sharing these rivers, leading to negative impacts on their water security. The water flow could decrease from (28 billion m³) to (13 billion m³) , meaning both sides could lose approximately(15 billion m³) .

Turkey's objectives for this project include:

i. **Economic goals:** The project aims to foster economic development in Southeastern Turkey by utilizing water for product exportation and agricultural sector expansion, thereby increasing the agricultural land area, and enhancing hydroelectric and electrical power generation to no less than 27 billion kilowatts.

ii. **Political objectives:** To assert its regional role and establish a distinctive status in the Arab world and the Middle East. Turkish President Turgut Özal stated that the project would make Turkey a developed and strong country, turning it into one of the thriving areas in the world (Zahir, 2012, p. 446).

Some of the most notable dams within this project on the Euphrates include the Atatürk Dam, Karakaya, Karkamış, Birecik, Büyükçekmece, Cizre, Dicle, and several others. On the Tigris, the project includes dams like Batman, Dicle, Ilısu, and others. This initiative and its offshoots have provided vast irrigation to Turkish provinces and generated substantial hydroelectric power, estimated at 18,477 billion kilowatts (Radwan, 2006, p. 170).

Famous dams resulting from this project:

i. **Atatürk Dam:** Constructed in 1992 on the Euphrates, it is the fourth largest dam in the world with a storage capacity of (48.7 billion m³) and located (200 kilometres) from the Karakaya Dam. It aims to expand energy, irrigation, and development while also housing a hydroelectric power station producing(2,520 MW) (Salama, 2001, p. 101) .

ii. **Karakaya Dam:** Built in 1987 near the Keban Dam, its primary purpose is electricity generation, housing a hydroelectric power plant with a capacity of(1,800 MW) .

iii. **Ilısu Dam:** It is one of the largest Turkish dams located on the Tigris River, with a storage capacity of 4.10 billion cubic metres. The goal of this dam is to generate electrical energy estimated at 1,200 megawatts. It has negative effects on Iraq, including economically and socially, if the dam reduces the water level and thus a decrease in agricultural land. And the green belt and the increase in salinity in the soil, and it also has an impact on agricultural lands, and its impact on unemployment, especially in rural areas, as a result of the migration of farmers to search for work in the cities, and also

fishermen are affected by this dam, as the decrease in water levels negatively affects fish wealth (Wahab, 2014, p. 254) ,and its impact also extends to energy. Hydroelectricity, through a decrease in the water level in the Tigris River, will affect the work of the hydroelectric system along the Tigris River from the Mosul Dam to the Samarra Dam, and this affects the country's industry and infrastructure as well, and the decrease in water in the state's internal reservoirs (Wahab, 2014, p. 255). Iraq explained the effects of the Ilisu Dam on it to the Turkish government, and the Iraqi Minister of Water Resources stated that the Ilisu Dam project is not only limited to the economic aspect, but also has other political dimensions (Wahab, 2014, p. 290).

The Peace Pipeline Project: In 1986, a pipeline called Water for Peace was extended to sell water to Arab countries, which means exchanging Arab oil for water (Wahab, 2014, p. 268). This pipeline is located from eastern Turkey and then passes through the western side and the Gulf Cooperation Council countries. The West Bank includes Turkey, Syria, Jordan, and Saudi Arabia. The Gulf Cooperation Council countries, Kuwait, Saudi Arabia, Bahrain, Qatar, the Emirates, which led to Iraq being deprived of the water of the Euphrates River, as Iraq had received 9.34 cubic meters of water before this project, which was 4 billion cubic meters less than its share before this project. This had negative effects on agriculture and population and increased immigration. From rural areas (Abbas & Shalibta, 2006, p. 218).

Through the Peace Water Project or Peace Pipelines, Turkey aims to:

i. Pressure the concerned nations into accepting the situation, enabling it to bolster its regional influence and generate financial returns from water sales. This effort includes trading water for Arab oil, with the project ensuring the production of hydroelectric power, which accounted for 44% of Turkey's total in 1994 (awad, 1998, p. 76).

ii. Transport surplus fresh water from Turkey southward. In 1987, then Prime Minister Turgut Özal proposed selling Turkish water to neighbouring countries in the water-scarce Middle East. This concept relied on exporting surplus water from Turkey's Ceyhan and Seyhan rivers to Middle Eastern countries through two pipelines: the southern line covering Syria and Jordan to Saudi Arabia, and the eastern or Gulf Pipeline, delivering water to Kuwait, Saudi Arabia, Bahrain, the United Arab Emirates, and Oman (Radwan, 2006, p. 172).

iii. This project plans to lay long pipelines that would provide large quantities of water at low cost, thereby mitigating conflicts and disputes over water resources among nations.

Secondly, the impact of Turkey's water policy on Iraq and Syria:

The water issue between Turkey and the Arab countries (Iraq, Syria) dates back to the 1970s, after Turkey initiated several projects and dams. These projects have had a negative economic impact on the two countries, particularly on the agricultural and industrial sectors, as well as on water storage policies (Jremit, 2021, p. 169).

Turkey has executed its water policy towards the Arab region, specifically targeting Iraq and Syria, by establishing water projects. The upstream country's projects threaten the shared river countries, using water as a tool for political, economic, or regional pressure. Turkey has utilized its water policy as leverage over other parties, considering the Euphrates and Tigris rivers as its own since they originate within Turkish territory (Abbas & Shalibta, 2006, p. 217). Iraq and Syria, however, regard these as international rivers with rights to their waters under international law. Iraq has repeatedly protested, heavily relying on surface water, making its complete dependence on the Tigris and Euphrates rivers a crisis (Zahir, 2012, p. 412).

Moreover, these countries prioritize water issues due to their experience with water scarcity, driven by climate conditions, periods of drought, desertification, population growth leading to increased water consumption, and Turkey's water projects. All these factors have led them to face water deficits (Salama, 2001, p. 94).

Water quantity and quality are likely to be a major cause of regional instability, leading to deteriorating economic and health conditions (Lorenz & J. Erickson, 2013, p. 13)

The water scarcity affecting Iraq and Syria stems from several factors:

1. Recent conditions in Iraq, including war and lack of security, have impacted water quality and quantity, leading to health risks, affecting irrigation, agriculture, and leading to silt accumulation in water channels and pumping stations. This has impacted crop yields and prompted significant rural-to-urban migration in search of work post the American

invasion of Iraq. The use of closed systems and pumping stations aimed to improve irrigation efficiency (Water Governance in the Arab Region: Managing Scarcity and Securing the Future, 2014, p. 74).

2. Climate change poses a significant challenge to achieving water security and sustainable development. This includes temperature variations, reduced rainfall, wind patterns, and global warming (mahmoud, 2023, p. 104), leading to increased evaporation and affecting water resources, such as soil moisture, necessitating more irrigation (Müller, 2022, p. 30).

3. Turkish water projects have had various negative impacts on Iraq and Syria, including:

i. Agriculture: The decrease in water resources due to Turkish dams has led to reduced agricultural land, lower production, increased soil salinity, and impacted livestock and crop farming within the country, forcing Iraq to import food (Majeed, 2023, p. 273).

ii. Environment: Water scarcity can lead to desertification, drought, negative impacts on marshlands, including environmental droughts, affecting soil fertility and water quality (mahmoud, 2023, p. 102).

iii. Energy: Turkish projects and dams have weakened hydroelectric power generation since hydroelectric power plants are usually situated near dams and waterways.

iv. Population: Water projects can disrupt the availability of potable water and affect people living near the river courses.

4. One noticeable impact is the decrease in water levels, as seen in the GAP project, where Iraq's share from the Euphrates might drop from 28 billion m^3 to 9 billion m^3, affecting agriculture and water quality. Turkey's use of turbines in dams can lead to water pollution, increased soil salinity, and affect the marshlands, impacting the livelihoods of rural populations, agriculture, and livestock, leading to droughts in the marshlands (Zahir, 2012, p. 377).

Iraq and Syria suffer from food insecurity due to drought and war conditions. On the other hand, Turkey benefited from its strategic geographical location on the banks of the river. In 2013, Iraq imported 25% from Turkey. Agricultural exports also doubled and Syrian demand for Turkish agricultural exports. Water scarcity plays an important role in Social and political instability. Before the civil war in 2011, Syria witnessed devastating droughts that caused massive urbanization, with more than 800,000 farmers losing their livelihoods. The current rate of urbanization in Syria and Iraq has led to the concentration of high demand for water in specific areas (Taylor , 2017, p. 24).

Therefore, water scarcity threatens the lives of many citizens, especially in rural areas. Managing water resources requires governance based on justice, transparency, accountability, and sustainable economic development. Effective water management demands cooperation among governments, communities, and the private sector to identify water needs and work together to enhance national technical and institutional capacities, increasing transparency and accountability. This is because water crises significantly affect health, education, poverty alleviation, environmental protection, food security, and energy security (Water Governance in the Arab Region: Managing Scarcity and Securing the Future, 2014, p. 16).

The scarcity of water they suffer from has resorted to compensating it by importing food. It is now assumed that the shortage has been compensated for by importing food. For example, producing a ton of wheat requires 1,160 m3 of water. In other words, it takes 40 litters of water to produce a slice of bread and 70 litters of water. of water to grow an apple. It can be said that all agricultural products have a “water footprint” (Lorenz & J. Erickson, 2013, p. 19).

Thirdly: Negotiations among the parties on the shared rivers (Tigris and Euphrates).

There have been various negotiations and treaties throughout history concerning the waters of the Tigris and Euphrates rivers shared by Turkey, Syria, and Iraq, in addition to talks among the three parties. Despite these discussions, there has been no near-agreement that includes the water share for each party or country, a situation that has been a source of tension in the relations between the parties (Abdul Hassan & Khudair, 2011, p. 142).

Before World War I, both Syria and Iraq were under Ottoman administration, but after the war, Syria came under French administration and Iraq under British administration. In 1920, the Treaty of Paris was signed between Turkey, France, and Britain, representing Iraq and Syria. This treaty agreed to form a joint committee among the three parties to conduct preliminary examinations before initiating any river project, and this agreement remained valid even after the independence of the two countries from the mandate (Majeed, 2023, p. 226).

In 1946, a Treaty of Friendship and Good Neighbourliness was signed between Iraq and Turkey to regulate relations between the two parties regarding water issues. The relations among the three parties concerning the water issue were somewhat calm and cooperative before 1960. However, after this date, the situation changed, alternating between cooperation and tensions, especially between Syria and Turkey when the latter began constructing a number of dams in the 1960s, such as the Revolution Dam on the Euphrates with a storage capacity of (13.2 billion m^3) , and the Ba'ath Dam on the Euphrates with a storage capacity of(9.14 billion m^3), among others On the Orontes River, its volume is(225m^3). The Qatina Dam on the Orontes River has a storage capacity of (200m^3), the Great Northern Dam has a storage capacity of(22 m^3), and the Mharda Dam has a storage capacity of (50 m^3). (Mustafa, 2001, p. 92)

Simultaneously, each party began filling the reservoir of its dam, such as the Keban Dam in Turkey and the Tabqa Dam in Syria. The situation became more complex and tense during the 1980s and 1990s, particularly during the Iraqi invasion of Kuwait in 1990, when Turkey, as the upstream country of the Euphrates, cut off its flow to Iraq for a full month (Water Governance in the Arab Region: Managing Scarcity and Securing the Future, 2014, p. 25).

In 1974, disputes arose between Iraq and Syria due to Syria's construction of water dams, particularly the Revolution Dam, which caused significant water level reductions in Iraq, affecting vast agricultural lands along this river. This led to the formation of a technical committee by the two countries, which included representatives from both sides. Iraq requested a halt to water storage and the smooth passage of water, which Syria rejected, proposing instead to split the water equally between the two countries (Abbas & Shalibta, 2006, p. 213).

Syria also suffered from Turkey's water policy, primarily relying on the Tigris and Euphrates rivers for its water. Surface water in Syria consists of river water and spring water, with river water volume being 4.24 billion m^3 and spring water 0.84 billion m^3, while groundwater amounts to 2.039 billion m^3, representing 19.7% of Syria's water resources (Mustafa, 2001, p. 91).

The construction of the Atatürk Dam by Turkey to exploit the Euphrates River and the consequent harm to the shared countries led them to cooperate with Turkey. This resulted in the formation of a joint technical committee (JTC) in 1983 to allocate water shares among the three parties. Due to the inability to reach a mutual agreement, these negotiations were suspended in 1993 (Müller, 2022, p. 25).

In 1987, an agreement was signed between Turkey and Syria when the President of Turkey visited Damascus, achieving security demands for Turkey in exchange for Syria receiving water supplies, in addition to closing PKK offices in Syria. To implement the agreement, a joint committee was formed, including Iraq, to explore water usage methods and provide recommendations to the three parties (awad, 1998, p. 80).

In 1987, a commitment was signed in particular between Syria and Turkey to control the flow of water of the Euphrates River, and in the early twentieth year, Syria expressed them in a special meeting, and the investigators of the Joint Technical Committee included the approach that emerged between Turkey in 2001, which emphasized the importance of sustainable use of water resources, but while Regarding Iraq after 2003, the American invasion of Iraq and what it went through during the period of a regime that led to improving relations between the two parties. If the Al-Furat Initiatives and the Celebrity Magazine were created in 2005 in order to continue the dialogue regarding water games for the borders and also multiplied to participate in 2008, however We did not reach what is happening (Water Governance in the Arab Region: Managing Scarcity and Securing the Future, 2014, p. 85). In 2009, memorandums of understanding between the three parties worked to improve the relationship between them, and Turkey signed four memorandums in order to reach the issue of water, as well as a number of dams (Müller, 2022, p. 26), and in 2011 during the civil war that occurred in Syria, it had an impact on relations. The partners in which its platform of action was not stable, and therefore it is an ally of the Syrian group and the Kurdistan Workers' Party, so it turned away from it, and the party that contracted with Turkey talks with it, and it is close to Syria in 1998, in which it agreed to fight the Kurdistan Workers' Party.

Water supply service in Syria declined by 70% between 2011 and 2013 due to conflict and civil war. A decline in water supply is usually accompanied by a decline in water quality. Water-borne diseases in poor quality water cause increases in deaths (E. Mard, 2018, p. 26).

Therefore, the drought that they suffered from is one of the most important causes of the conflict and the subsequent internal displacement and migration within Syria since 2011. In addition to the mismanagement of natural resources over long periods of time in Syria, which led to an increase in poverty, corruption, the gap between rural and urban areas, and unemployment, in addition to a decrease in In the country (E. Mard, 2018, p. 22).

In light of this war, bilateral political relations deteriorated, and the strength of the technical and diplomatic will to negotiate a temporary protection mechanism disappeared, and with the reduction of tripartite cooperation to the absolute minimum, the water inside Syria deteriorated in quality and quantity. On the other hand, Turkey proposed to Syria and Iraq a tripartite plan called the Three-Phase Plan for optimal, equitable and reasonable use. For transboundary watercourses in the Tigris and Euphrates Basin, this plan begins with inventory studies of water resources, followed by an inventory of land resources, and ends with an integrated assessment of the interaction between land and water. It relies heavily on studies, data exchange and verification, and examines and evaluates the total water needs of each country by weighing evaporation losses from reservoirs and seepage. From irrigation systems, industrial water supplies, soil conditions for planned projects, cropping patterns, and drainage rates, while both Syria and Iraq undoubtedly rejected this plan because sharing data on their dilapidated water infrastructure would reveal the exaggerated demand for water and its projects. Turkey calls for "fair, rational and optimal use." Water, claiming that this can only be achieved through "a scientific study that determines the real water needs of each riparian state" (Taylor , 2017, p. 21)

Mechanisms for discussing and negotiating regional water management in the Tigris and Euphrates Basin have been in place in various forms since the end of World War II, but they have not been effective in facilitating a formal water-sharing agreement. Negotiations have resulted in limited bilateral agreements between Turkey and Syria and Syria and Iraq, with no tripartite agreements. It deals with the equitable distribution of water to achieve a balance between the resources and water needs of the basin. The only official water agreement between Turkey and Iraq is the Treaty of Friendship and Good Neighbourhood of 1946, which provided an opportunity to study and discuss water management before the existence of any large dams. Under the treaty, Turkey agreed to monitor and exchange data on the flow of the two rivers with Iraq. It was agreed Both countries stressed that control of the rivers depends largely on actions taken by Turkey upstream, but the treaty also called for separate consultations (Richard Hansen , 2012, p. 8).

In October 2017, Iraqi Prime Minister Haider al-Abadi met with Turkish President Recep Tayyip Erdogan, and bilateral talks were held. The Turkish President expressed readiness to construct a joint dam with Iraq (Tutunji, 2017, p. 9). Turkey and Iraq share several common aspects, including economic and trade relations that have evolved during and after the Iran-Iraq War, making Iraq a transit route for Turkish goods and a significant importer. However, tensions related to the Kurdish issue exist between the two countries (Radwan, 2006, p. 192). Regarding water resources, there is an increasing demand met with a shortage of available resources, significantly affecting Iraq in various aspects previously discussed. Therefore, the Iraqi government has sought talks and negotiations with the Turkish side to reach an agreement on water issues (Hussein & Mahdi, 2018, p. 214).

Conclusions:

The research has led to the following conclusions:

1. Water security is closely linked to food security. The conditions faced by both Iraq and Syria due to Turkey's construction of water projects on the rivers have negatively impacted their water security, thereby affecting their food security.
2. Water constitutes a part of a country's strength and is one of the primary reasons Turkey has sought to control the rivers to build a regional role, aiming to become a competitive regional power in the Middle East. Thus, Turkey has gathered its sources of power, with water being one of the natural resources it possesses.
3. Turkey's water policy focused on constructing dams and water projects to support its economy and trade by exploiting water to expand agricultural land, in addition to increasing electric and hydroelectric power stations, and considering the rivers as a commercial hub for transporting goods and commodities.

4. Turkey considers that the Tigris and Euphrates rivers are not international, but rather cross-border rivers, meaning that it considers them part of its sovereignty. Therefore, it may apply local laws and national standards to them instead of the rules of international law for international rivers.
5. Turkey used water as a weapon to pressure both parties to accept its proposals, as evidenced by cutting off water to Syria for a full month in 1991.
6. Iraq and Syria rely on the river waters as their sole water source due to the scarcity of snow and rain, in addition to the climatic changes they experience throughout the year, including rising temperatures and global warming.
7. The scarcity of water in Iraq and Syria in the Tigris and Euphrates river basin has a major impact on the relations between them and Turkey.
8. The reduction in water levels affected both Syria and Iraq, leading to a decrease in agricultural lands and exposure to desertification and drying up of marshes, in addition to impacting the country's economy, environmental, social, and political aspects as well.
9. Although the water issue dates back to the 1970s, the parties have not reached an agreement despite several negotiations, which failed to determine each party's share of the river waters.

Recommendations:

1. On a domestic level, both Iraq and Syria must achieve water security as it is intertwined with food security and sustainable development. Therefore, it is imperative to devise an organized strategy for managing water resources effectively.
2. Reaching an impartial agreement among the parties that encompasses each party's issues and proposed solutions, and that specifies the proportions and shares for each party to meet their needs for agriculture, drinking water, industry, and other uses.
3. The topic of water should be a focus of interest for scholars and specialized researchers to investigate the relationship of water with other aspects and to provide a comprehensive study on each party's water needs, the challenges they face, and the proposed solutions.
4. Establishing a committee among the three parties to conduct a detailed study on each party's share and water needs for various purposes. This committee should also determine the quantity and quality of water reaching them, ensuring all their water resource requirements are met.

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