



**Universiteit Leiden**

*Faculty of Governance and Global Affairs*

*Institute of Security and Global Affairs*

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## **Hydropolitics:**

**The Role of Water Politics in the Prevention of Conflict over Transboundary Waters**

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Student: Paula Blanco Delgado

Student number: s1654810

Supervisor: Dr. E.E.A. Dijxhoorn

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## **Part 1: Introduction**

Environmental resources are key to human development. However, environmental degradation is increasingly affecting these resources. While IR theory has for a long time focused on a traditional approach towards security, environmental issues increasingly take part in the security discourse (Barnett, 2001). A great amount of environmental resources are seen as providers for humans' physiological needs. Indeed, history shows us how ancient civilizations often settled in places where water was abundant and accessible. As a consequence, and as this paper will show, academic literature has a growing interest in the management of water resources from a national and international perspective. More specifically, there is a growing interest in the relationship between water scarcity and conflict in the last decades, and how riparian states encounter issues when sharing the water resources they both depend on. Since natural resources were securitised, the study of water security has seen a growing attention from scholars. Indeed, the securitization of water has brought new ways of looking at this scarce resource, including the conception of water as a root for conflict, both at the national and international levels. However, although water resources are typically seen and studied as a potential cause for international conflict, as will be observed in the literature review, this paper aims at looking at these resources from a rather different perspective. This paper attempts to study these resources as drivers towards cooperation. This research seeks to address the following question: To what extent has hydrogeopolitics played a role in the prevention of interstate conflict over transboundary waters?

By looking at empirical data from the last decades, this paper analyzes the impact that water politics has had on the advancement of cooperation as an alternative to conflict. The primary aim of this research is to contribute to the existing literature on water security and conflict by filling a gap in the study of water governance. This contribution is relevant for the academic environment due to its ambition to provide in-depth insights into water resources from a security-related standpoint. It specifically aims at testing existing theories on the relationship between water resources and interstate conflict and provide analytical observations of this examination. In addition, it is socially relevant for the broader population since it provides further research on a topic that affects many countries in different ways, and it focuses on phenomena that is likely to gain increasing attention in the future due to the consequences of environmental degradation. In other words, this study seeks to obtain findings

that will enhance the general understanding of water politics and its role in the prevention of conflict over international waters. For instance, it aims to study hydro-politics from a practical standpoint, which will be done through case studies, and further determine whether there is a connection between this politics to the general hydro-political situation of the regions investigated.

This paper aims at undertaking an explanatory study on the relationship between hydro-politics and cooperation. By looking at the existing literature on the topic of water security and testing existing theories, this study aspires to offer a distinctive approach in the domain of governance of transboundary waters. For this purpose, the thesis is divided in five parts. The first three parts introduce the study, the theoretical framework and the research design of the investigation. The fourth part encompasses the analytical chapters and a discussion. Finally, the last part coincides with the conclusion.

First, this paper reviews the literature in order to determine the theoretical framework of the research, including the conceptualization of the main concepts and the hypothesis that will be tested. Part 2 will specifically introduce the existing literature on the concepts of water security and water politics, as well as the different studies investigating these topics. The literature review will enable the reader to understand the discussed notions, the gaps, and the general scope and motivation of this research. As will be explained this paper takes a critical stance by looking at hydro-politics as a dynamic notion, involving external factors and changing power relations. Furthermore, the review will give insights into dominant theories within the field. Water Wars Theory as introduced by Starr (1991) will be the theory to be tested and the main foundational direction of this study.

Part 3 provides a research design of the study. This section will introduce the specific set of methodological strategies that will be applied throughout the analytical chapter of the paper. Based on the observations from the literature review introduced in Part 2, the research design will determine the most suitable methodology to be used in order to carry out the proposed study. The main method will be the comparison of two case studies, the Jordan River and the Tigris-Euphrates rivers. In addition, Part 3 will further explain the reasons behind the case selection, the operationalization of the variables, and the main limitation of the current investigation.

Part 4 encompasses the analytical chapters of this paper. It investigates both case studies and compares them in terms of hydro-political dynamics and status quo of the cooperation. By analyzing data and obtaining observations from this analysis, the analytical chapters examine the hydro-political dynamics in both case studies as well as the status quo of the two cases with regards to water

cooperation. In addition, Part 4 ends with a brief discussion on the most important findings that have been obtained in the analysis, and somewhat relates them to the research question presented at the beginning of this paper.

Finally, on the basis of the observations obtained in Part 4, Part 5 provides the reader with conclusions as well as important remarks. This section will answer the research question presented in the introduction of the research and will reach conclusions on the potential causal relationship between hydro politics and water politics. Moreover, it will touch on the limitations of the current study and will offer indications for further research on the topic.

## **Part 2: Theoretical Framework**

Environmental security is an increasingly studied area within the field of security studies, and more specific research on water security covers a large part of it. Water security is comparatively a new concept and is still developing as such. For this reason, the number of scholars that have written on the topic is rather limited if compared to other security-related topics. At the same time, opinions vary in regards to the issue, creating a literature rich in ideas and theories and providing its study with contrasting perspectives. This section aims to provide the reader with a general understanding on the topic of water security and the most influential works and ideas on the issue. In order for this research to follow a cohesive and interconnected structure, a theoretical framework needs to be developed. This part will therefore serve as a theoretical guideline on how to carry out the research of this study. Since the question being investigated in this study focuses on the role of water politics in the prevention of conflict, this review will provide the reader with the most outstanding literature concerned with each of these aspects. First, this paper will provide a summary of the most significant existing definitions for water security and an introduction into the issue. Second, the different standpoints and evidence on the relationship between water scarcity and conflict will be summarized and reviewed. Finally, in an effort to provide the reader with general knowledge on water politics, this review will also include a section summarizing some of the most influential works in regards to hydrogeopolitics.

The concept of water security lacks a generally accepted definition. However, and despite the difficulty to provide a definition that covers all the different factors and elements of water security, a growing number of scholars are addressing this issue by examining and providing knowledge on the topic. Cook and Bakker (2012) analysed the framing of water security across different disciplines. The first framing focuses on the assessment of water security in regards to water quantity and quality (Ibid.). The second framing analyses water risk and vulnerability (Ibid.). The third framing studies water as part of human needs (Ibid.). Finally, the fourth framing is concerned with sustainability (Ibid.). Therefore, definitions vary in accordance to these discourses. Some scholars attempt to involve many of these themes in one definition, like Grey and Sadoff (2007), who define water security as “the availability of an acceptable quantity and quality of water for health, livelihoods, ecosystems and production, coupled with an acceptable level of water-related risks to people, environments and economies” (545). Amery follows this ambition and argues that water security is concerned with the the availability of water, the production of potable water through the use of

technology, and the government's role in the development of organisations and infrastructure that allows for the production and supply of this water (2015). It is in furtherance of exploring this topic that this study considers the definition provided by Grey and Sadoff (2007) to fit the scope of this paper, since it involves water security at both the individual and national level. The latter is the main focal point of this research.

A great number of papers that have been written on water security include a section relating to conflict. Joyce Starr (1991) became one of the first scholars to write on water security and one of the first authors to use the concept of water wars, these referring to the conflict arising from water scarcity. According to Starr, "water security will soon rank with military security in the war rooms of defense ministries" (Ibid., 19). Starr's perspective is based on a rather traditional approach to security in which warfare and the military have a key role. De facto, Katz (2011) looks at studies and data in regards to water-related violence and conflict and comes to the conclusion that, of the 37 cases of water conflict recorded globally, "none were more recent than 1970, none were all-out wars, and in none was water the central cause of conflict" (15-16). Along the same lines as Starr, Kreamer (2012) makes a similar point when explaining that the lack of effective actions against the challenges presented by water security could lead to instability and, more specifically, conflict (1). However, other scholars who have looked at water security have found little evidence of this link between water scarcity and conflict. Deudney (1991) argues that it is more likely that disagreements over water resources will lead to cooperation, therefore enhancing peace and avoiding conflict (26). According to Deudney, the scarcity of water resources "creates a mutual hostage situation which greatly reduces the incentives for states to employ violence to resolve conflicts" (Ibid., 26). In the same vein, Dolatyar et al. (2000) agree with Deudney on the creation of a mutual hostage situation and adding that "water is too vital a resource to be put at risk by war" (67). In an effort to determine the veracity of these claims, Yoffe and colleagues undertook an examination of the available data on water conflict and cooperation, and noted that "for the years 1948 to 1999, cooperation over water, including the signing of treaties, far out-weighed conflict over water and violent conflict in particular" (2003, 1,112). Together, these studies indicate that opinions are divided on water as a root for conflict, however a variety of studies analyzing the evidence available conclude that it is water cooperation that prevails over water conflict. This evidence is the driver of this research. Since it is now well established that water scarcity leads to cooperation instead of conflict, it is necessary to examine further and determine the role of diplomacy, more specifically water politics, in the development of cooperation and interstate peace over shared waters.

Water politics is a central subject within the debate introduced above. Since security and cooperation at all levels tend to involve diplomacy, water politics have emerged to become an instrument in the pursuit of these. The concept of hydropolitics, also known as water politics, first appeared in 1979 when Waterbury wrote on the topic and analysed the water politics of the Nile valley (Waterbury, 1979). It was in the following decades that the concept was further developed, but there is still a need for a generally accepted definition of hydropolitics. Nevertheless, some scholars have attempted to come up with a formal explanation of this concept. Elhance (2000) defines hydropolitics as “a systematic study of the nature and conduct of conflict and cooperation between states over transboundary water resources” (202). The same author has however highlighted the complexity of this domain, both its interpretation and its study, which he regards as ‘complex’ (Ibid.). Although Elhance calls for more attention to the concept, he explains that hydropolitics is highly shaped by the behaviour of the parties involved in the negotiation process (Ibid., 221). With scholars like Sneddon and Fox (2006), the concept of critical hydropolitics is developed and gains attention within the academic realm focusing on water security. These scholars argue that a critical approach to hydropolitics touches on aspects that are underdeveloped in the traditional study of hydropolitics (2006, 183). In the same vein, the work by Cascão and Zeitoun (2010) is often considered one of the most influential pieces on critical hydropolitics. Indeed, as the authors argue, it is “a ‘primer’ on established and emerging critical hydropolitical theory” (2010, 27). As can be observed in the work by Cascão and Zeitoun, scholars involved in the academic arena of critical hydropolitics understand water politics as a wider concept that also entails asymmetric power relations and a changing status quo, which challenges the idea that power relations are static and remain unchanged over time (Ibid., 30). Overall, there is a growing attention being paid to hydropolitics as a field of study, but the development and establishment of a clear and official definition for the concept remains a challenge. This paper will make use of the conceptualization of hydropolitics as defined by Elhance (2000), and will have a critical approach towards its study as proposed by Cascão and Zeitoun (2010). By doing this, this research aims to contribute to the study of critical hydropolitics.

After looking at the existing literature on water security, water cooperation and hydropolitics, several theories and arguments can be used for the further research on the topic. With regards to the conceptualization of water security, this study makes use of the definition provided by Grey and Sadoff (2007), which can be found above. This paper also makes use of theories and arguments in order to build a foundational framework. First, the Water Wars Theory will be tested in an attempt to challenge the connection between transboundary water resources and conflict. According to this theory, water scarcity has the potential to lead countries into conflict when there exists a wider conflict and they depend on the same water resources (Alam, 2002). The notion of Water Wars as



introduced by Starr (1991) will therefore be one of the main arguments within this theory, adhering to the idea that conflict can emanate from water scarcity. Second, this research will address hydropolitics as defined by Elhance (2000), and it will approach its study from the standpoint of critical hydropolitics, therefore understanding it as a dynamic notion, as explained above. Third, the present study will consider Deudney's argument as the basis to test the Water Wars rationale. Deudney, as previously explained, argues that water scarcity will lead to a mutual hostage situation that will consequently drive the riparian countries to cooperate (1991, 26). Deudney's argument can therefore be considered a counterargument to Starr's reasoning and it becomes an important foundation for this research.

Following the arguments and theories discussed in the literature review and the theoretical framework, a hypothesis is raised. This is developed based on the previous sections and will be tested throughout the research. The hypothesis is that hydropolitics is an important factor in the prevention of conflict by promoting cooperation among the different parties involved in the dispute over transboundary waters. Therefore, this research tests the hypothesis of the water wars as suggested by Starr (1991), which argues that conflict over shared water is likely to arise.

### **Part 3: Methodology**

In order to obtain observations and answer the research question, this research will focus on the potential causal effect that hydropolitics has in water cooperation. In this case, the independent variable is hydropolitics, while the dependent variable is the prevention of interstate conflict over transboundary waters. Therefore, this research seeks to determine the role played by the independent variable (hydropolitics) in the dependent variable (prevention of interstate conflict over transboundary waters).

For this reason, this investigation will conduct a comparative case study research. The cases selected for this study are the case of the Jordan River and the case of the Tigris-Euphrates rivers. These two cases are different for various reasons. First, they have different amounts of riparian countries. While for the Jordan River this study examines the hydropolitical dynamics between two countries, for the Tigris-Euphrates these dynamics are studied between three countries. Second, the nature of the river differs. While the former case is a crossing border river, the latter is a downstream river system. However, both cases share the presence of water politics in their basins, which can be seen in the current existence of a cooperation among the countries. With regards to the dependent variable, these two cases also provide different outcomes. The Water Cooperation Quotient (WCQ) provides insights into the cooperation over transboundary waters by looking at different indicators. These insights are based on empirical observations of the past. The risk of war is based on the following criteria. First, “existence of a point of contention and absence of effective dispute resolution mechanisms to address it, over which at least one state from time to time has threatened an intervention of its armed forces” (2017, 7). Second, “involvement of state authorities of Country X to assist the armed non-state actors in or fighting against country Y, to the extent that Country Y lodges a strong protest with the international community or threatens military action against Country X” (Ibid.). Third, “any event that could result in significant loss of life, whether the countries involved consider such loss “significant” in their own perception, to the extent that they threaten intervention of their armed forces” (Ibid.). According to the WCQ 2017, the cooperation over the Jordan River, more specifically the Israeli-Jordanian Joint Water Committee, scored 56.67 (100), consequently meaning that the risk of a water-related conflict between these states is very low. On the other hand, the WCQ 2017 shows that the cooperation over the Tigris-Euphrates is more complicated and that the risk of conflict is high. The score varies among the states that are involved in this cooperation. While the relationship between Iraq and Turkey scored 53,33, the relationships Iraq-Syria and Syria-Turkey both

scored 3,33, meaning that the risk for conflict between these states is rather high (Ibid., 112). This high risk of water is due to the “existence of a point of contention and absence of effective dispute resolution mechanisms to address it, over which at least one state from time to time has threatened an intervention of its armed forces” (Ibid., 7). The WCQ is an useful tool to assess the cooperation of these rivers because it covers a large number of factors and elements to reach its findings. This research makes use of this data since it determines the status quo of the cooperation based on observations from official documents, policy reports and databases (Ibid., 18). In addition, the case selection of this research is based on a typical case study. In this case, the Jordan river is representative of those rivers that have received a high score for their cooperation according to the WCQ as well as of those that are cross-border in nature, while the Tigris-Euphrates river is representative of those that received a low score for their cooperation and of those that are downstream rivers. For this reason, the selection of these two case studies allows for a generalization to similar cases. This is a possibilistic generalization, which illustrates the limitations of making a generalization based on the findings of few case studies, as it occurs with this research. This challenges the frequent criticism on the generalizability of case studies by transparently describing the limitations of the generalization made in the research.

In an effort to answer the research question, empirical observations will be the main method for data collection. Qualitative research has for a long time been the predominant method within political sciences when it comes to case studies, since many researchers have pointed out that quantitative research “provides evidence for average effects rather than evidence that some particular cause results in a particular effect” and that “it lacks explanatory power for particular cases” (Crasnow, 2012, 658). In regards to data collection specifically, this research will seek to obtain cause-process observations, often known as CPOs and described as “pieces of data that provide information about context, process, or mechanism and contribute distinctive leverage in causal inference” (Brady & Collier, 2010, 318). These observations will provide the research with empirical and valuable information for determining the causal connection between the variables. Indeed, this process takes the form of qualitative analysis, which includes document and historical research (Crasnow, 2012). The research proposed in this paper will therefore aim at making use of secondary sources data, involving both historical books and articles, as well as more official documents like government and more general official reports.

In order for the research to make sense of the information gathered from the secondary sources, it is necessary to have a clear methodology concerning the data analysis. As explained, these sources will provide historical data for each case study, which will become observations. The

qualitative procedure through which these observations are obtained is called process tracing (Brady & Collier, 2010). This method will be used as a guideline to investigate the historical development of hydro-politics in both cases studies and gain a better understanding of this process.

Furthermore, regarding the operationalization of the independent variable, hydro-politics, it is necessary to look at how it will be measured. As explained earlier, water politics are understood in this study as a dynamic concept that involves different factors like power relations and changing status quo. In order to comply with this wide concept, this paper measures hydro-politics by comparing the extent to which diplomatic relations are enhanced through the improvement in communication among the riparian countries, the advancement of negotiations, and the achievement of agreements. It is possible to say that hydro-politics are present in both case studies because both cases have an established cooperation already, however the degree of these politics might be different. This is what this research focuses on. While the cooperation already exists, it is necessary to look at the extent to which hydro-politics has had an influence in this cooperation and its status quo. In an effort to answer the research question of this paper, the analytical chapter comparing the hydro-political dynamics in the two case studies will be structured on the basis of six points of interest: timeframe, external actors, wider political context, national interests, cooperation initiatives, and nature of the rivers. As will be seen, these elements have played an important role in the functioning of water politics in both case studies, and they offer ground for comparison.

Finally, limitations need to be assessed in regards to reliability and validity. According to Kirk and Miller, reliability is “the extent to which a measurement procedure yields the same answer however and whenever it is carried out”, while validity is “the extent to which it gives the correct answer” (1986, 6). In the case of this research, both case studies are still ongoing situations that could change in the future, consequently altering the observations of this investigation and having an effect on the reliability of the research. However, big changes, with the potential of changing the direction of this research, are not likely to occur in the near future and this should not impede the realization of this study since the need to fill the gaps in the academic realm is significant. Overall, the reliability and validity of this research are ensured through the strict application of the qualitative process selected, process tracing. By applying in a strict manner this method, this study should obtain reliable and valid observations. On a different note, additional limitations can challenge the present investigation. First, it is worth noting that this paper is unable to control several factors that might alter the outcome of the analysis and the conclusion of the paper. More specifically, it cannot have control over the various elements or circumstances that can have an effect in the investigation. While this paper aims at considering the most important aspects demanding attention, there might exist

external influences that are not included and still play a part in the hydro politics of a region, but cannot be controlled for in this study. Second, it is necessary to acknowledge that the limited scope of this research does not allow for in-depth analysis and might explain the little attention given to some elements. Finally, the current study aims at presenting directions and indications on the role of hydro politics in the two case studies, and therefore does not intend to give predictions. The indications provided by this paper are meant to serve as a guidance and groundwork for further research.

## **Part 4: Analysis**

### **Chapter 1: Hydropolitics in the Jordan River**

#### **1.1 Historical and political background of the Jordan River**

The Jordan River constitutes one of the largest and most significant water sources in the Middle East. It covers 251 kilometers and it flows through Syria, the West Bank, Jordan and Israel, passing through the Sea of Galilee and on to the Dead Sea. Its basin covers Jordan in a 40 per cent, Israel in a 37 per cent, the Syrian Arab Republic in a 10 per cent, the West Bank in a 9 per cent, and Lebanon in a 4 per cent (FAO 2016). However, this paper focuses on the water cooperation established by Jordan and Israel for two main reasons. First, these two countries constitute the countries with most access to the River. Second, the Israeli-Jordanian Joint Water Committee will serve as the point of attention throughout the analysis.

The river comprises two border crossings between the countries of Jordan and Israel, the Jordan River Crossing or Sheikh Hussein Bridge, and the Allenby Bridge or King Hussein Bridge. This characteristic is of special interest for this paper, since the river does not only pass through both countries but it also shapes their border, defining their frontiers. Moreover, the river has for a long time carried religious value, both to Judaism and Christianity, which has further intensified the strategic and symbolic meaning of the river. At the religious level, the river holds significant value for Jews, since it represents the entrance to the Promised Land in the Bible. It is for this reason that Israel has a great interest in the river, since it not only comprises a strategic water resource but also carries an important spiritual meaning for Judaism. Figure 1 provides an overview of the Jordan River Basin, in which one can observe both the riparian countries and the river flow.



Figure 1. Jordan River Basin

Source: 'AQUASTAT website', Food and Agriculture Organization of the United Nations (FAO), 2016. [http://www.fao.org/nr/water/aquastat/basins/jordan/jordan-CP\\_eng.pdf](http://www.fao.org/nr/water/aquastat/basins/jordan/jordan-CP_eng.pdf)

However, its location between the countries of Jordan and Israel has for a long time compromised its water allocation. The Jordan River is the most important source of water for Israel and Jordan, however the annual variations as well as the extreme seasonal conditions of the region has a great impact in the natural discharge of the river (Ibid.). Indeed, it is for these reasons as well as its border condition and the hostile situation between these countries that have profoundly shaped the political and diplomatic relations between the two with regards to the distribution of the river's water resources. History shows how the river has been subject to disagreements and tensions, consequently politicizing its water.

In the early 1990s, the newly established states in the Middle East understood the importance of water resources in this process (Soslund 2007, 20). State-building became the primary focus in the region. Furthermore, the mandate period intensified nationalist feelings, and while the Zionist movement encountered confrontation by the Arab population, the Jewish community advanced in its intention to secure its access to water by establishing "an aggressive policy of building institutions and gathering funds" (Ibid., 21). In the 1940s, the United States began to engage in the water politics of the Jordan Valley through an invitation by the British to become part of an Anglo-American Committee (Ibid., 24). It was in these years that tensions arose with the 1948 Arab-Israeli War. The aftermath of this conflict led to population shifts as well as to adjustments and changes in the system of alliances with regards to water resources (Ibid., 25).

Since the foundation of Israel, the Jordan River has become a major source of separation between the two riparian countries. This transboundary character of the river provides this research with the opportunity to investigate the role played by water politics in such a scenario, and gain insights into the behaviour of the riparian countries with regards to their shared water resources. Considering its religious and geopolitical value, the Jordan River becomes a case of interest in the study of hydro politics. Moreover, the recently establishment of its riparian states and their long-standing conflict provides further significance to its study.

## **1.2 Hydro politics in the Jordan River Basin**

Hydro politics at the transboundary level has seen a growing attention in the Jordan River Basin since the 1990s. It is necessary, however, to evaluate its performance in order to understand its influence and repercussions in the political scheme of the Jordan River. While the previous section looked at the general picture of water politics in the basin, this section aims at analytically determining the role and impact of this politics in the prevention of conflict at the interstate level.

The involvement of the United States in the Jordan River's water politics marked a switch in how the newly established riparian states engaged in the establishment of hydro politics for the pursuit of water cooperation. It is for this reason that this section will give a significant emphasis to the involvement of the United States' mediation and focus on the decades after this American presence in the political framework of the Jordan River Basin. In addition, the Arab Plan of 1954 and the Israeli Plan of 1954 will also be analyzed in order to gain insights into other hydro political plans as proposed by the Arab states on the one hand, and Israel on the other hand. In an effort to gain insights into the role played by Palestinian authorities and the general Israeli-Palestinian conflict in the hydro political dynamics of the basin, a final section will investigate this concern.

### The Johnston Plan



The United States first appeared in the hydro-political scheme of the Jordan River in the early 1950s. Following diverse economic, political, ideological and security interests, which go beyond the scope of this study, the United States saw the dispute over the Jordan River as an opportunity for a strategic movement (Lowi 1993, 81). After establishing unilateral plans with Jordan and encountering disagreement by Israel, Johnston's mandate plans became the mission to be carried out in the Middle East under Eisenhower's presidency (Ibid., 86). The American mediation provided the basin with a new perspective on how to achieve peace while at the same time strengthening economic and political development. Johnston's main objective was to promote an approach to water management that would be characterised by regional cooperation (Alatout 2011, 219). Therefore, hydro-politics were to switch from a national to a regional discourse. This can be seen in how the Main Plan of 1953 was discussed by various water experts from the different riparian states and led to the Johnston Unified Plan in 1956 (Ibid., 221). By mediating conversations among the different states, the United States enhanced a regional approach to the Jordan River's water management. In this regard, Alatout highlights that one of the most important points of this plan was that "all the states in the region limited their water use to their share of the plan until the war of 1967 when all the headwater of the Jordan River came under the control of the Israeli forces" (Ibid., 221). The fact that riparian states kept such a cooperating position for over a decade supports the argument that the Johnston Unified Plan was somewhat successful.

However, it is worth highlighting the influence of power relations among the riparian states in the establishment of the Johnston Unified Plan. Indeed, Lowi argues that "the Jordan waters issue could not be considered outside the context of relations in the basin, and those relations were part and parcel of the larger political conflict" (1993, 112). Following this idea, it is possible to conceive hydro-politics during the Johnston Mission as being influenced by the broader political context of the region. On the one hand, it is necessary to aim attention at Jordan's adherence to the wider opinion of the Arab states. In fact, although Jordan was keen on the Unified Plan, it was not able to make any decision without taking into account the judgement of the other Arab states (Ibid.). On the other hand, another factor that had an impact in the regional hydro-politics by this time was the indisposition by the Arab states to cooperate with Israel. The main reason behind this was the reasoning of these riparian states to not cooperate with a state that they did not even recognize as legitimate (Ibid., 113). Therefore, the hydro-political position in the Jordan River Basin as established by the Johnston Mission was not merely induced by the American mediation but also by the active influence of the wider political framework that existed in the region.

Nevertheless, it can be argued that the American presence in the region since the early 1950s contributed to a more regional and cooperative approach to the water management of the Jordan River. When looking at the role of the United States in shaping a new hydropolitical structure in the basin, it is possible to see how it enforced the idea that conflict can be overcome through dialogue. This can be seen, at least, since the establishment of the Johnston Unified Plan in 1956 until the outbreak of war in 1967. By promoting this new perspective of looking into the water issue, the riparian states found a way to discuss the different plans they had at the national level and try to reach an agreement on how to share the water resources fairly.

### The Arab Plan of 1954

The Arab Plan of 1954 came to existence as a reaction to the Johnston Plan. It was submitted in January 1954 and it presented some changes and conditions to the Johnston Plan by challenging several of its propositions: “first, redefining the concept of the watershed; second, stressing the legitimacy of the concept of gravity; and, third, adjusting the water duty determined by the Johnson plan” (Alatout 2011, 228-229). This plan aimed at addressing the interests of the Arab states, which seemed to not be represented in the Johnston Plan. Indeed, it is often regarded as a counter-proposal (Alatout; Lowi). With the Arab Plan, the concerned Arab states were able to take an active role in the discussions by reinforcing their concerns and focusing on how to redefine the proposed Johnston Plan for it to adjust to Arab interests. This engaged effort demonstrated the power of the riparian Arab states in shaping the dialogue with the US and Israel.

In addition, the Arab Plan highlighted the wider political spectrum through the following goals: enhancing a transboundary Arab identity, and reinforcing the idea of the Other, which coincided with the Israeli state (Alatout 2011, 231). Hence, the Arab Plan not only aimed at adjusting the agreements at the hydropolitical level, but also attempted to display the broader regional politics into the water plans. This can also be observed in how the Arab Plan gave water a political value by highlighting the following statement: “Most of the sources of the Jordan River waters come from Arab districts (Lebanon, Syria, and Jordan) and from other springs and sources that lie on the two banks of the river (most of which are in Jordan)” (Ibid., 230). This makes reference to the much disputed water allocation of the Jordan River system. In the Arab Plan, Israel would see a decrease in the percent of water it would access, while Syria and Jordan would highly benefit from an increase in its water supply (Lowi 1993, 90). The Arab Plan’s proposed water allocation can be seen in Table 1. The hydropolitical scenario, despite being strongly mediated by the United States, was influenced by regional politics. The conflict with Arab-Israeli conflict led the Arab states to pursue their interests

and distribute the Jordan waters according to these. Arab efforts, however, were not ineffective. Johnston urged Israel to accept some of the propositions of the Arab Plan (Ibid., 93), which demonstrates the power of the Arab states in framing hydropolitics.

Table 1. Arab Plan: water allocation

	Quantity of water (mcm)	Land to be irrigated (ha)
Israel	270	23,400
Jordan	911	49,000
Syria	120	11,900
Lebanon	32	3,500
<b>Total</b>	<b>1,333</b>	

Source: Miriam Lowi, *Water and Power: Politics of a Scarce Resource in the Jordan River Basin*, (1993) 90.

#### The Israeli (Cotton) Plan of 1954

The Israeli Plan of 1954 also came as a response to the Johnston Plan and led to discussions with both the United States and the Arab states. While the Johnson Plan aimed at promoting water management at a regional level and the Arab Plan looked at water management from an Arab-identity standpoint, the Israeli Plan was based on the nation-state (Alatout 2011, 231). This difference defined the propositions to be made by Israel with regards to adjusting the Johnston Plan. Alatout provides a detailed description of the Israeli objections to this plan, which can be summarised as follows: the Johnson Plan did not respect the legitimate and independent use of the watershed by the nation-states, and it ignored the importance of the Negev for Israeli development (Ibid., 232). In challenging these aspects of the Johnston Plan, Israel was projecting its political notions into the regional hydropolitics, as the Arabs did with the Arab Plan. In fact, the main objective of the Cotton Plan was to defend Israel's water share of the Jordan River and its freedom to use it within its territory (Lowi 1993, 91). In line with this idea, the Cotton Plan advocated for an increase in Israel's quantity of water, which can be seen in Table 2. Israel's water allocation was to be increased by three times, while Jordan's was to be decreased by 25 percent (Ibid.).

The hydropolitical framework proposed by Israel focused on "the primacy of efficiency for water utilization in agricultural development" (Alatout 2011, 233). With the Cotton Plan, the country aimed at reframing the hydropolitical issue by addressing it from a comprehensive perspective. As stated in the official document, "the plan is not limited to the resources of the hydrographic basin -

since hydrographic boundaries have no real engineering meaning- but includes all resources which can be beneficially integrated into a regional plan” (Israel 1954, 2). Being irrigation the main idea behind this proposal, Israel intended to increase its water supply in accordance to its land to be irrigated. However, the main concern of the Cotton Plan was portraying its right to make use of the Jordan River’s water in accordance to its territorial sovereignty (Alatout 2011, 234). Hence, hydropolitics served to the newly established state of Israel as a means to display its legitimacy and strengthen its larger political goals despite the hostile stance of the Arab states.

Table 2. Israeli (Cotton) Plan: water allocation

	Quantity of water (mcm)	Land to be irrigated (ha)
Israel	1,290	179,000
Jordan	575	43,000
Syria	30	3,000
Lebanon	450.7	35,000
<b>Total</b>	<b>2,345.7</b>	

Source: Miriam Lowi, *Water and Power: Politics of a Scarce Resource in the Jordan River Basin*, (1993) 91.

### The West Bank and Palestine in the hydropolitics of the Jordan River

The West Bank represents an important actor in the overall development of hydropolitics in the Jordan River Basin. This is due to the wider, long-standing Israeli-Palestinian conflict. As previously discussed, the Arab states of the region had a strong influence in Jordan’s position with regards to the water issue, which was further exacerbated by the strategic position of the West Bank and its access to the Jordan River. Israel, as a powerful state in the region, has for a long time enjoyed a greater power position in its water dispute with Palestine. For instance, a major point of concern for Israel and Palestine has been the shared aquifers. According to Sosland, these are “critical to Israel; any sudden or significant decrease in their availability would cause harm to Israel’s economy and its security” (2007, 157). It is for this reason that Israel made significant efforts to secure its access to water. In 1967, Israel commenced to limit and prevent any Palestinian water use and development in the West Bank (Ibid., 147). This behaviour somewhat demonstrates Israel’s commitment to securing its access to water and to the overall Jordan River. Indeed, as argued by Sosland, “when a player has no control over the other and reciprocity is not a viable option, then cooperative strategies will not be long lasting” (Ibid., 157). Therefore, the powerful Israeli position and its control over the West Bank

has led the water cooperation to overlook the Palestinian voice in the issue. The water cooperation established by Jordan and Israel, specifically as a bilateral collaboration, has been able to continue developing and improving despite the long ignored presence of Palestinians.

Overall, regional hydropolitics in the Jordan River Basin have been characterised by the emergence of American mediation and the resultant Arab and Israeli reactions to the Johnston Plan. In addition, it is possible to observe how the political stance taken by both Israel and Jordan are hugely influenced by the broader regional political structure, which is strongly tied to identity politics and national interests. Jordan serves as an example with this regard, since the country's political position is driven by the Arab states' interests and transboundary Arab identity. Wessels explains that there tends to be more empathy among people when they have a shared identity (2015, 1,325). Indeed, the identity disparities between Israel and Jordan concerning this matter can, to a certain extent, explain the lack of eagerness by both parties to give up their interests within the hydropolitical context in furtherance of water cooperation. This situation further aggravates the dispute and impedes the correct functioning of hydropolitics. According to Wessels, "if players play purely selfishly and for their own gain and interest, the outcome is an extremely hydrogemonic situation with inequitable distribution of water resources amongst the co-riparians that is detrimental for the basin" (Ibid., 1,336). The Jordan River Basin is an example of how existing rivalry between the riparian countries hinders the performance of hydropolitics in enhancing regional cooperation. The following section will address the hydropolitical scenario of the Jordan River Basin in an effort to gain insights on the status quo of the water cooperation between Jordan and Israel.

### **1.3 Hydropolitical status quo of the Jordan River**

The ECC Factbook, which maps environmental conflicts and cooperation, provides useful information about the water conflict and cooperation between the two riparian countries. The report is positive about the cooperation between Jordan and Israel over the Jordan River's transboundary waters. More specifically, it declares that the cooperation has seen an improvement with regards to the capacity to address potential disputes in the future (ECC, 7). The report explains that "conflict resolution strategies have been clearly responsible for the decrease in conflict intensity" (Ibid.). This means that the countries have been able to develop and improve various hydropolitical instruments to solve any conflict they might confront over the shared waters. This data goes in accordance with the

score obtained by the countries in the WCQ 2017. As previously noted, the Water Cooperation Quotient analyzes the status quo of the established cooperation on the basis of past instances. The Israeli-Jordanian Joint Water Committee scored 56.67, which indicated that the risk of a water-related conflict between the states is very low (WCQ 2017, 100). This score can be explained, for instance, by the fact that a major part of the dispute has been addressed (ECC, 7).

The ECC Factbook also offers points of interest with regards to the hydropolitical process in the region by linking it to the status quo of the cooperation. It highlights that in 2015 Jordan and Israel reached an agreement and cooperated in the construction of a canal which would supply water to the two countries, as well as that other technical measures contributed to alleviating the water tensions (Ibid., 8). The constant progress made by Israel and Jordan has certainly shaped their cooperation and it has led them to an improvement concerning transboundary water management. In addition, the American mediation in the negotiation process between the two countries has contributed to this improvement by promoting and reinforcing the bilateral cooperation (Ibid.). By becoming the main mediator in the dispute over the Jordan River, the United States established guidelines on how to develop an effective cooperation and strengthened good relations between the countries.

The Hague Institute for Global Justice published a report on the water cooperation over the Jordan River, which offers observations about the Israeli-Jordanian hydropolitical relations. According to this report, the 1994 Peace Treaty by the two countries led to the establishment of the JWC (2017, 49). This Joint Water Cooperation has an important role within the cooperation dynamics between the two countries (Ibid., 54). The reports does contend, however, that “cooperation between Israel and Jordan is building onto and affected by the historical relationship between the two countries, and associated water conflicts they faced in the past” (Ibid., 55). Certainly, past experiences between Israel and Jordan, or the Arab states in general, have framed the existing cooperation between the countries and it will most likely stay that way. Touching specifically on the status quo of the cooperation, the report notes that, although there still exist tensions, particularly with regards to the Israeli occupation of the West Bank, the water cooperation provides the two countries with advantages for their national development, both at the socio-economic level and the geo-political level (Ibid., 55). Moreover, it remarks that these tensions can be overcome and that the established cooperation can be improved if the negative sentiments by the Jordanian population towards Israel are addressed (Ibid.). Enhancing water cooperation is beneficial for both countries, due to Jordan’s dependency on Israel and Israel’s interest in keeping a good relationship with Jordan. It is important for Israel to maintain good relations with its neighbour since Jordan is one of the few Arab countries with whom Israel has reached a peace agreement (Ibid., 53). In the last decades, water politics has allowed the two riparian

countries to take advantage of the good relations to further cooperation and to enhance national development interests. It is for this reason that, after analyzing hydrogeopolitics in the Jordan River Basin, it is possible to observe a growing interest in cooperation.

Haddadin notes that the development of bilateral negotiations was the main reason behind the resolution of the water conflict between Israel and Jordan (2000, 280). Furthermore, the author highlights the switch in the Arab perspective from the 1950s to the 1990s, and from avoiding any type of negotiation with Israel to strategically aiming at reaching peace with its Israeli neighbour (Ibid.). It is indeed possible to see how both parties became aware of the benefits of a joint cooperation, and how there has been an increase in hydrogeopolitical measures by having more contact, more negotiations and more agreements. This process has allowed the JWC to establish a rather stable relationship with regards to water. For instance, although wider regional tensions are still present and they have an influence in the existing water cooperation, the two countries have learnt that the current status quo, characterised by peace agreements and joint water management, is beneficial for both sides. The 1994 negotiations were successful due to a change in mentality, since both Israel and Jordan decided to take a more comprehensive approach towards the conflict and finally reach peace (Ibid., 282). As expressed by Haddadin, “the joint will of Jordanians and Israelis to have their conflict resolved and arrive at peace was behind the success of the negotiations” (Ibid.).

## **Chapter 2: Hydrogeopolitics in the Tigris-Euphrates Rivers**

### **2.1 Historical and political background of the Tigris-Euphrates Rivers**

The Tigris-Euphrates Basin river system encompasses the countries of Iraq in a 46 per cent, Turkey in a 22 per cent, the Islamic Republic of Iran in a 19 per cent, the Syrian Arab Republic in a 11 per cent, Saudi Arabia in a 1.9 per cent, and Jordan in a 0.03 per cent (FAO 2016). However, this research focuses on Turkey, Iraq and Syria, since these countries share both the Tigris and the Euphrates rivers. While the river system originates in Turkey, it flows through Syria and Iraq and finally reaches the Persian Gulf. It is therefore a downstream river system. This characteristic has shaped the relations among the riparian states in this basin, mainly because “Turkey finds itself in a

strategically strong position as the only country in the Euphrates-Tigris River Basin to enjoy abundant surface water and groundwater resources” (Ibid.). Figure 2 presents an overview of the Tigris-Euphrates river system, including the riparian countries of the rivers and the river flow.

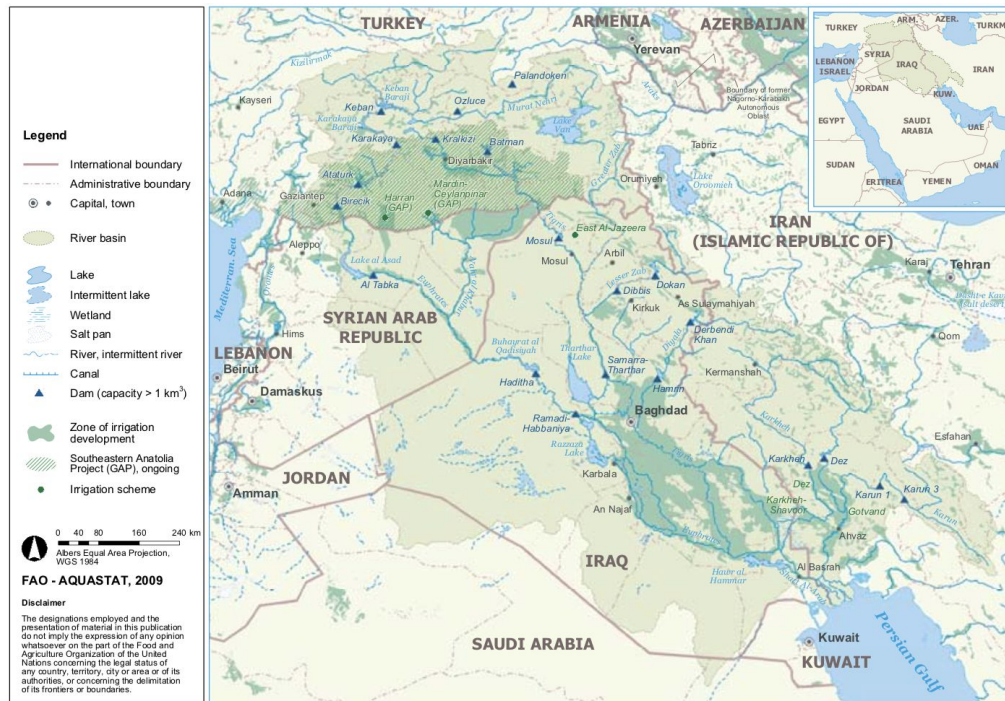


Figure 2. Tigris-Euphrates River Basin

Source: ‘AQUASTAT website’, Food and Agriculture Organization of the United Nations (FAO), 2016.

[http://www.fao.org/nr/water/aquastat/basins/euphrates-tigris/Euphrates.tigris-CP\\_eng.pdf](http://www.fao.org/nr/water/aquastat/basins/euphrates-tigris/Euphrates.tigris-CP_eng.pdf)

Both the Tigris and Euphrates are used by Iraq to derive the major part of its freshwater (Kibaroglu et al. 2013, 282). For Syria, the Euphrates river is, among the seven rivers it has within its borders, the most important one with regards to water resources from a strategic level (Ibid.). For Turkey, the Tigris-Euphrates basin “accounts for nearly a third of the country’s surface water resources and a fifth of its irrigable land”, making it an important source of water out of the twenty-five basins that can be found in the country (Ibid.). The two rivers therefore have always represented an important water resource for the three countries. However, the variation in annual discharge represents a major challenge for the riparian countries of the basin.

Considering these aspects, it is worth highlighting how the riparian countries of the Tigris-Euphrates Basin have had decades of peaceful relations, specifically from the 1920s until the



1950s (Ibid.). It is possible to see how the riparian states of the Tigris-Euphrates Basin have a history of sharing the water resources until the 1960s, when water projects started to be part of the national agendas and took a more significant role within the state-building strategies. Indeed, it is between 1960 and 1980 that water relations became more complicated. Countries blamed each other for water uses that were conceived as intolerable, and it was Saudi Arabia as a mediator that deterred what seemed to be leading to a water war (Mehring et al. 2013., 70). The case of the Tigris-Euphrates rivers is of interest for this research due to the involvement of three young countries in the Middle East and the different positions of these countries throughout the rivers flow.

Overall, the Tigris-Euphrates Basin has seen different periods of time with regards to water allocation among the riparian states. While the basin has had a long history of sharing the water resources of both the Tigris and Euphrates rivers, mostly between the 1920s and the 1950s, the newly established states confronted issues when implementing their national plans for water development. These disagreements over the use of the transboundary waters, however, led to a trend of more cooperative perspectives from which the riparian states reached agreements and protocols. Although these formal agreements are part of what this study considers as water politics or hydro politics, it is of interest to study the role of this politics in the prevention of further conflict and the consolidation of cooperation over transboundary waters like that of the Tigris and Euphrates rivers. For this reason, the next section will investigate the extent to which hydro politics has had a key role in this progress.

## **2.2 Hydro politics in the Tigris-Euphrates River Basin**

The hydro political scenario of the Tigris-Euphrates river system began to take form in the late 1960s. It was in this decade that the riparian states launched projects that were focused on irrigation (Kibaroglu and Scheumann 2013, 282). The significance of the two rivers for Turkey, Syria and Iraq is considerably large. Iraq makes use of both rivers in order to obtain a great part of its freshwater, the Euphrates is the most strategically important basin for Syria for its agricultural and hydropower uses, and the Tigris-Euphrates constitutes “nearly a third of the country’s surface water resources and a fifth of its irrigable land” (Ibid., 282). It is for this reason that the river system calls for a coordinated approach towards its water management. Initially, however, the transboundary waters of the rivers were managed from a domestic position and riparian countries were not concerned with hydro politics at the regional level (Ibid., 283). For instance, historical data shows how water politics started to emerge in the region during the 1920s.

The first case of water agreements in the basin took place in 1920 when the French and the British, who were by then mandatory governments, reached an agreement describing the future management of the waters of the Tigris-Euphrates by Syria and Iraq (Dohrmann and Hatem 2014, 574). This agreement led to further negotiations and protocols. In 1926 and 1930, the Turco-French Protocols took place, which aimed at addressing the water use of the Euphrates river (Ibid., 574). Although this agreement had a great impact in the Turco-Iraqi relations, as will be seen in the following paragraphs, it is important to highlight how the Tigris-Euphrates Basin is characterised by different relationships and interests.

An emphasis needs to be given to the Treaty of Friendship and Good Neighborly Relations. As previously mentioned in the methodology section and according to the WCQ 2017, the relationship between Turkey and Iraq scored 53,33 (112), which means that the Turco-Iraqi relations with regards to water are rather positive and that the risk of a water-related conflict is very low. In fact, nowadays “tensions between the two countries are improving” (Dohrmann and Hatem 2014, 578). This relationship is of special interest because, compared to the relationships Iraq-Syria and Syria-Turkey, it provides an example of a positive hydropolitical stance within the Tigris-Euphrates Basin. The Treaty of Friendship and Good Neighborly Relations was signed in May 1946, and it described the commitment of both Turkey and Iraq to “share related data, consult with each other over usage of the waters, and establish a committee to implement agreements” (Ibid., 575). This treaty marked a turning point in Turco-Iraqi water relations. Indeed, this agreement established the start of a long era of cooperation between Turkey and Iraq concerning water management (Ibid., 576). It was during the 1960s that several national water projects by the three different countries challenged this stable cooperation and consequently led to tensions among the riparian states (Ibid.).

The 1960s became a major game changer in the basin’s hydropolitics. The different interests risen from the national water projects brought disagreements over the transboundary waters’ use (Kibaroglu and Scheumann 2013, 285). The existing water relations between Turkey and Iraq encountered tensions. Iraq made constant efforts to urge Turkey to increase its water flow, but Turkey kept suggesting the creation of a Joint Technical Committee (JTC) and the negotiations did not reach any final agreement (Ibid., 285). This represents the lack of effective agreements in this decade and highlights the influence that national interests had in the pursuit of regional cooperation, even between two countries that peacefully cooperated during decades. It is also worth noting how the downstream nature of the river had an influence in Iraq’s insistence. Dr. Rashid, Iraq’s minister of water resources by then, once stated the following: “Our neighboring countries need to get the message that it is our

right to get our share of water and (...) we should have a say in their operational procedures because we are downstream” (Dohrmann and Hatem 2014, 577). The downstream character of the river leads to an implicit water dispute over its transboundary waters and to dissimilar power positions among the countries.

The absence of agreements addressing the different interests of the riparian countries led to a regional political crisis in 1975 (Kibaroglu and Scheumann 2013, 285). The late 1970s were characterised by increasing tensions among the riparian countries. During these years, Turkey and Syria depleted the available water resources of the rivers despite severe drought, which led the three riparian countries to blame each other (Ibid., 285). In this context, it is possible to argue that the lack of attention given to hydropolitics led to further conflict. It is necessary, however, to consider Kibaroglu and Scheumann’s argument that “it was not a water-sharing crisis per se, but rather the beginning of the use of water as a political lever in nonriparian issues” (Ibid.). For instance, the growing tensions among the riparian countries moved the water dispute into the sphere of high politics (Ibid., 286). The regional hydropolitics therefore reached in this decade considerable attention. This increasing awareness about the significance of water politics within the wider political spectrum further influenced the trend towards cooperation that would be observed in the next decades.

Due to this hostile scenario, Iraq did not persist in its intention to establish the JTC, and the riparian countries finally agreed on its creation in 1983 (Ibid.). However, after over fifteen meetings and negotiations, the JTC was unable to reach any agreement and the discussions were interrupted (Ibid.). Although the water issue gained special attention and was regarded as an important concern within the wider political scheme, it is possible to see the influence of other political factors in the hydropolitical relations among the riparian countries. For instance, Kibaroglu and Scheumann indicate that “a careful examination of the records of the negotiations among the riparian states, and their failure, shows that nonwater issues (...) played a decisive part in the growth of tension and disputes” (Ibid.). It is necessary to look into these dynamics in order to fully understand the hydropolitical situation of the Tigris-Euphrates Basin as well as to obtain deep insights on the role of water politics in the prevention of interstate conflict over these transboundary waters. When determining and analyzing the role of the JTC in the prevention of conflict, it is possible to argue that, to an extent, it did enhance cooperation. As explained by Ünver and Kibaroglu, although it may seem like the JTC did not fulfill its mission, it did strengthen and reinforce communication among the different parties in order to discuss water allocation (2000, 318). Based on this argument and the previous historical data, the JTC was established to function as a space for discussions, negotiations and agreements. It is

possible to assert that the riparian countries and their nonwater political interests are held accountable for the lack of an effective outcome from these negotiations.

Furthermore, the case of the Tigris-Euphrates Basin touches on the concept of interdependence. According to Ünver and Kibaroglu, when there exists interdependence among different riparian countries over shared waters, a riparian state might tend to take a cooperative or a hostile stance (Ibid., 320). In this case, and looking back at the failure of the riparian countries to reach an agreement through the JTC, it comes to attention how the hostile position of the countries was able to shape and drive the negotiations towards an ineffective outcome. This failure also challenges Deudney's theory, to be found in the theoretical framework section of this paper, who argues that this type of cases create a mutual hostage situation that will most likely lead to cooperation (1991, 26). The hydropolitical scenario in the Tigris-Euphrates Basin during and after the JTC negotiations is characterised by hostility, unwillingness to take a flexible stance, and therefore lack of cooperation.

After the failure to reach a general agreement through the JTC, several bilateral negotiations attempted to settle the water dispute. However, a major cause of ineffectiveness of these talks was that they were rather focused in water quantity. Indeed, "the riparians could not agree on more comprehensive forms of cooperation that would adopt an integrated approach to the various aspects of water use and needs (...) and might potentially facilitate negotiations by linking water management issues" (Kibaroglu and Scheumann 2013, 288). The hostile position of the riparian countries seemed to be again on the way, and did not facilitate any further agreement. Furthermore, according to Kibaroglu and Scheumann, there was a lack of organization and shared control (Ibid.). Regional cooperation encountered issues due to the strong national interests of each of the riparian countries. Turkey, Syria and Iraq were mainly concerned with their political and economic development and gave special attention to strategic goals, like achieving food self-sufficiency (Ibid.). It was this focus on the national strategies and the unwillingness to give up part of their water capacity that made regional cooperation incompatible with the national plans (Ibid.).

Despite the constant attempts and consequent failures in the past to establish an effective regional cooperation over the transboundary waters of the Tigris and Euphrates rivers, cooperation started to take form in the region from the 1990s onwards. As states by Kibaroglu and Maden, "between late 1990s and the first decade of 2000s (...), one may observe better cooperation and more productive conditions for transboundary water coordination in the region" (2014, 351). This advancement was, to a great extent, due to a strong reconciliation between Turkey and Syria (Ibid.).

By establishing new points of contact and agreements, the countries enhanced conversations at the hydropolitical level. This seems to indicate that it was the wider Turco-Syrian rapprochement that had an influence in the further trend towards water cooperation. Because of this, it is necessary to investigate this process in a deeper way.

Water politics in the Tigris-Euphrates Basin have been influenced by Turkey's GAP project, also known as the Southeastern Anatolia Project. This project involves different development and irrigation plans for the Tigris-Euphrates river system and it constitutes "the largest internal development project in Turkey and is also one of the largest in the world" (Dohrmann and Hatem 2014, 572). As a consequence, the GAP project has had a profound influence in the hydropolitical scenario of the region. The reason behind this influence lies in how it requires, in essence, a decrease in the water quantity and quality of water streaming towards Syria (Ibid., 579). This matter goes back to the downstream nature of the river system, and it touches on the repercussion it has in shaping hydropolitical relations among the riparian countries. Turkey's commitment to its plans did indeed contribute to negatively affecting its relationships with both Iraq and Syria, who saw it as a security threat (Ibid., 583). Specifically, GAP grew "into a catch-all development project that the Turkish government uses as a political tool tailored to the needs of the day" (Ibid., 573). For this reason, Syria's concern eventually led to an increase in tensions between the two countries, mostly during the 1980s since this decade saw an advancement of GAP (Ibid.). However, it is worth highlighting the point made by Dohrmann and Hatem, who argue that this issue cannot be completely regarded as the main root for tensions between the two countries and that "in spite of the potential consequences of GAP, both Turkey and Syria have in recent years sought to improve their relationship outside of the water issue" (Ibid., 580). Although GAP represented a big challenge to Turkey's neighbours, the trend towards a more friendly relationship clearly indicates that the water issue did not entirely frame hydropolitical relations, and that external factors had an important influence in the establishment of a more cooperative framework between the two riparian countries. For instance, according to Dohrmann and Hatem, the relations between Turkey and Syria had been seeing tension even before the GAP project, and the relations between Turkey and Iraq have not been affected to a large extent by GAP, but by broader political interests (Ibid., 583). This conclusion on the Turco-Syrian water relations allows to confirm that an improvement in the advancement of cooperation between the riparian countries has not been driven by hydropolitics but rather by the wider political scenario.

### **2.3 Hydropolitical status quo of the Tigris-Euphrates Rivers**

When looking at the hydropolitical status quo of the Tigris-Euphrates Rivers, the ECC Factbook also offers an overview of the cooperation between Turkey, Syria and Iraq. However, the report is rather negative when describing the situation in the Tigris-Euphrates Basin. It declares that there is no improvement concerning the capacity of the riparian countries to address potential grievances that can potentially take place in the future (ECC, 6). Indeed, the report highlights that, although there has been an effort to cooperate since the 2000s, collaboration between the three countries over the shared waters of the Tigris-Euphrates rivers has decreased (Ibid., 5). Taking into account the environmental challenges that the basin is likely to encounter in the coming decades, the ECC Factbook states it is necessary for the riparian countries to establish a trilateral agreement (Ibid., 7). Certainly, after considering this information, it is possible to assert the bilateral agreements have become unsuccessful in establishing effective cooperation in the basin. According to Al-Ansari, these bilateral efforts are not sufficient for a regional approach towards cooperation (2016, 153).

Daoudy adds that “the situation in the Euphrates and Tigris adds a layer of complexity because actors are not merely concerned with problems of enforcing optimal distribution of water, but are ultimately concerned to achieve an enforceable security arrangement” (2009, 382). Regional hydropolitics in the basin has clearly seen a transformation, but the outcome has not been that favorable if compared to other cases like the Jordan River. Furthermore, it is worth stressing that the negotiation process over the waters of the Tigris and the Euphrates rivers has seen both cooperation and conflict, but there has been a significant presence of tensions between the countries until the 2000s (Ibid.).

The presented data goes in accordance with the score obtained by the cooperation over the Tigris-Euphrates in the WCQ 2017. As previously explained, although the relationship Iraq-Turkey obtained a positive score of 53,33, the relationships Iraq-Syria and Syria-Turkey got a score of 3,33, which illustrates the existing tensions between these countries. When analyzing the resolution process of the conflict, the ECC Factbook concludes that “grievances have been mostly ignored” (Ibid., 6). This can indeed be seen in the analytical section of hydropolitics in the basin. It was observed how the riparian countries showed an unwillingness to give up part of their plans in order to finally reach

regional cooperation, and this can be a main cause for the negative score obtained by the countries in the WCQ 2017.

The hydropolitical status quo of the Tigris-Euphrates Basin has been shaped by both this unwillingness and the lack of agreement with regards to various issues, like terminology. For instance, the three riparian countries have not reached any agreement on how to define the river system, since Turkey considers it to be a ‘transboundary water system’, while Iraq and Syria see it as ‘international water’ (Voza et al. 2012, 60). This disagreement is also based on the natural condition of the river system. The claims made by Turkey are based on its condition of being the upstream country and having sovereignty over the rivers’ waters (Ibid.). On the contrary, Iraq and Syria contend that, as riparian states, all countries with access to the rivers have the same rights since they are international waters (Ibid.). This situation goes back to the condition of the river as a root for disagreement. The fact that the Tigris and Euphrates are transboundary and downstream rivers will inevitably carry complications in itself.

As in any other water conflict, the broader political framework of the Tigris-Euphrates Basin has had an impact in the regional hydropolitical situation. According to Voza et al., “the separation of the water issue from the wider security concerns, such as the Kurdish issue and a focus on regional under-development and optimal utilization of water resources, could be an instrument in building regional cooperation in the Middle East” (Ibid., 64). At the same time, it is common understanding and a lesson from the past that a water conflict of this type is not often solved in isolation from the wider political scheme of the region (Ibid.). Water politics, being influenced by regional politics, has led the Tigris-Euphrates Basin to be a reflection of the prevailing power relations among the riparian countries. The hydropolitical status quo of the basin serves as an example of the impact that the approach taken by the riparian countries has in the functioning of water politics.

## **Chapter 3: Comparison of the hydropolitical mechanisms in the Jordan River and the Tigris-Euphrates Rivers**

### **3.1 Comparison of the hydropolitical dynamics in the Jordan River and the Tigris-Euphrates Rivers**

The hydropolitical dynamics in the Jordan River and the Tigris-Euphrates basins can be compared in terms of different aspects, processes and influential factors. This section aims at comparing these dynamics in order to gain a better understanding of how water politics have functioned and how they have had an influence in the hydropolitical status quo of the two basins. For this, section 1.1 and section 2.1 will be compared by looking at those specific measures and procedures that have allowed the basins to reach the current status quo. In an effort to do this, several points of interest can be highlighted: timeframe, external actors, wider political context, national interests, cooperation initiatives, and nature of the rivers. These aspects have been discussed in Chapter 1 and Chapter 2, and can provide the analysis with guidance on the most significant characteristics of water politics in the two case studies.

First, concerning the timeframe and the general process of the development of hydropolitics in the basins, various characteristics can be observed. Although state-building commenced around the same time for all countries in the region, the riparian countries of the Tigris-Euphrates seemed to show more interest in the management of water resources earlier than those of the Jordan River. However, the former were still mandates, and the commencement of water discussions were therefore impulsed by the British and French mandates in the 1920s. For the Jordan River's riparian states, the beginning of water politics can be established later, in the 1950s. While cooperation efforts in this basin began earlier, it was during the 1950s that the American mediation gave form to the negotiations and agreements stemming from the discussions between Israel and Jordan. In addition, there is a need to compare the development of hydropolitics in the two cases. The cooperation over the Jordan River's waters has seen a steady progression towards a rather stable and effective cooperation. In contrast, the cooperation over the Tigris-Euphrates' waters has been slower, and it has not shown any significant positive change indicating an advancement in the pursuit of cooperation. In this respect, the hydropolitical dynamics in the Jordan River seem to have performed better throughout time.



The second point of interest is concerned with the appearance or presence of external actors and mediators in the hydropolitical scenario of the two basins. Water politics were, since the 1920s, shaped by the cooperation efforts between the British and French mandatory governments in the Tigris-Euphrates Basin. These early efforts also enhanced further Turco-Iraqi relations due to the Treaty of Friendship and Good Neighborly Relations. As discussed in section 2.2, this might partially explain for the positive score obtained by the two countries with regards to water cooperation in the WCQ 2017. Although the relationship between these two countries has encountered challenges, it is still today stable if compared to those of Iraq-Syria and Syria-Turkey. In the Jordan River Basin, the United States acted as a mediator in the 1950s, promoting dialogue and cooperation.. Through the Johnston Plan, the American mediation strengthened the idea of a regional approach towards water management in the basin. It was then that the riparian countries of the Jordan River began to understand the benefits of a joint cooperation over the shared waters. The American appearance in the regional hydropolitical scenario contributed, in some way or another, in increasing awareness on the relevance of water management as part of both national and regional development. The main difference between the two basins with regards to the role of external actors is that, while the riparian countries of the Jordan River benefited from a mediation throughout the 1950s that clearly facilitated communication among the parties, the riparian countries of the Tigris-Euphrates Basin did not enjoy a strong and neutral mediation of this kind. This condition might be, to an extent, an explanation behind the lack of positive progress in the basin regarding water cooperation.

The third point to consider is the influence of the wider political conflict in the regional hydropolitics of the basins. Certainly, it is possible to observe that, in both cases, the broader politics of the region have had an impact in the dynamics of water politics. This, however, has happened to a greater extent in the Jordan River Basin. Section 1.2 showed how the long-standing dispute existing between Israel and the Arab states has framed the hydropolitical relations between Israel and Jordan over the waters of the Jordan River. More specifically, the narrative pertaining to the Israeli-Palestinian conflict was the main driver behind the negotiations over the shared waters. Both parties reacted to the proposed Johnston Plan on the basis of ideological or national interests with counter-proposals. Jordan's decisions throughout the negotiation process were highly influenced by the broader Arab interest in deterring any Israeli progress, while those of Israel were strongly driven by its national development goals, focused on strengthening its presence as a new independent state in the region. These, however, will be compared in a deeper way in the following paragraph. In the context of the Tigris-Euphrates Basin, section 2.2 demonstrated how the Turco-Syrian rapprochement led to a more cooperative stance by the riparian countries with regards to water management. In this sense, a good step in the relationship between Turkey and Syria provided the means for improvement

in the water domain as well. While the broader political dispute affected negatively in the hydropolitics of the Jordan River Basin due to the strong influence of the Israeli-Palestinian conflict, for the Tigris-Euphrates Basin the wider political conflict had a positive effect as seen in how the rapprochement between Turkey and Syria led to more stable relations with regards to water as well.

The fourth point of interest touches on the national interests of the concerned parties and their role in the establishment and development of cooperation at the basin level. As already mentioned in the previous paragraph, national interests comprise an important factor in the hydropolitical negotiations in both cases. In the case of the Jordan River Basin, both Israel and Jordan have acted in accordance with their state-building and national development goals, but at the same time both have demonstrated their understanding of the benefits that cooperation carries by improving their relationship and collaboration over water. In the case of the Tigris-Euphrates Basin, the three riparian countries have seen how their national projects were not compatible as well as not doable, but they have shown a lack of willingness to give up part of these plans in furtherance of the common goal that is cooperation. This lack of awareness on the benefits of water cooperation has, for decades, led the riparian countries of this basin to take a hostile stance towards this interdependence. While the Jordan River Basin has seen flexibility and improvement, the Tigris-Euphrates Basin has encountered a conflict of interests, one in which the riparian countries consider their national interests to be more important than the stability that cooperation can offer. The capacity demonstrated by the riparian countries of the Jordan River to reach a rather stable cooperation can be somewhat associated to their commitment in solving the long-lasting water dispute that was not in any way beneficial for any of the two parties.

The fifth point worth comparing is the cooperation initiatives in both cases. Water politics have functioned differently in the Jordan River Basin and in the Tigris-Euphrates Basin, and this can be seen in the various cooperation initiatives that have been either attempted, established, or developed. In the case of the Jordan River, the Johnston Plan represented a prominent cooperation initiative in the basin. Developed by the United States, it boosted the cooperation efforts by actively involving the parties in negotiations and discussions over the shared waters. By doing this, American mediation started what would become the hydropolitical dynamics in the basin, and it provided both Israel and Jordan with the opportunity to present a counterproposal in an effort to find a balance and establish stability through a joint water cooperation. In the case of the basin of the Tigris-Euphrates rivers, this type of initiatives have not evolved in the same way as they did in the case of the Jordan River. For instance, while Turkey gave much attention to the creation of a Joint Technical Committee, Syria and Iraq were rather skeptical. In the end, the JTC was not as successful as expected, and

although it did enhance communication among the riparian countries, it did not lead to any final agreement, consequently taking the countries into political tensions. Bilateral negotiations have also been part of the hydropolitical dynamics of the Tigris-Euphrates Basin, but these have not resulted effective either, characterising the region with constant attempts at reaching an adequate cooperation, but with no efficient outcome.

Lastly, the sixth point of interest for this comparison involves the nature of the rivers and its effect on the hydropolitical dynamics in the basins. The riparian countries are conditioned to the natural character of the river and to the consequent difference in power relations. On the one hand, the situation of the Jordan River as an international crossing border has made it subject to the wider political dispute existing between Israel and Jordan, or more broadly between Israel and the Arab states. It is for this reason that the nature of the river has had implications in the water politics of the basin. On the other hand, water politics in the Tigris-Euphrates Basin has been exposed to the power relations established by the downstream nature of the rivers. Indeed, section 2.2 demonstrated how Turkey's GAP project represented a threat to Syria's water quantity. The downstream nature of the river system, however, might have a greater implication for the riparian countries, since as a consequence conditioned to the distinct power hold by those countries located upstream, as it happens with Turkey in the Tigris-Euphrates basin. Therefore, this characteristic of the river can partially be held accountable for the long-standing dissimilar power positions kept by the countries along the Jordan River. It is possible to notice how the hydropolitical dynamics have functioned differently in the Jordan River Basin and the Tigris-Euphrates Basin. For the former, its situation as a crossing border has meant that it surpasses the water issue and it has been direct subject of the broader Israeli-Palestinian conflict with the Arab states. Consequently, the river's water has been politicised. For the latter, its downstream nature has increased tensions among the riparian countries due to the unbalanced power position of the countries concerning the control held by the countries located upstream over the amount of water flowing downstream. However, the association made between the nature of the rivers and its hydropolitical dynamics, although significant in these circumstances, might be limited to these case studies.

By comparing the hydropolitical dynamics of the two basins on the basis of these six points of interest, several observations can be highlighted. First, hydropolitics seem to have developed faster in the Jordan River Basin than in the Tigris-Euphrates Basin, being this mostly caused by the different political scenarios of the two regions. Second, while the former mandatory governments present in the Tigris-Euphrates strengthened cooperation at the beginning, the Jordan River Basin seems to have benefited from the rather active and neutral mediation of the United States throughout years, further

reinforcing dialogue. Third, hydro politics have, in both cases, been influenced by the broader political spectrum of the regions. In the case of the Jordan River, the political conflict between Israel and the Arab states with regards to Palestine and the West Bank has shaped the reactions of these towards Israeli plans as well as their water relations in general. In the case of the Tigris-Euphrates Basin, the Turco-Syrian rapprochement and its effect in the water relations represents the influence of the wider political scenario in the development of hydro politics. Fourth, although national interests and development goals at the national level constitute important factors for the different riparian countries, those of the Jordan River seem to be aware of the benefits brought by cooperation, while those of the Tigris-Euphrates are more skeptical towards giving up on some of their interest in furtherance of water cooperation. Fifth, there have been more cooperation initiatives in the Jordan River Basin than in the Tigris-Euphrates Basin, both in terms of commitment and effective agreements. Finally, it has come to attention that the natural characteristics of the rivers have had a strong repercussion in the overall hydro political dynamics of the two basins.

### **3.2 Comparison of the hydro political status quo in the Jordan River and the Tigris-Euphrates Rivers**

The status quo of the water cooperation in the two river basins are also different. Sections 1.3 and 2.3 examined the two situations and provided insights into the two situations by looking at specific factors and aspects that play a role in shaping the cooperation over the shared waters. Several points are worth highlighting when comparing the status quo between the cases of the Jordan and the Tigris-Euphrates rivers. First, it is possible to compare the capacity to address disputes. Second, the trend towards collaboration or conflict over the shared waters. Third, in a more general perspective, the score obtained in the WCQ 2017, which has been briefly introduced throughout the previous chapters. These points will serve as a framework in order to compare the hydro political situation of the two case studies.

The first point to compare is the capacity to address potential future disputes that could take place between the riparian countries. In the case of the Jordan River, section 1.3 showed how there has been an improvement with this regard (ECC, 7). For instance, a large part of the water dispute has, according to the ECC, been addressed (Ibid.), which further contributes to the positive hydro political status quo of the Jordan River. In this sense, Israel and Jordan have learnt how to solve any disagreement over their shared waters. This is an advantage for the purpose that water cooperation

entails, since the riparian countries have demonstrated a capacity to develop and improve a strong foundation driving their water relations. Water cooperation, as seen in section 1.3, proves beneficial for both countries in terms of economic and social development, but there still exist tensions, specifically concerning the Israeli occupation of the West Bank. In the case of the Tigris-Euphrates, Section 2.3, however, showed a different situation for the cooperation between Iraq, Turkey and Syria. In this case, it was possible to observe that there was no improvement concerning the capacity of the riparian countries to address a potential grievance (ECC, 6). This can be explained by the little importance given by the riparian countries to address their grievances. Indeed, section 2.3 saw a lack of both willingness and agreement in addressing issues like terminology. Moreover, it showed the dominance of power relations that still exist and that further impedes effective water cooperation in the Tigris-Euphrates Basin.

The second point worth comparing is the trend shown by the two set of countries towards further collaboration or conflict. While section 1.3 revealed that the established cooperation over the Jordan River shared waters is seeing a decrease in conflict intensity (ECC, 7), section 2.3 showed how collaboration between the riparian countries of the Tigris-Euphrates rivers is seeing a substantial decrease (ECC, 5). This difference is further exacerbated by the lack of agreement to address water issues demonstrated by the riparian countries of the Tigris-Euphrates. Certainly, the riparian countries of the Jordan River are showing an increasing commitment to both maintaining and expanding their water cooperation. The riparian countries of the Tigris-Euphrates, in contrast, seem to still be considering how to nurture the cooperation over the shared waters.

Finally, from a broader standpoint, it is worth comparing how the two status quo differ in more general terms. Although the WCQ attempts to give predictions in the short-run, it is based on past and current instances, therefore illustrating the most current status quo of the hydro-political situation of each case study. Keeping this in mind, it is possible to argue that it shows a general overview of the cases. As previously explained, the WCQ 2017 ranked the cooperation over the Jordan River with a low risk of water-related conflict. The cooperation over the Tigris-Euphrates rivers was, however, ranked with a high risk of this type of conflict. The WCQ 2017 also provides more specific details on the water relations between the countries and the current status quo of the water cooperation in the two regions. The following tables illustrate these details and divides them in areas of water cooperation. Table 3 shows how Israel and Jordan have obtained a positive score for water infrastructure, institutional functioning, and floods, droughts and ecosystem protection. At the same time, the table displays the limited importance that has been given by these countries to agreement, communication mechanism, technical projects and exchange of data. Table 4, making

reference to the relations among the riparian countries of the Tigris-Euphrates rivers, shows a more divided cooperation. While Iraq and Turkey obtained a rather positive score for their overall cooperation, like Jordan and Israel, the cooperation Iraq-Syria and Syria-Turkey was ranked with a rather negative score.

Table 3. Jordan River Water Cooperation

	Israel-Jordan
Agreement	1
Communication mechanism	1
Technical projects	1
Exchange of data	1
Alternative dispute resolution	0
Floods, droughts and ecosystem protection	3
Water infrastructure	5
Inclusion	0
Political commitment	0
Institutional functioning	5
<b>SCORE</b>	<b>17/30</b>
<b>WCQ</b>	<b>56.67</b>

Source: Waslekar and Futehally, *Water Cooperation Quotient*, (2017)

Table 4. Tigris-Euphrates Water Cooperation

	Iraq-Turkey (Tigris and Euphrates)	Iraq-Syria (Tigris and Euphrates)	Syria-Turkey (Tigris and Euphrates)
	1	1	1
	1	0	0
	1	0	0
	0	0	0
	0	0	0
	3	0	0
	5	0	0
	0	0	0
	5	0	0
	0	0	0
	<b>16/30</b>	<b>1/30</b>	<b>1/30</b>
	<b>53.33</b>	<b>3.33</b>	<b>3.33</b>

Source: Waslekar and Futehally, *Water Cooperation Quotient*, (2017)

After looking at these tables, it is possible to argue that the number of countries involved in the water cooperation over the Tigris-Euphrates rivers has had an impact in the outcome. In this case, it can be argued that, in contrast to the water cooperation over the Jordan River, the hydro-political status quo is more sophisticated and dependent on a larger number of factors, since more riparian countries take part in this cooperation. The water relations between, on the one hand Iraq and Syria, and on the other hand Syria and Turkey, have led the broader water cooperation among the three riparian countries to be negatively affected. While cooperation between Iraq and Turkey seems to be positive and constructive, the characteristic number of riparian countries taking part in this cooperation has had an impact in the score obtained by the wider water cooperation.

Overall, it is possible to conclude that the hydropolitical status quo of the two case studies is different in a number of ways. On the one hand, the hydropolitical status quo of the Jordan River presents a stable collaboration and a steady improvement with regards to the capacity of the riparian countries to address potential disputes. In addition, it shows a very well defined trend towards further cooperation, which can be seen in the decrease of conflict intensity. On the other hand, the hydropolitical status quo of the Tigris-Euphrates rivers presents a more unstable cooperation, characterised by a lack of improvement in addressing disputes as well as a decrease in collaboration among the riparian countries. While the water cooperation between Jordan and Israel seems to be efficiently based on its institutional functioning and water infrastructure, the water cooperation among Iraq, Syria and Turkey is widely influenced by the lack of progress in the relations specifically between Iraq and Syria, and Syria and Turkey. Altogether, the current hydropolitical status quo in both regions can be attributed to the stance taken by the countries. In other words, while the riparian countries of the Jordan River has seen hydropolitics as an opportunity to enhance water cooperation and reach agreements concerning this matter, those of the Tigris-Euphrates have taken a more rigid position and not taken advantage, which has led the cooperation to lack any efficient progress.

#### **Chapter 4: Discussion**

The main aim of this research was to study the role played by hydropolitics in the prevention of interstate conflict over transboundary waters in two different case studies. After analyzing their hydropolitical dynamics and their general status quo in terms of water cooperation, it was possible to find points of comparison between the cases. In furtherance of presenting the main findings of each of the case studies, this section provides the reader with the most significant observations that have been obtained from the previous chapters and relates them to the research question.

In the first case study, the Jordan River, it has been possible to observe an accelerating trend towards cooperation between Jordan and Israel. Ever since the moment the United States took an active role as a mediator in the water dispute between the two riparian countries, the number of negotiations and discussions have increased. In other words, after the American promotion of water politics, the Jordan River Basin has seen a growing attention being paid to water diplomacy and a growing awareness on the benefits brought by cooperation. At the same time, the emergence of a regional approach towards hydropolitics also contributed to the advancement of water cooperation.

The natural characteristics of the Jordan River have also had an impact in the rapid, and arguably easy, commencement and development of water politics. Although Palestine has proved to have an important role in the water politics of the region, the major riparians have successfully established a cooperation structure that, according to the previous analysis, seems to keep improving. On the one hand, with regards to the number of riparian countries in the basin, Jordan and Israel, by being two countries, have been able to reach agreements on a one-to-one basis. Therefore, the limited amount of riparian countries has proved to be beneficial in this case. On the other hand, with regards to the crossing border nature of the river, it is possible to observe asymmetric power relations between the two countries. These symmetry can be perceived in the capability of both Jordan and Israel to react to the Johnston Plan as proposed by the United States, and propose conditions through negotiations on water allocation specifically. At the same time, the dependence of both riparian countries on the same water resource and their commitment to cooperation further supports the previously introduced argument made by Deudney, which claims that a mutual hostage situation over transboundary waters will lead to cooperation (1991, 26).

In the second case study, the Tigris-Euphrates rivers, it has been observed that, although several attempts have been made, cooperation has not proved as successful as in the Jordan River. The existing interdependence among Turkey, Iraq and Syria has given form to water politics in the region and has shaped its functioning since the beginning. On the one hand, regarding the number of riparian countries found in the Tigris-Euphrates Basin, the fact that the cooperation involves three countries has further complicated a rapid progress, since the water relations between the countries are interdependent. At the same time, and as a consequence of the number of countries, this has prompted the water dispute to be influenced by a larger and wider political context that can negatively impact any water advancement. On the other hand, concerning the nature of the river, it has been possible to note how its downstream characteristic has led to asymmetric power relations. Turkey, due to its upstream position in the river system, has for a long time held much more control over the water flow. As observed in the previous chapters, it has been this condition and the focus on water allocation that has impeded more agreements among the riparian countries.

The most obvious finding to emerge from the analysis is that hydropolitics have worked in a different way in the two case studies investigated. It is important to note, however, that the different characteristics of the cases are key in shaping the functioning of water politics in the regions. Perhaps the most interesting finding is that, despite the influence of the long-standing conflict between the Arab states and Israel, Jordan and Israel have managed to establish a growing trend towards more water cooperation. As observed throughout the analytical chapters, the wider political context of the



region has had a significant impact in the hydropolitical water situation in the two case studies. However, it is somewhat surprising that the large importance given to the shared waters of the Jordan River has led the countries to transcend their political differences and cooperate. This finding is compatible with the arguments made by Deudney (1991) and Dolatyar et al. (2000). For instance, as observed from the case studies investigated, hydro politics enhance dialogue and act as a means in the advancement towards cooperation, but its efficiency rests on the stance taken by the riparian countries with regards to reaching an agreement and cooperating over the shared waters. While the riparian countries of the Jordan River have demonstrated a significant interest in making use of water politics and subsequently improving their water cooperation, those of the Tigris-Euphrates have shown more hesitation in the purpose behind negotiations and agreements as they have displayed a particular focus on their national goals and interests.

Moreover, consistent with the literature, this research found that there is indeed a tendency towards cooperation over shared water resources. The Jordan River offers an example of how hydro politics have been increasingly taking part in the regional approach towards water, and it serves as an example of the correlation existing between hydro politics and cooperation. The case of the Tigris-Euphrates river system is different with regards to the role played by hydro politics. While the Jordan River has seen a prominent commitment by the riparian countries in discussions and negotiations around water politics in the region, the Tigris-Euphrates has encountered more challenges in the path towards cooperation due to a lack of effective engagement. The riparian countries of the Tigris-Euphrates rivers have not been able to reach any important agreement that guarantees a cooperation as stable as that over the Jordan River. As seen in sections 1.3 and 2.3, the water cooperation over the Jordan River has a more substantial and solid scheme compared to that over the Tigris-Euphrates, which is quite more uncertain and ambiguous. With a higher risk of a water-related conflict, the hydro political status quo of the latter case study can, to an extent, be explained by the inefficient use of water politics in the basin. This further highlights the importance of riparian countries in taking a responsive stance towards the water dispute and emphasizes the need for an effective use of water politics.

Overall, it is now understood that hydro politics plays an important role in the prevention of interstate conflict by enhancing cooperation among the riparian countries. Certainly, taking the previously mentioned limitations into consideration, it is possible to argue that water politics fosters dialogue and negotiation, which further boosts cooperation and reduces tensions leading to conflict. In general, as observed in the current study, this type of politics has contributed in the prevention of conflict over transboundary waters. However, it is also worth noting that the effectiveness of water

politics goes beyond their use, since it is also dependent on the stance taken by riparian countries towards its aim and general utilization.

## **Part 5: Conclusion**

This study set out to gain a better understanding of the role of water politics in the prevention of interstate conflict over transboundary waters. Specifically, it examined this relationship by studying the relationship between hydro politics and cooperation in an effort to contribute to the study of water governance from an international perspective. For this purpose, this research has investigated the functioning of hydro politics as well as the general hydro political status quo of two different case studies: the Jordan River, and the Tigris-Euphrates rivers. This case selection has allowed this study to obtain different data and observations.

After analyzing both their hydro political dynamics and their status quo with regards to water cooperation, several conclusions can be made. First, the findings clearly indicate that hydro politics have worked differently in the case studies compared. As this investigation has shown, it is important to note that the cases selected are different in nature. While the Jordan River is border crossing in nature and its water cooperation comprises two countries, the Tigris-Euphrates river system is essentially characterized for being a downstream river and its water cooperation encompasses three countries. On the basis of these differences, this study aimed to determine the extent to which water politics have worked in the two case studies. It has been possible to observe a more active presence of hydro politics in the case of the Jordan River, coinciding with a better and much more successful water cooperation between Israel and Jordan. Second, this investigation confirmed that countries will tend to cooperate instead of fight over shared water resources. Contrary to the Water Wars rationale by Starr (1991), this research has been able to show that, due to a shared interest, riparian countries will generally try to solve their water disputes through cooperation. This has been observed with more emphasis in the case of the Jordan River, however it has also been possible to recognize this phenomenon in the case of the Tigris-Euphrates to a lesser extent. For instance, the Jordan River represents an optimal case to challenge the Water Wars rationale.

Overall, returning to the question posed at the beginning of this study and on the basis of the findings obtained, it is now possible to state that this paper supports the idea that hydro politics has played a significant role in the prevention of interstate conflict over transboundary waters. As seen in the case of the Jordan River, a growing use of water politics to solve disagreements over water resources has coincided with an increasing cooperation and a decreasing risk of water-related conflict

between the two riparian countries. The case of the Tigris-Euphrates has offered this research with a different standpoint, in which the lack or dismiss of hydro politics has led the riparian countries to not make any progress with regards to their water cooperation and coinciding with a higher risk of water-related conflict. As a whole, this research has identified a strong association between hydro politics and the prevention of interstate conflict, as observed from the growing cooperation following an increasing attention paid to water politics. The second case study serves as an example of how water politics function differently in certain cases. Indeed, hydro politics in the Tigris-Euphrates have been confronted with a stringent stance taken by the riparian countries. However, since the aim of this research was indeed to gain insights into the performance of this type of politics in different frameworks and scenarios, it is possible to contend that, although dependent on the situation, hydro politics have demonstrated to contribute in the prevention of conflict over transboundary water to a large extent. This conclusion is mostly seen in the case of the Jordan River Basin.

Taken together, these results suggest that, by enhancing cooperation, water politics have indeed changed the hydro political situation of a region and prevented a conflict from starting or developing. By making use of two different case studies, this research has been able to obtain observations on the role of water politics and its development in two contrasting settings. This method has enabled the study to investigate hydro politics in different contexts and determine the extent to which it has had an impact in cases that differ with regards to several factors. In this case, these distinct factors have been the number of riparian countries involved in the water cooperation and the nature of the river. Moreover, the findings of this investigation complement those of earlier studies on both hydro politics and water cooperation, and contradicts those linking transboundary waters and interstate conflict.

This paper has provided a deeper insight into transboundary water cooperation and it has gone some ways towards enhancing our understanding of hydro politics. It has, specifically, contributed with a practical approach. By testing the Water Wars Theory as introduced by Starr (1991), the contribution of this investigation has been able to confirm other existing theories on the issue, like that of Deudney (1991). Indeed, one of the strengths of this study is that it represents a comprehensive examination of the whole phenomenon of hydro politics from a case-centered standpoint. However, study limitations make an overall conclusion about this research difficult. With a small sample size, caution must be applied, as the findings might not be transferable to other case studies involving water cooperation. It is for this reason that the present study has not been able to make any generalization to a broader number of cases and it has focused on giving indications for these two specific case studies. Notwithstanding the relatively limited sample, this work offers valuable insights into the functions of

water politics in hindering interstate conflict over transboundary waters. It has indeed provided observations on its role and impact in two different cases. More research is needed to develop a deeper understanding of the relationship between hydro politics and the prevention of conflict. In terms of future work, it would be interesting to go beyond the scope of this study and clarify whether the positive role of hydro politics that has been observed in this research can be observed in a larger number of case studies.

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