

Research Article

Water Diplomacy and Non-Traditional Security: Iraq's Efforts to Overcomes the Water Crisis

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Abstract

The water scarcity crisis in Iraq has become a non-traditional security issue that threatens the country's social, political and economic stability. According to international data, water scarcity is predicted to worsen by 2030, affecting more than 700 million people worldwide. Iraq, which depends on the flow of the Tigris and Euphrates rivers, is experiencing a decline in water quality and quantity that is worsening agricultural conditions, increasing social tensions and causing internal migration. This article analyzes the Iraqi government's efforts to address the water crisis through diplomacy by joining the Paris Agreement and the UN Water Convention, as well as organizing the Baghdad International Water Conference. This research uses a descriptive qualitative approach to explore the impact of water scarcity in Iraq and the diplomatic responses undertaken for mitigation. Although formal diplomacy has resulted in international aid and mitigation projects, climate change impacts and domestic governance issues, such as corruption, hamper the effectiveness of such efforts. This article also suggests the need for non-formal diplomacy involving non-state actors to improve the effectiveness of solving the water crisis in Iraq.

Keywords: Water Crisis, Iraq, Diplomacy, Water Diplomacy

INTRODUCTION

The water scarcity crisis is one of the most pressing issues in international relations. Water has become a critical non-traditional security concern, affecting numerous countries worldwide. According to UN data from 2018, around 40% of the global population is impacted by water scarcity. By 2030, it is estimated that 700 million people could face displacement, while 2 billion individuals may consume unsafe drinking water due to inadequate water supply. Furthermore, by 2050, up to 5 billion people could lack sufficient access to clean and safe water. This growing crisis has significant geopolitical implications, influencing stability, cooperation, and conflict in regions where water scarcity exacerbates existing tensions over resources. As such, addressing water scarcity has become a critical priority in international diplomacy and cooperation (Farge, 2021).

Countries in the Middle East are facing a severe water scarcity crisis, with water productivity in the region averaging only about half of the global level (World Bank, 2018). This water crisis began with the water conflict in the Euphrates and Tigris Rivers which has a long and complex history involving Iraq, Turkey, Syria and Iran. The existence of

the Euphrates and Tigris rivers is a problem because these rivers are strategic and can be used for water, agriculture and energy. The roots of this conflict began in the 1920s after the collapse of the Ottoman Empire.

The countries of Iraq, Turkey and Syria began to manage their water resources. The first formal agreement was signed in 1926, the agreement aimed to encourage cooperation between Turkey and Iraq in managing the Euphrates River. However, Turkey violated the agreement, causing tensions between the two countries. In 1946, an agreement was made again between Iraqi King Faisal II and Turkish President Ismet Inonu, this agreement aimed to strengthen relations in water management. However, Turkey violated the agreement again, causing tensions again. In the 1960s and 1970s, Turkey made a large hydroelectric power project known as the GAP (Southeastern Anatolia Project) involving 22 dams.

The project became a source of tension because it was a direct threat by Iraq and Syria and eventually led to a conflict over water rights. Turkish control of the river's headwaters could affect the water supply upstream. Iraq and Syria had been negotiating in the 1970s. Tensions worsened in the 1980s and 1990s as Turkey expanded its dam project, raising concerns among other countries that Turkey would use the water as a political tool. Iraq, heavily reliant on the Tigris and Euphrates Rivers, is particularly vulnerable due to declining water quality and quantity. This crisis has far-reaching impacts, including jeopardizing agricultural production, threatening food security, and intensifying social and political tensions within the country. As a downstream nation, Iraq faces significant challenges from the actions of upstream countries like Turkey and Iran, which have constructed large-scale dams on these critical rivers. These infrastructure projects have further reduced water flow to Iraq, exacerbating its water crisis. Without cooperative agreements or effective regional water management strategies, Iraq's dependence on these transboundary rivers places its population and economy at considerable risk (Al-Ansari & Adamo, 2018).

The problem of water scarcity in Iraq has caused instability in the distribution of water resources. This has triggered tensions in the community and led to various social problems, such as inter-tribal conflicts, clashes between the community and the government, and other problems. In March 2023, clashes broke out between security forces and protesters in Dhi Qar Province, Southern Iraq. The government is considered to have failed in governance, especially regarding water distribution policies (Hall & Harper, 2023). Water scarcity also triggered tense relations between local governments. The provincial governments of Maysan and Muthanna claimed that the water scarcity in their areas was caused by the policies of the provincial governments in the northern region that took more water than they should (Al-Aloosy, 2021). Water scarcity in Iraq has also led to the cessation of most agricultural activities, resulting in the absence of food production in some areas. This has led to an increase in population displacement in Iraq. In addition, water scarcity worsens public health conditions (International Organization for Migration, 2023).

These conditions are conducive to protracted displacement and have complex effects. In addition to the impacts mentioned above, water scarcity in Iraq has also led to chronic air pollution, which has adversely affected public health. Basically, water scarcity has many consequences in terms of economic, agricultural, food, health, environmental, social and quality of life issues. However, this problem cannot be avoided by Iraq because geographically, vulnerability to climate change is characteristic of the Middle East and North Africa. The semi-arid and arid nature of the region triggers droughts and extreme heat waves. However, a bigger reason for the climate situation in the Middle East is its unique history of colonization, international intervention, and poor domestic governance. Talking about water scarcity is not just about the environment; it is influenced by economic, social, and political contexts.

Climate change is inextricably linked to the problems of an oil-dependent economy; if it has poor governance, this has environmental consequences. Other impacts can lead to social crises, so Iraq's politics must be able to ensure an internal state that is able to prioritize a green economy. According to several studies by the European Union Institute for Security Studies, Iraq is heating up twice as fast as the global average. Exposure to increasingly intense heat will be disproportionately risky because human body temperature will be irregular. This creates vulnerability to health problems, especially for children and infants. In addition, Iraq is not prepared internally to deal with this problem, such as infrastructure, which is still classified as outdated and will not be able to withstand climate change, causing a lot of damage. Not to mention the problem of unclear irrigation, technical things like this are difficult to overcome climate problems because they are not prepared as well as possible.

Water scarcity in Iraq is significantly influenced by poor water resource management. In Basra, for instance, severe shortages stem from ineffective policies and inadequate infrastructure. Both local and federal governments have failed to enforce regulations, such as restrictions on waste discharge into public waterways, resulting in contamination from human, animal, industrial, and agricultural waste. Existing water treatment facilities are insufficient and often fail to treat water effectively or add adequate chlorine to ensure a safe supply. The private sector, which provides clean water services, operates with minimal oversight, leading to numerous facilities that fail to meet required standards. Illegal water tapping and damage to pipeline networks remain unresolved, further exacerbating waste and contamination. Corruption, ineffective policies, and the failure to adopt modern water treatment technologies contribute significantly to the crisis. These shortcomings highlight a systemic failure in addressing Basra's water scarcity. Without urgent reforms to improve infrastructure, enforce regulations, and adopt advanced technologies, the situation will continue to deteriorate. Addressing these issues requires coordinated efforts from government authorities, private sectors, and international stakeholders to ensure a sustainable water supply for the region's population. (Human Rights Watch, 2019).

In addition, the customs and way of life of the Iraqi people also play a role in water scarcity crisis. Many Iraqis, especially in rural areas, rely on agriculture as their primary source of income. Irrigation practices often lead to wastage of water and increase soil

salinity, exacerbating the problem of water scarcity. This reliance on inefficient farming methods further exacerbates situation the. With the worst scarcity and deterioration of water quality, many rural populations migrate to large cities in search of a better life, leading to urbanization and increasing pressure on water resources in urban areas. Water also has an important meaning in Iraqi culture and religion, where religious practices and traditions often involve the use of water, providing a complex social and spiritual dimension to water resource management (Yousif et al., 2023). Therefore, diplomacy become Wrong One solution Which taken by the government Iraq in face problem This. Study This aiming for examines the diplomatic practices that have been carried out by the Iraqi government in its efforts to overcome the water scarcity crisis.

Several studies have discussed the issue of water scarcity in Iraq. One such study is titled "Present Water Crisis in Iraq and Its Human and Environmental Implications" (Al-Ansari & Adam, 2018). However, these previous studies exhibit some gaps, as they only provide a general explanation of certain indicators causing water scarcity in Iraq. Notably, they do not specifically focus on Iraq's diplomatic efforts to address the issue. Similar research was conducted by Ali Al-Bayaa and Mostafa Mashhad, experienced researchers specializing in Middle Eastern issues, particularly human security in Iraq. Their study, "Water Scarcity and Environmental Peacebuilding: A Lens on Southern Iraq" (Al-Bayaa & Mashhad, 2023), explores the dynamics of water scarcity in Iraq and its impact on human security.

However, it does not include a detailed analysis of Iraq's efforts to resolve the issue through diplomacy. Additionally, the research by Ala H. Elaiwi, Karima Hasan, and Mufid Al-Hadithi, titled "Management of Natural Iraqi Water Resources: Aims and Challenges" (Elaiwi et al., 2020), exhibits a similar limitation. While it examines the causes of the water scarcity crisis and the provincial government's initiatives to improve water distribution governance, it lacks a specific focus on the Iraqi government's diplomatic strategies to address the water crisis.

The previous studies mentioned above have indeed examined the dynamics of the water scarcity crisis in Iraq. However, a crucial aspect of Iraq's diplomatic efforts to address the issue of water scarcity remains underexplored. This gap is both significant and warrants further investigation. Therefore, this study aims to complement and bridge the gaps in previous research. This study seeks to answer the research question: How have Iraq's diplomatic efforts responded to or addressed the water scarcity crisis? It is expected to contribute academically to the field water diplomacy studies.

METHOD AND THEORY

The method used in this study is qualitative descriptive. According to Creswell, qualitative research is a method to understand the meanings individuals or groups assign to a social or human problem. This approach involves collecting data in a natural environment, analyzing it inductively, and identifying patterns or themes emerging from the data (Creswell & J. David, 2018). Similarly, Bogdan and Biklen (2007) describe qualitative research as an approach that prioritizes process, meaning, and understanding

over numerical or statistical results. This study is descriptive and interpretive in nature, with primary data consisting of words or images rather than numbers. Using this approach, the researcher serves as the primary instrument for data collection and analysis. The main objective of qualitative research is to understand phenomena from the perspectives of the individuals involved, employing flexible methods and emphasizing in-depth exploration (Bogdan & Biklen, 2007). The data used in this study obtained from articles, books, websites, journals, scientific works, and other internet-based sources relevant to the research. The author conducts literature searches online by reviewing various sources.

The concepts used are the concepts of Non-Traditional Security, Diplomacy, and Water Diplomacy. Non-Traditional Security is used to explain the impacts caused by water scarcity in Iraq so that cause loss in a number of sectors, while water diplomacy is also used to describe diplomatic efforts Which carried out by the Iraqi government in overcoming problem of water scarcity. Non-Traditional security arises from non-military sources. This concept includes a variety of non-military threats and challenges to the security stability of states and the international community. These non-traditional security issues are often transnational in nature and can have a significant impact on the security and well-being of individuals, communities and nations. Some examples of non-traditional security include Environmental Security, Economic Security, Food Security, Health Security, Human Security, Energy Security, Migration and Refugee Issues, Terrorism and Crime Transnational, Water Security (Caballero, 2016).

In their work "A Dictionary of Diplomacy", Berridge and James define diplomacy as the art and practice of facilitating relations between nations. Diplomacy involves implementing diplomatic skills and negotiation techniques to achieve mutually beneficial outcomes for the parties involved. It encompasses various aspects, including peacekeeping, conflict resolution, fostering trade and investment, and promoting international cooperation in sectors such as the environment, health, and security (Berridge & James, 2003). Berridge explains that diplomacy is not limited to formal negotiations between governments but also includes broader forms of communication and interaction, such as public diplomacy, cultural diplomacy, and economic diplomacy. This process utilizes various instruments of power, including military, economic, and political tools, as well as the ability to shape public perception and opinion. Moreover, Berridge emphasizes the critical role of diplomacy in preventing conflicts, fostering peace, and building collaborative relationships between nations. Effective diplomacy requires strategic communication, skilled negotiation, and mutual understanding between international actors. In summary, Berridge highlights the central role of diplomacy as a tool for achieving political, economic, and security objectives through communication, negotiation, and interaction among global stakeholders, ensuring stability and mutual benefit in the international system (Berridge, 2022).

According to Anderson, diplomacy is a process involving negotiation, bargaining, and communication between nations to reach agreements or resolve disputes. This process includes the exchange of information, assessment of shared interests, and, in some cases, the application of pressure or threats to achieve specific objectives. In this perspective,

diplomacy serves as a mechanism of interaction between states aimed at addressing issues through negotiation and dialogue, while considering the mutual interests that underpin their relationships. Anderson further explains that diplomacy is not limited to formal negotiations between high-level officials; it also encompasses informal discussions, mediation efforts, and the establishment of long-term relationships to foster trust and cooperation.

Diplomacy involves both bilateral and multilateral engagements, reflecting its adaptability to different international contexts. Moreover, diplomacy often plays a vital role in managing crises, building alliances, and advancing policy agendas on global issues such as trade, climate change, and human rights. The process relies on a combination of persuasive communication, strategic planning, and cultural understanding to bridge differences and achieve common goals. In essence, Anderson emphasizes that diplomacy is a dynamic tool for navigating the complexities of international relations, balancing national interests with the pursuit of global stability and cooperation (Anderson, 1993).

Water diplomacy is a concept that focuses on the management of shared water resources across geopolitical boundaries, with the objective of preventing conflicts and promoting cooperation between countries, especially in the context of increasing water scarcity due to climate change and population growth. One of the key assumptions of water diplomacy is that water is a shared resource that does not recognize national boundaries. Therefore, effective cooperation between countries is essential to ensure equitable access and sustainable use of transboundary water resources. In addition, proactive engagement and dialogue between nations play a crucial role in preventing conflicts related to water resources. Through collaboration, potential disputes can be addressed before they escalate into more serious conflicts.

The complexity of water management issues, influenced by social, economic, and environmental factors, also requires a multifaceted approach. This approach incorporates various theories, such as complexity and negotiation theory, to better understand and address the challenges posed by water scarcity. Furthermore, water diplomacy emphasizes the importance of engaging multiple stakeholders, including governments, local communities, and non-governmental organizations (NGOs). The participation of diverse actors ensures that a wide range of perspectives and interests are considered. It leads to more comprehensive and sustainable solutions to water management challenges (K. Gain, 2024).

RESULT AND ANALYSIS

Dynamics of the Water Crises in Iraq

Water scarcity in Iraq is a serious problem caused by several interrelated factors, such as geographic location, climate change, water projects in neighboring countries, and poor management. Iraq, with an area of 437,072 km² and a population of over 40 million people, is heavily dependent on the Tigris and Euphrates rivers as its main water sources. However, climate change has led to decreased rainfall and increased temperatures, exacerbating the water crisis. In addition, water projects in neighboring countries that share these two rivers often prioritize their own needs, reducing the flow of water to Iraq.

Domestically, inefficient water management, such as poor distribution and outdated agricultural practices, also contributes to significant water waste. The World Bank estimates that Iraq's increasing water demand will reach 10.9 billion cubic meters by 2035 (World Bank, 2022). Furthermore, the country's agricultural sector, which consumes approximately 85% of Iraq's water resources, uses inefficient irrigation methods that lead to further water loss. Dams built upstream by neighboring countries have also reduced the availability of water for Iraq, exacerbating conflicts over water resources. The lack of investment in modern water management infrastructure, coupled with corruption and ineffective governance, further worsens the situation. Addressing Iraq's water scarcity requires comprehensive regional cooperation and the implementation of sustainable water management practices.

The impact of water scarcity in Iraq goes beyond the issue of resource availability, extending into other vital sectors such as agriculture, which is the foundation of rural community life. In Iraq, the water crisis has led to food shortages, particularly in southern Iraq, due to declining water availability, which directly affects agricultural productivity. This sector is crucial for the public economy in rural areas, where most people depend on farming. However, water shortages have rendered farming operations unproductive, leading to drastic reductions in crop yields compared to previous years.

According to the International Organization for Migration (IOM) in 2022, around 86% of households engaged in agriculture reported declining harvest outcomes compared to five years earlier. Consequently, many people have abandoned agriculture as their primary livelihood. In 2022, only about 22% of households in rural southern Iraq remained involved in agriculture, a significant decrease from five years prior when approximately 34% of the population relied on the sector (IOM Iraq, 2022). This decline not only worsens food security but also exacerbates poverty and unemployment in already vulnerable rural communities.

Furthermore, the losses in the agricultural sector have worsened food security for the population, as evidenced by high crop failure rates and rising food prices. According to the Norwegian Refugee Council (NRC), the water crisis has caused crop failures across nearly all of Iraq. Approximately 37% of farmers reported wheat crop failures, while 30% of farmers experienced barley crop failures. This situation has led to a significant increase in food prices, impacting the ability of most people to afford necessities. In a survey conducted by NRC, 56% of respondents reported that both the quality and quantity of food they purchase have been negatively affected by rising food prices. In fact, about one-fifth of households admitted to not having enough food to meet the needs of all family members (Norwegian Refugee Council, 2021). These findings align with statements from Iraq's President, Abdul Latif Jamal Rashid, who has warned that water scarcity threatens food security and could potentially trigger further major crises (Prasetyo, 2023).

As a result, the impact of water scarcity not only affects food security but also triggers the movement of people from rural areas to other areas in search of a better life. The water crisis in Iraq has caused massive population displacement, especially among farmers in rural areas who are looking for opportunity better life elsewhere. According to

the data from Ministry Migration and Transfer Iraq in 2022, population displacement in Iraq shows an increasing trend. In 2022, more than 7,000 farmers left rural areas due to water scarcity (Lukas, 2023). In Southern Iraq, precisely in Missan, a number of families living in 13 villages decided to evacuate due to difficulties in accessing water for daily needs (International Organization for Migration, 2023). A similar phenomenon also occurred in the Ramadi region, Iraq, where the Habbaniyah lake, which is their main source of life, is shrinking rapidly. Around 13,000 residents in the area want to evacuate, but due to limited facilities there, they are forced to survive in increasingly drier areas (Travers & Zeyad, 2023).

In addition to population displacement, limited access to clean water also poses a serious threat to public health, with an increase in various diseases caused by contaminated water. The limited amount of clean water for consumption results in increasingly poor water quality and is unsafe to drink. In addition, wastewater flowing into rivers causes water pollution and triggers the emergence of various diseases, such as hepatitis, cancer, as well as plague disease Which transmitted through water, like cholera (Al-Bayaa & Mashhad, 2023). Since 2011, about 20% of the total population of Iraq has not had access to safe drinking water for consumption (Zolnikov, 2013). This condition make public Which No own access the very prone to to various disease. In 2018, in the city of Basra, over two weeks, around 17,500 cases were recorded stomachache due to consuming contaminated water (Yeranian, 2018). It also creates increasing social tensions between community groups and local authorities. In some areas, dominant and powerful tribal leaders, together with residents, often take illegal actions when they feel that water supplies are decreasing. These actions include digging ditches and making wells without permission to secure their own water supplies, without considering the needs of other communities. In 2017, a number of tribes in the southern part of the Al-Muthanna region, Iraq, even threatened to launch a war against other tribes who were considered to be taking water excessively (Hall & Harper, 2023).

In addition, conflicts also occur between community groups that depend on water resources for their livelihoods, such as farmers, herders, and fishermen. For example, in Basra, Iraq, the migration of herders to more fertile areas with better water supplies water Which more good trigger dispute. Several herders reported that their livestock were shot by local community members over water resources (Birkman et al., 2022). These tensions have even spread to include political conflicts between the government and the community, reflecting the failure of water resource governance in Iraq. Conflicts over water scarcity also occur between provincial authorities in Iraq, who accuse each other of taking water beyond the established limits. These conflicts often appear in the form of political disputes and legal complaints.

In addition, confrontations also occur between the federal government, provincial governments and citizens, which are usually expressed through protests. For example, in 2019, large-scale protests took place in Basra, Missan and Dhi Qar. These protests were dominated by young people, especially students who were involved in various forms of action, such as strikes. mass, action Sit down, demonstration in room public, until destruction of official buildings (Birkman et al., 2022). The most recent case occurred in

2023 in Southern Iraq, where clashes between security forces and protesters in Dhi Qar Province erupted as a result of water scarcity. This conflict reflects the government's failure to order management of distribution and regulation related water sources (Hall & Harper, 2023).

By 2022, approximately 39% of Iraq's arable land will be desertified. This results in reduced river flows, which is also a sign of diminishing water reserves. The Tigris and Euphrates rivers are a source of disaster where they are vulnerable to the effects of climate change (Birkman et al., 2022). In fact, this problem has been accumulating for years, and Iraq will be positioned as a country vulnerable to climate change. However, as we explained earlier, politics, economics, and social issues influence how water scarcity occurs and how it is addressed. The Iraqi government is aware of this, but its poor economic practices have had a negative impact on governance, which is inconsistent with the impacts of climate change.

In addition, Iraq's political situation is highly unstable and fraught with protracted conflict, increased corruption and economic crime, all of which pose environmental risks. To overcome the problem of water scarcity, talking diplomacy is not enough, it must be from within the government to play a role in improving government governance, especially in economic practices that must consider the environment, socially must promote morality that not only thinks about political interests, but society as a whole. Also, how to create good mitigation to overcome the effects of climate change.

Diplomacy to Solve the Water Crisis

In addressing the water scarcity crisis, the Iraqi government took a strategic step by formally joining the Paris Agreement on December 1, 2021. The Paris Agreement, adopted on December 12, 2015, in Paris, France, aims to limit global temperature increases to below 2°C and, if possible, to 1.5°C. By joining this agreement, Iraq demonstrates its commitment to global efforts to mitigate climate change and adapt to its impacts, particularly the water crisis that has plagued the country. This diplomatic move highlights Iraq's recognition of the urgent need to address water scarcity and its willingness to collaborate on international initiatives aimed at promoting sustainability and resilience. The country's participation signals its dedication to reducing greenhouse gas emissions and implementing strategies that enhance water management and security, ensuring long-term stability in the face of climate challenges (UN Climate Change, 2020).

As part of the Paris Agreement, Iraq has committed to reducing greenhouse gas emissions, transitioning to a green economy, and attracting investment opportunities of USD 100 billion in the green economy sector over the next ten years. Additionally, Iraq has integrated the principles of sustainable development by ensuring transparency and integrity in the environmental sector. These efforts are further supported by the launch of the Nationally Determined Contribution (NDC), which represents Iraq's national vision for addressing climate change—one of the primary drivers of water scarcity. By aligning its policies with the NDC, Iraq aims to mitigate the impacts of climate change, promote

sustainable water resource management, and build resilience to the ongoing water crisis (UNDP, 2022).

This diplomatic step received a positive response from the international community, particularly from European countries. Financial support was provided through funding of USD 6.8 million from Canada and the UK for the Catalytic Climate Action project in Iraq, spanning from January 2022 to March 2024. This funding aimed to strengthen Iraq's capacity in transboundary water diplomacy, enhance drought risk preparedness, and facilitate the energy transition (UNDP, 2022). Through this project, regional monitoring of river flows was conducted using web-based tools and Geographic Information Systems (GIS), enabling data-driven decision-making for water resource management. Additionally, the project supported the development of adaptation strategies to address water scarcity and climate change at the local level. An integrated water management approach was implemented, utilizing modern tools and guidelines to ensure the optimal provision of water, maintaining water quality, and ensuring equitable access. These efforts are expected to contribute to long-term water sustainability in Iraq while fostering regional cooperation on transboundary water challenges (Lootsma, 2023).

In March 2023, Iraq officially joined the UN Water Convention, a legal international framework designed to protect and manage transboundary water flows and international lakes. This step aims to ensure the sustainable management of water resources by facilitating cooperation between countries (UNECE, 2023). The signing of the agreement was carried out at a special event during the UN Water Conference (United Nations, 2023). This step is highly relevant given that many countries in the Middle East, including Iraq, heavily rely on the flow of the Euphrates and Tigris rivers. The Euphrates, the longest river in Southwest Asia, originates in Turkey and flows southwards towards Syria before reaching Iraq. Its catchment area spans five countries— Iraq (47%), Turkey (47%), Syria (28%), Saudi Arabia (2.97%), and Jordan (0.03%) (Al-Ansari et al., 2018). In the southern region of Iraq, the Euphrates River joins the Tigris River, which is also one of the longest rivers in West Asia. The Tigris River catchment area is spread across Turkey (24.5%), Syria (0.4%), Iran (19%), and Iraq (56.1%) (Al-Ansari & Adamo, 2018). The dependence on these two rivers highlights the importance of cross-border cooperation to manage limited water resources effectively.

The Euphrates and Tigris rivers are the main sources of life for the populations in the regions they flow through, including 43.5 million Iraqis, 88 million Iranians, 21 million Syrians, and 85 million Turks (UNECE, 2023). However, the high dependence on these two rivers has triggered competition among countries to secure adequate water supplies. Iraq, which is drained by both rivers, was initially considered to have sufficient water supplies. However, the hydrological development projects carried out by Turkey, Syria, and Iran on the upper reaches of these two rivers have had a significant impact on both the volume and quality of water reaching Iraqi territory. These projects, including the construction of dams and the use of water for irrigation, have reduced the flow of water to Iraq and caused degradation of water quality due to irrigation waste. As a result, Iraq faces serious challenges in managing its water resources, including the risk of worsening water scarcity (Al-Ansari & Adamo, 2018).

Figure 1. Flow river Tiger and Euphrates



Source: Encyclopedia Britannica, Inc.

Iraq's diplomatic steps to join the UN Water Convention provide a strategic opportunity to enhance cooperation in transboundary water resources management. With the convention having been signed by 153 countries, Iraq can leverage the joint agreement on water management as a key issue in the global sustainable development agenda (UNECE, 2023b). Additionally, participation in the UN Water Convention creates significant momentum for Iraq to present its national strategy to address the water scarcity crisis. This opens opportunities for Iraq to gain both regional and international support, strengthening its capacity to manage water resources sustainably and address the challenges posed by climate change. By collaborating with other member states, Iraq can advocate for equitable access to water and seek technical and financial assistance to improve infrastructure and adaptive strategies. The convention provides a platform to foster dialogue and build partnerships, essential for securing long-term sustainable water governance, especially in the face of increasing water scarcity (Lootsma, 2023).

Iraq's decision to join the UN Water Convention sends a positive signal to the international community and investors while strengthening its diplomatic position on water resources management issues. The UN Water Convention provides a comprehensive framework for member states to prevent, control, and mitigate negative impacts on the quality and quantity of transboundary water. Additionally, the convention emphasizes the importance of equitable and sustainable use of water resources, encouraging cooperation through agreements and the establishment of specialized institutions among states sharing transboundary waters (United Nations, 2023). Iraq's participation in this convention is a strategic diplomatic move aimed at securing support from other member states with similar interests.

The UN Water Convention also offers a platform for countries involved in water-related conflicts to establish cooperation and resolve issues diplomatically. Through this participation, Iraq not only strengthens its efforts in managing water resources sustainably but also paves the way for broader international collaboration in addressing

the challenges posed by water scarcity. Joining the UN Water Convention enhances Iraq's ability to address water-related challenges, particularly transboundary concerns with neighboring countries, while fostering long-term solutions through coordinated efforts (UNECE, 2023b).

In addition, the holding of the Baghdad International Water Conference since 2021 is part of the Iraqi government's diplomatic efforts in responding to the water scarcity crisis. This annual conference was initiated by the Ministry of Water Resources and the Dams and Water Resources Authority, with the strategic objective of identifying solutions and alternatives to mitigate the impacts of climate change and global warming. The conference also focused on preserving wetlands and marshes to maintain ecosystems and biodiversity, increasing education and awareness among water users and stakeholders to use water wisely, as well as minimizing water management losses.

Furthermore, the forum seeks to activate regional and global cooperation through integrated water resources management, risk analysis, data and experience sharing, capacity building, and encouraging investment and financing in related sectors (Baghdad-IWC, 2023). With this approach, Iraq positions itself as an important actor in water diplomacy, while strengthening international cooperation to address the challenges posed by the water crisis and climate change. The conference provides a platform for discussions on transboundary water governance, encouraging countries to collaborate on issues such as drought risk reduction, irrigation efficiency, and sustainable agricultural practices. Iraq has emphasized the role of science and technology in improving water management, fostering partnerships with research institutions and international organizations. By promoting dialogue and cooperation, Iraq aims to enhance its water diplomacy efforts, ensuring equitable and sustainable access to water resources. These initiatives contribute to Iraq's broader objective of securing long-term water stability, which is crucial for addressing both the immediate challenges posed by climate change and the future needs of its growing population.

In May 2023, Iraq hosted the third international conference on water issues in Baghdad, with the main theme of *"Water Scarcity, the Mesopotamian Marshes, Shatt al-Arab Environment, Everyone's Responsibility."* This conference brought together officials and experts from various countries to discuss the threats posed by drought, worsening water scarcity, the impact of climate change, and strategic efforts to address these environmental challenges. Through this forum, Iraq aims to leverage diplomacy to find solutions to reduce the impacts of climate change and global warming, particularly in relation to the water scarcity crisis. Additionally, Iraq emphasized the importance of the sustainability of the Mesopotamian marshes as a strategic step in preserving ecosystems and biodiversity. This conference is expected to produce effective water resource management policies that not only ensure the availability of clean water for communities but also contribute to the recovery of the country's economic conditions (Rudaw, 2023). By fostering regional and international cooperation, Iraq seeks to strengthen its role in water diplomacy and address the interconnected challenges of climate change, water scarcity, and sustainable development. The conference also aims to encourage investment in water

management and infrastructure, particularly in preserving critical wetlands and improving agricultural water use efficiency, thus promoting long-term sustainability.

Iraq also pursued diplomacy through mediation and negotiation with Turkey regarding the management of transboundary water resources. This effort began with the establishment of the Joint Economic Commission protocol framework in 1980, which provided for the creation of a joint committee to negotiate the management of the Tigris and Euphrates River basins. The committee held 16 sessions between 1982 and 1992 before ultimately halting due to the Gulf War (Sabah, 2018). Furthermore, between 1984 and 2009, Iraq, Turkey, and Syria were involved in trilateral negotiations on the management of cross-border waters. One key initiative proposed by Turkey in 1984 was a three-stage plan for the optimal, fair, and reasonable utilization of the Euphrates-Tigris waters. However, this plan was rejected by Syria due to differences in approach regarding the classification of river basins. Turkey views the Euphrates-Tigris basin as a single system, while Syria and Iraq prefer to treat the basin as two separate areas. This difference in perspective continues to be a key issue in the ongoing negotiations between the three countries.

After various bilateral and trilateral meetings, in 2009, Turkey signed a memorandum of understanding with Iraq and Syria focusing on water resource monitoring, the implementation of joint projects, and protocols for addressing the impacts of climate change. As part of the agreement, Turkey agreed to provide a water flow of 500 cubic meters per second to Syria and Iraq (Sabah, 2018). On August 30, 2023, Iraqi President Abdul Latif Rashid held talks with Veysel Eroğlu, the Turkish president's special representative for water affairs, in Baghdad. The meeting aimed to resolve a dispute over water sharing, with the Iraqi president advocating for increased cooperation with Turkey on water issues.

The discussions involved a delegation from Turkey, consisting of experts in water, dams, irrigation, agriculture, energy, and the environment, along with Iraqi officials such as the Minister of Water Resources, Aoun Diab Abdullah, and the Minister of Environment, Nizar Mohammed Saeed Amedi (Mahmoud, 2023). The multilateral dialogues and negotiations involving Iraq, Syria, and Turkey highlight the practice of water diplomacy, where the central issue is the management of transboundary water resources. These negotiations have succeeded in producing agreements and memorandums of understanding related to water resource monitoring, joint project implementation, and collective efforts to address climate change. Dialogue, negotiation, and the reconciliation of interests among these riparian states are integral components of water diplomacy (Hefny, 2017).

Furthermore, Iraq also pursued diplomacy through a joint statement issued at the US-Iraq Higher Coordinating Committee (HCC) meeting, based on the Strategic Framework Agreement for Friendship and Mutual Work between the two countries. At a meeting held on February 15, 2023, Iraqi Deputy Prime Minister and Foreign Minister Fuad Hussein and US Secretary of State Antony Blinken led the HCC to discuss various strategic issues (US Department of State, 2023). Both sides affirmed their commitment to

strengthening strategic relations through mutually beneficial cooperation, aiming to promote regional stability and enhance Iraq's efforts in addressing critical challenges, including water scarcity and climate change, alongside broader geopolitical concerns. These discussions underscore Iraq's proactive role in fostering international partnerships to address its pressing environmental and economic issues, demonstrating the importance of multilateral diplomacy in achieving long-term solutions.

The meeting marked an important step in deepening the Iraq-United States strategic partnership, focusing on economic cooperation, energy sector development, and climate change. The presence of a high-level delegation from Iraq, including the House of Representatives, Central Bank, Ministry of Oil, Ministry of Planning, Ministry of Finance, Ministry of Electricity, Climate Envoy, as well as The Kurdistan Regional Government, reflects Iraq's seriousness in strengthening this cooperation. On the other hand, the United States presents important figures such as National Security Advisor Sullivan, Envoy Special President for Change Climate John Kerry, and Deputy Finance Minister Adeyemo, who demonstrated the high priority of the bilateral relationship. The focus of discussions on the economic, energy and climate change sectors not only reflects the relevance of these issues in the Iraqi national context but also demonstrates a shared concern for stability and sustainability regional. It illustrates Iraq's effort to build closer relationships based on shared interests (US Department of State, 2023).

Diplomatic efforts undertaken by Iraq in addressing the crisis of water scarcity due to climate change reflect the application of various interconnected diplomatic principles, including multilateral diplomacy and water diplomacy. Iraq joined the Paris Agreement on December 1, 2021, as part of its commitment to reducing the impacts of climate change, particularly in relation to water scarcity. Iraq's participation in this agreement demonstrates a broader diplomatic approach, in which the country seeks international support to address the water crisis while contributing to global solutions. Furthermore, Iraq has been actively involved in international projects funded by countries such as Canada and the UK, reflecting its reliance on diplomacy to foster climate change adaptation and sustainable water resource management.

Transboundary water diplomacy becomes a critical aspect of Iraq's efforts, particularly concerning the management of the Euphrates and Tigris rivers that flow through neighboring countries like Turkey, Syria, and Iran. According to Gains (2024), water diplomacy encompasses negotiation, collaboration, and mechanisms to prevent conflicts over shared water resources. Iraq's participation in the UN Water Convention in March 2023 further solidifies its commitment to strengthening transboundary water cooperation and sustainable management of these critical resources.

In addition, Iraq is involved in various international projects funded by countries such as Canada and the UK, reflecting the use of diplomacy to support climate change adaptation and water resource management. Transboundary water diplomacy is a crucial component in addressing Iraq's water crisis, particularly in relation to the management of the Euphrates and Tigris rivers that flow through several neighboring countries, such as Turkey, Syria, and Iran. As Gains (2024) stated, water diplomacy encompasses

negotiation, collaboration, and mechanisms to prevent conflicts over water resources. Iraq joined the UN Water Convention in March 2023 as a strategic step to strengthen cooperation and ensure the sustainable management of transboundary waters. Additionally, Iraq has actively pursued diplomatic initiatives, including bilateral and trilateral agreements, with its neighboring countries to negotiate and resolve disputes over water resources. These efforts aim to foster regional cooperation, reduce tensions, and ensure fair and equitable sharing of transboundary waters, contributing to long-term stability and sustainable water management.

Iraqi diplomacy also includes efforts to resolve conflicts through trilateral negotiations with the river-sharing countries—Turkey, Syria, and Iran—to ensure the equitable flow of water from the Euphrates and Tigris rivers. These negotiations demonstrate the application of diplomacy focused on reconciling interests and preventing conflicts related to water management. Additionally, economic diplomacy is reflected in funding for projects related to cross-border water management, such as the USD 6.8 million provided by Canada and the UK. This form of diplomacy allows Iraq to access the technology, knowledge, and capital necessary to address the water crisis. Through these diplomatic efforts, Iraq seeks to strengthen regional cooperation and ensure sustainable management of transboundary water resources. However, despite these efforts, challenges persist, such as the impact of climate change and ongoing regional tensions, which continue to complicate water resource management in the region. Thus, Iraq's diplomatic strategy must evolve to include more comprehensive approaches that engage non-state actors, such as NGOs and academics, to complement formal diplomatic efforts and enhance the overall effectiveness of addressing water.

Iraq is also utilizing diplomacy to build capacity in managing the impacts of climate change, as demonstrated by its hosting of an international conference on water in Baghdad. The conference not only addresses water-related issues but also seeks to raise global and regional awareness of the importance of sustainable water resource management. By engaging in international dialogue, Iraq aims to promote policies that mitigate the impacts of climate change in the region and strengthen its position on the international stage. Sustainability is also a key focus of Iraqi diplomacy, reflected in efforts to preserve the Mesopotamian marsh ecosystem, which is essential for biodiversity and maintaining ecological balance. Furthermore, Iraq's participation in international agreements, such as the Paris Agreement and the UN Water Convention, further underscores its commitment to global efforts in combating climate change. These diplomatic initiatives aim to enhance regional cooperation, share knowledge, and attract international support for sustainable water management practices, crucial for addressing the ongoing water scarcity crisis.

Iraq is also working with Total Energies on the Gas Growth Integrated Project, a U.S. initiative to minimize harmful emissions. The \$27 billion cooperation agreement accelerates Iraq's move toward energy independence and efforts to combat climate change. The set projects can help Iraq to end dependence on unreliable energy sources and strengthen services to the interests of society. This agreement is also not only to address

climate issues, but as an effort to restore the economy through foreign investment and provide economic opportunities for the people of Iraq (Miller, 2023).

Overall, Iraq's diplomatic efforts in addressing the water scarcity crisis highlight the application of various interconnected diplomatic concepts. Multilateral diplomacy, transboundary water diplomacy, economic diplomacy, and climate change diplomacy play a crucial role in enhancing Iraq's capacity to tackle growing environmental challenges. Iraq has effectively utilized international forums and multilateral agreements to foster regional and global cooperation, addressing key issues related to water resource management in its region. However, while these efforts have made some progress, significant challenges remain due to extreme climate change, corruption, and the limited involvement of non-state actors such as NGOs, civil society, and academics. Integrating these non-formal actors could strengthen Iraq's water diplomacy and enhance its capacity to address the ongoing water scarcity crisis more effectively.

CONCLUSION

The Iraqi government employs water diplomacy through formal diplomatic channels, focusing on building communication and cooperation with state actors and formal institutions to address water scarcity challenges in Iraq. This diplomatic engagement is demonstrated through Iraq's participation in the Paris Climate Agreement, membership in the UN Water Convention, hosting the Baghdad International Water Conference, and mediation and negotiation with Turkey, as well as cooperation with the United States. These efforts highlight Iraq's commitment to seeking solutions and strengthening regional and international cooperation on water resource management. However, while Iraq has made strides through formal channels, the impact has been limited due to extreme climate change and high levels of corruption. The absence of non-state actors like NGOs, civil society, and academia in Iraq's water diplomacy has hindered progress. Incorporating these non-formal actors could enhance Iraq's efforts in addressing water scarcity more effectively.

Efforts through these formal channels have resulted in substantial financial assistance and various projects aimed at alleviating water scarcity, but their effectiveness remains limited. Iraq continues to face a critical and complex water scarcity crisis, indicating that formal diplomacy has not yielded the desired results. This lack of effectiveness can be attributed to two primary factors: the severe impacts of climate change and pervasive corruption within the government. To date, the Iraqi government has not demonstrated a willingness to engage in two-pronged diplomacy that includes non-state actors such as NGOs, civil society, academics, and other informal entities. Such actors play a crucial role in complementing formal diplomacy by bringing on-the-ground expertise, advocacy, and practical solutions. This gap highlights the need for Iraq to incorporate non-formal diplomacy to enhance the success of its water management efforts. The identified shortcomings present valuable avenues for future research, focusing on the

potential contributions of non-state actors in addressing Iraq's water scarcity crisis through a more inclusive and holistic approach to water diplomacy.

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