TURKEY'S TRANSBOUNDARY WATER POLICY: DOMINANCE OF THE REALIST PARADIGM?

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ABSTRACT

TURKEY'S TRANSBOUNDARY WATER POLICY: DOMINANCE OF THE REALIST PARADIGM?

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Water is the most vital natural resource on the earth both for human and other species to survive. However, water is a scarce resource like other natural resources. Along with its essentiality for living things and natural life, water has been a key element for development in recent years. Rapid population growth, industrialization, global warming and climate change exacerbate water scarcity and water related conflicts especially in arid and semi-arid parts of the world. Therefore, water problem increasingly dominates international relations and foreign politics of countries which brings about the exigency of water politics. This thesis focuses on Turkey's transboundary water policy and aims to examine to what extent realism, one of the grand theories of the international relations discipline, is dominant on Turkish transboundary water politics. Realist paradigm is dominant over Turkey's transboundary water politics; however, there are a certain number of exceptions.

Keywords: Turkey's Transboundary Water Policy, Water Politics, International Relations, Realism, Realist Paradigm

ÖZ

TÜRKİYE'NİN SINIRAŞAN SU POLİTİKASI: REALİST PARADİGMANIN ETKİSİ?

Yakar, Funda

Yüksek Lisans, Ortadoğu Araştırmaları Bölümü

Tez Yöneticisi : Prof. Dr. Süha Bölükbaşıoğlu

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Su, hem insanlar hem de diğer canlı türleri için en vazgeçilmez doğal kaynaktır. Ne var ki, diğer doğal kaynaklar gibi su da kısıtlı bir kaynaktır. Canlılar ve doğal yaşam için vazgeçilmez oluşunun yanında su, son yıllarda kalkınmanın da vazgeçilmez bir unsuru haline gelmiştir. Hızlı nüfus artışı, sanayileşme, küresel ısınma ve iklim değişikliği özellikle dünyanın kurak ve yarı kurak bölgelerinde su kıtlığını ve suyla ilgili çatışmaları şiddetlendirmiştir. Bu nedenle su sorunları, uluslararası ilişkilere ve devletlerin dış politikalarına yöne vermekte giderek daha etkili olmaya başlamış ve bu durum su politikalarının gerekliliğini beraberinde getirmiştir. Bu tez, Türkiye'nin sınıraşan su politikalarına odaklanmakta ve uluslararası ilişkiler disiplininin başat paradigmalarından realizmin Türkiye'nin sınıraşan su politikaları üzerinde ne derece etkili olduğunu irdelemeyi amaçlamaktadır. Realist paradigma, Türkiye'nin sınıraşan su politikaları üzerinde etkilidir, ancak belli sayıda istisna söz konusudur.

Anahtar Kelimeler: Türkiye'nin Sınıraşan Su Politikası, Su Politikaları, Uluslararası İlişkiler, Realizm, Realist Paradigma

To My Parents

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LIST OF ABBREVIATIONS

BCM	Billion Cubic Meters
DSI	Devlet Su Isleri (General Directorate of State Hydraulic Works),Turkey
EU	European Union
GAP	Guneydogu Anadolu Projesi (Southeastern Anatolia Project), Turkey
GEF	Global Environment Facility
GDP	Gross Domestic Product
GWh	Gigawatt per hour
ICPDR	International Commission for the Protection of the Danube River
INWEB	International Network of Water Environment Centres for the Balkans
JTC	Joint Technical Committee
kW	Kilowatt
kWh	Kilowatt per hour
MCM	Million Cubic Metres
MW	Megawatt
NATO	North Atlantic Treaty Organization
PKK	Partiya Karkeren Kurdistan (Kurdistan Worker's Party)
UN	United Nations
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
USSR	Union of Soviet Socialist Republics
WFD	Water Framework Directive, EU

CHAPTER 1

INTRODUCTION

Water is an irreplaceable element for both human beings and other species on Earth. In addition to its vital importance for living things, water now plays a key role for development since it is indispensable for agriculture and industry as well as domestic use. However, like other natural resources, water is a scarce resource. Population growth, urbanisation, changes in lifestyle, economic development, and climate change have largely increased the pressure on water resources and jeopardized the accessibility to freshwater. Current figures reveal that the world is gradually reaching a level where accessibility of water resources will be more competitive. Rising competition over water resources is leading to predictions of increasing future conflicts over water resources.

Along with its scarcity, water is one of the most widely shared resources in the world. There are currently 263 transboundary rivers in the world.[1] They either form boundaries between states or flow across international political boundaries. The number of international basins as well as the riparian states in the basins changes over time vis-à-vis the changing political boundaries of the states in the world map. As the political boundaries change, a new international basin may occur or a previous national basin may dissolve. Unification of Germany in 1990, for example, led to Weser River to become a national basin which was formerly international. Some basins have the reverse situation; the dissolution of the Soviet Union in 1991, led to several river basins to become international (e.g., the Dnieper, Don, and Volga rivers). Alterations in the political status of the states also change the riparian

[1] United Nations Water, International Decade for Action 'Water For Life' 2005-2015 website http://www.un.org/waterforlifedecade/transboundary_waters.shtml Accessed 3 December 2012

states in the basin. After the break-up of the Soviet Union, Georgia has become the downstream riparian of Turkey in Coruh and Kura-Aras river basins.[2]

Transboundary water basins are of significance because they are the source of about 60% of world's freshwater flow. The world's 263 transboundary river basins account for nearly one-half of the earth's land surface and approximately 40% of the world's population lives in these basins. In total, 145 countries lay in the transboundary water basins all over the world. The more the number of riparian states increase, the more it becomes difficult to manage a river basin and to provide multi-lateral cooperation.[3]

Water, like other shared resources, is prone to both cooperation and conflict between states. Nevertheless, in most upstream-downstream constellations, transboundary water relations result in conflict. Vis-à-vis the increasing importance of water and the rising conflicts in international river basins, transboundary water issues have attracted global attention and become a matter of international relations. Although the geographically, rivers flow regardless of legal boundaries drawn by human and are convenient to be managed as a single unitary resource that could be exploited mutually for economic efficiency, riparian states usually fail to cooperate.

In explaining the transboundary water disputes and states' reluctance to cooperate, main assumptions of the realist paradigm of international relations provide an applicable framework of analysis. Therefore, this thesis study will be focused on the realist paradigm of international relations in examining Turkey's transboundary water policy.

Turkey owns 25 river basins including 5 transboundary river basins which are; the the Meric River Basin, the Coruh River Basin, the Kura-Aras River Basin, The Orontes River Basin and Euphrates-Tigris Rivers System. Transboundary river

[2] Aaron T. Wolf, "Atlas of International Freshwater Agreements", United Nations Environment Programme, 2002, p. 1
[3] Ibid., p. 2.

basins cover approximately an area of 256 000 square kilometres which accounts for one third of the country. Transboundary waters are of great importance for Turkey because 40 per cent of the country's 143 billion cubic meters of mean annual water potential sources from its transboundary river basins. About 28 per cent of this amount comes from the Euphrates and Tigris rivers only.[4]

In particular, the Euphrates and Tigris rivers are of great value for Turkey's national interests being the most prominent transboundary waters of Turkey constituting almost 80% percent of total transboundary water potential.[5] However, 'per capita water availability'[6] in Turkey has been decreasing due to population growth, industrialization and climate change and is estimated to fall by almost 30% until year 2020.[7] In addition to water demands, the country needs to improve wastewater treatment capacity and sewerage systems, install irrigation investments and increase hydroelectric energy generation in order to meet the rising energy demands. Turkey's electricity consumption is expected by 2020 to reach 499 kWh with an annual increase of around 8% according to the higher demand scenario, or 406 kWh with an annual increase of 6,1% according to the lower demand scenario. 18,5% of electricity generated in 2009 came from hydroelectric power.[8] The Southeast Anatolia GAP is intended to use Euphrates-Tigris river basin's water potential to meet nearly 10% of Turkey's electric energy and to irrigate 20% of the country's irrigable land by 2010.[9]

Turkey is the upstream riparian in the Coruh River, the Kura-Aras River Basin and the Euphrates-Tigris Rivers System; and downstream riparian in the Meric and the

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[4] Özden Bilen, "Hydro Political and Technical Assessment of the Waters in the Middle East", 2001 http://www.ozdenbilen.com/ozdenBilenYayinlari.aspx Accessed 5 March 2013

[5] Ibid.

[6] Total annual average run-off in a country divided by population gives the per capita water availability. See Wolf (1995)

[7] Bilen, op. cit.

[8] Ministry of Energy and Natural Resources http://www.enerji.gov.tr Accessed 5 March 2013

[9] See http://gap.gov.tr/ Accessed 5 March 2013

Orontes river basins. Turkey shares the Meric River with Bulgaria and Greece; the Coruh River with Georgia; the Kura-Aras with Georgia, Armenia, Azerbaijan and Iran; the Euphrates-Tigris Rivers System with Syria and Iraq; and the Orontes River with Syria. In other words, Turkey is riparian with the European Union members in the Meric River Basin; neighbour to Caucasians with former Soviet Union states in the Coruh and the Kura-Aras rivers basins; and shares waters with difficult Middle Eastern neighbours in the Euphrates-Tigris and the Orontes river basins.

Current picture reveals that Turkey has various transboundary riparian neighbours with various political status and dynamics which leads to different levels of cooperation and conflict in transboundary water politics of each basin. In addition to these, being upstream and downstream in different basins impedes to observe a uniform water diplomacy pursued by Turkey which would apply to each transboundary water basin.

Turkey's transboundary water policy complies with the realist theories especially in the basins where Turkey is the upstream; the Euphrates-Tigris river basin in particular. The riparian states are often unable to separate water issues from other political problems in this basin. Water issues are intertwined with national security, interstate rivalry, political power and economic development.

Although the parties have taken numerous steps of cooperation with forming joint technical committees, organizing occasions, envisaging joint projects and agreeing on exchange of data, the status of cooperation between the riparian states are still rudimentary. This is mainly because, along with the other protracted political issues specific to this basin, Turkey is reluctant to relinquish the full sovereignty over the rivers, which is provided by its advantageous upstream position.

Hence, even the cooperation efforts such as the *Three Stage Plan* of Turkey are perceived as a reflection of its sovereignty over the rivers and, therefore are not welcomed by the downstream riparian states. On the other hand, the Meric and the

Orontes river basins are the exceptional cases where it can be observed that Turkey has a more collaborative approach as being the downstream riparian. Tendency to cooperation in the Coruh River Basin can be explained by the downstream Georgia's having no certain demand for water quantity and willingness to build good relationships with upstream Turkey. The multilateral cooperation in the Kura-Aras River Basin is hampered by the conflicts inter se the other riparian states rather than Turkey.

In general terms, most of the transboundary river basins of Turkey involve official or unofficial and generally bilateral agreements for water sharing, exchange of data, joint technical bodies and joint projects. However, overall cooperation in the transboundary river basins of Turkey is still not in the desired level. Water politics of each transboundary river basin will be examined in the subsequent chapter of this thesis.

The main aim of this study is to analyse Turkey's transboundary water politics in its five transboundary river basins and to examine the dominance of the realist paradigm of international relations on Turkey's transboundary water policy. This thesis study argues that, realism is influential over Turkey's transboundary water politics; however, there are a certain number of exceptions.

Propounding the above mentioned arguments, dominance of the realist paradigm on Turkey's transboundary water policy will be examined in the following structure. After the introduction, in the second chapter, realist theory of international relations will be analysed in three sections. First part of the second chapter provides a brief coverage of the emergence of International Relations as a separate discipline. In this part, historical development of international relations will be examined. Theories of international relations, influence of E.H. Carr and Hans Morgenthau's writings, theoretical debates between realists and idealists, the developments in the discipline after World War I and during the inter-war period and the reasons for the dominance

of the realist paradigm in the discipline will be mainly discussed in the first part of the second chapter.

In the next part of the second chapter, historical roots of classical realism will be examined. Along with Morgenthau and Carr; Thucydides, Machiavelli, Hobbes who are the early thinkers who embarked the premises of classical realism will be dealt with. The works of Morgenthau greatly contributed to the theorization of realism and he is acknowledged for his efforts to develop a comprehensive theory of power politics through the realist principles of human nature, the essence of politics and the balance of power. Since his works remain key reference points in contemporary debates in the discipline, particular emphasis will be placed on Morgenthau's views. Arguments of historical realist figures; Thucydides, Machiavelli and Hobbes who have similar assumptions on human nature, interest, anarchy of the system and power will be briefly examined.

The third part of the second chapter will cover the theory emerged in the 1970s which is usually called *Neorealism* by many scholars involved in international relations or *Structuralism* as it is called by its founder Kenneth Waltz. As being a defensive realist, Waltz's main challenges to classical realism as well as his critiques of liberal approaches to the field will be analysed. Along with his criticisms, Waltz's contributions to classical realism with his main assumptions regarding states (units), their capabilities (power) and the international system will be addressed in this section.

In the third chapter, Turkey's transboundary politics in its five transboundary river basins will be examined. In the subsequent sections under the third chapter, current use and management of the Turkish transboundary waters in each basin will be analysed. Hydrological and geographical features, climatic conditions, water quality and quantity issues, water uses, water development projects and infrastructures in the transboundary river basins will be comprehensively assessed. Cooperation and conflicts in the transboundary water relations of Turkey with its riparian states in the

shared river basins will be analysed within the framework of bilateral and multilateral agreements, occasions, joint committees and projects if applicable.

In the first part of the third chapter, the Meric River which is shared by Turkey, Bulgaria and Greece will be examined. In this part, hydrological and geographical setting of the Meric river basin, one of the major river systems in the eastern Balkans, will be analysed and the status of cooperation in the river basin will be examined. Outstanding issues of this river basin are disputes on floods, water quality and quantity, and the prospects for cooperation brought by the European Union (EU) membership of the riparian states and the arrangements introduced by water-related EU Directives.

In the second part of the third chapter, longest river of the East Black Sea region; the Coruh River, will be examined. The Coruh river is shared between Turkey and Georgia which became a downstream riparian after the dissolution of Soviet Union. This river basin probably remains one of the least problematic transboundary river basins of Turkey. The parties, so far, have had no problem relating water quality or quantity which is typical for most transboundary rivers. However, there is a unique problem with this river. The potential impact of the Coruh River Basin Development Plan on the Batumi coast is the main concern between Georgia and Turkey since 1990s. Georgia's concerns about the hydropower dams to be constructed within the plan would drift the sediment flow of the river which would cause coastal erosion at Batumi is the main subject regarding this river basin. Sediment flow issue being in the first place, the status of cooperation and the agreements inherited from Soviet Union as well as those recent ones made with Georgia will be analysed in this section.

In the third section of the third chapter, the Kura-Aras River Basin will be dealt with. The Kura-Aras River Basin is another transboundary river system whose political composition has altered after the demise of the Soviet Union. Especially, the serious conflicts between downstream riparian states Armenia and Azerbaijan

have made multilateral cooperation rather unlikely to be achieved in the near future. The basin's proneness to conflict attracted increased international interest of both scholars and international organisations who conducts projects to settle cooperation in the Kura-Aras River Basin. In this section, Kura-Aras River Basin's water sharing and water quality disputes and the cooperation attempts will be mainly discussed.

Euphrates-Tigris Rivers System which used to be a highly disputed basin will be examined in the fourth part of the third chapter. The transboundary water disputes between Syria and Turkey as well as those between Iraq and Syria will be analysed regarding Euphrates and Tigris rivers since 1960s when the riparian states started to construct large water development projects on the rivers. In this section, the events consecutively occurring in this period, particularly those crises during the filling of the reservoirs of important dams of Turkey and that of Syria will be examined. Agreements, memoranda of understanding, meetings and chronological records of such official and unofficial bilateral cooperation will be analysed. Arguments of each riparian, water demands and contradictory data provided regarding their water potentials will be discussed. On the other hand, cooperation efforts such as Joint Technical Committees, the Three Stage Plan of Turkey and the improvements in the relations rapprochement period after the 1998 Adana Security Agreement between Syria and Turkey will be analysed in this section.

Finally, the Orontes River will be dealt in the last part of the third chapter. Although the Orontes River Basin is in a different hydrological and geographical setting, since Turkey shares it with Syria, water politics of the basin have been parallel to those of the Euphrates-Tigris River Basin. Until recently, the main difference was Syria's reluctance of negotiating the Orontes with the Euphrates and Tigris Rivers due to its concerns about the status of the Turkish province of Hatay. The marked difference between Syria's approach to its downstream Turkey and upstream Lebanon in this basin and that in the Euphrates-Tigris Rivers system is noteworthy. The unjust water

sharing agreement signed between the upstream Lebanon and the midstream Syria will also discussed in this section.

After the 1998 Adana Security Protocol, as the parties entered a rapprochement period, the Orontes River also has become a part of cooperation. The Trade Agreement signed in 2004, which is accepted to be an indicator of Syria's acknowledging Turkey's sovereignty over Hatay and the implications of this agreement will be discussed in this section. Particularly, the High-Level Strategic Cooperation Council meetings and the agreements signed within these meetings will be the outstanding cooperation issues to be examined in this part. One of the provisions a Memorandum of Understanding signed during the first council meeting, Turkish-Syria joint construction project of "Orontes Friendship Dam" was widely perceived as a symbolic step for the cooperation promises in the region.[10] However, the rapprochement process was hampered by the deteriorating relations since January 2011 due to the opposition movements spread to Syria inter alia the other Arab states. Syria's ongoing internal political instability, its implications on Syria's foreign policy and Turkey's supportive approach towards the opposition movements in Syria will be discussed as the main factors that undermine the cooperation between two riparian states. Despite the rising hopes for cooperation, it can be said that the parties have been once again unable to separate the water issues from those of high politics.

[10] Waltina Scheumann (et. al.) Orontes River Basin: Downstream Challenges and Prospects for Cooperation, in Ayşegül Kibaroğlu, (eds) Turkey's Transboundary Water Policy, Springer-Verlag Berlin Heidelberg, 2011.

CHAPTER 2

REALIST THEORY OF INTERNATIONAL RELATIONS

2.1. Emergence of International Relations as a Separate Discipline

Like other sciences, social sciences require to develop theories to question and explain the sophisticated structures of subjects they deal with. Theories seek for not only coming to a conclusion but also, more importantly, pave the way for asking the right questions from the beginning. In this sense, diverse theories start out with different questions and assumptions on the same subject and interpret the facts in different ways. Existence of diverse theories in a discipline -even if they are debating theories- is indeed a richness which enables diverse point of views and assessing the facts through a comparative approach.

Beyond doubt, the theories of international relations have played a fundamental role in the development of the discipline. International relations in broad terms involve war, peace, conflict and cooperation concepts which constitute the context of the theories of the discipline. As it deals with the relations between the states and nations, the emergence of the international relations is in fact as old as the emergence of the states and nations.

However, it is widely accepted that the formal recognition of a separate discipline of International Relations in today's context, dates back to the end of World War I when the first Chair of International Relations in University of University of Wales, Aberystwyth in 1919. Also in the same department, the first major work in the field, E.H. Carr's *The Twenty Years' Crisis* was published in 1934.[11] Carr's work

[11] Aberystwyth University website, http://www.aber.ac.uk/en/ Accessed 12 February 2013

along with Hans Morgenthau's *Politics Among Nations* (1948) are accepted to be the two foundational texts in the field of international relations.[12]

International relations discipline, therefore, is an outcome of World War I and developed by the subsequently emerging theories and theoretical debates which were questioning why and how the war began, why it could not be foreseen and how prospective ones could be prevented.

A number of thinkers blamed the old assumptions of power politics for the heavy losses of World War I that they failed to foresee and prevent. This movement of thought was led by thinkers such as Sir Alfred Zimmern and Philip Noel-Baker.[13] They argued that peace could be established only if the classical balance of power was replaced by a system of collective security which would bring the states together for common interests.

Advocators of this view would be accused of being simplistic and led them soon to be called 'idealists' or 'utopians'. The first opposition to this view came from Edward Hallet Carr who mainly argued that they were failing to explain the reason why the more powerful party would accede to cooperate with the weaker one.[14] In his work *The Twenty Years' Crisis* (1939), Carr made a substantial critique of Western diplomacy in the inter-war years. Thus, Carr unwittingly commenced the debate between 'realists' and 'idealists' or as he called 'utopians' which underpinned the international relations discipline.

As the World War I ended, the human cost of the catastrophe led the scholars put their thinking cap on about the old world order which was dominated by classical diplomatic practice to sustain the balance of power. In addition to human cost, the

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[12] Scott Burchil and Andrew Linklater, (eds.), Theories of International Relations, London, Macmillan Press, 1996, p. 1.

[13] Ibid., p. 6.

[14] Martin Griffiths, Fifty Key Thinkers in International Relations, Routledge, London, 1999, pp. 7-11

unpredictable long period of war impelled the thinkers to question to what extent it was right to study the issue merely in the context of history, philosophy, economy, politics or law.

This led the thinkers to realize the lack of a specific academic discipline to understand the international relations and to prevent future wars and conflicts. According to Burchill and Linklater the framework of this new discipline was drawn around the following three questions by the first scholars in the field:

> 1. What were the main causes of the First World War, and what was it about the old order that led national governments into a war which resulted in misery for millions?
> 2. What were the main lessons that could be learned from the First World War? How could the recurrence of a war of this kind be prevented?
> 3. On what basis could a new international order be created, and how could international institutions, and particularly the League of Nations, ensure that states complied with its defining principles? [15]

As Burchill and Linklater remark, many of the first thinkers generally concluded that the war stemmed from to two main reasons. The first one was the 'international anarchy'. The second reason was the mistakes of politicians who had lost control of events in 1914. It was because of the politicians' misunderstandings, miscalculations and recklessness since neither could they anticipate the war would last so long nor would the human cost be so high.

The idealists argued that the war and conflicts were deriving from the unaccountable structure of the old world order with its implicit relations and secret diplomacy. Therefore, the new conflict-free world order could be established through more democratic, transparent and accountable international relations.[16] Thus the early years of the discipline were dominated by the idealists' questions on

[15] Ibid., p. 7.

[16] Ibid., p. 8.

how to establish a fundamentally new world order could be established on the assumption of and in full faith that it was ever viable.

In the meantime, the first reactions were swift to come. E. H. Carr made one of the fiercest criticisms to whom he called ‘utopians’ which ignited the first ‘great debate’ between ‘realists’ and ‘idealists’ in the inter-war period and served the international relations to become rather a mature discipline. Carr was followed by many others, notably by Hans Morgenthau from United States with his work *Politics Among Nations* (1948).

Theories in social sciences such as the ones in political sciences and international disciplines are different than those in natural and applied sciences to the extent that they cannot be proven through scientific experiments and tests. In some cases, it may take decades to discover the winner of a theoretical debate. Yet, it may remain ambiguous or still there may be no real winner. In the case of debate between ‘realism’ and ‘idealism’, there is a consensus that World War II and the following Cold War era proved realists right and realism somehow prevailed idealism.

International relations, on the other hand, is not a policy science either. Whether it is studied partly through scientific methods, policy debates and suggestions by diverse academic circles; international relations is more than an academic discipline or science. It is a socio-intellectual space that is developing and enlarging for about a hundred years.

No matter what the methodology or approach is, those who engaged in international relations seek to understand and explain the relations between the states or other significant actors in the international system[17] and estimating the consequences of their behaviours.

[17] Peter Wilson E.H. Carr's The Twenty Years' Crisis: Appearance and Reality in World Politics. Politik, 12 (4), 2009, pp. 21-25.

Along with realism's by far success in answering the questions of the study of international relations, historical context and the course of the events from the inter-war period to Cold War era are widely accepted to explain the reason why realism has acquired dominance in the international relations discipline.

2.2 Realism

Although 'Realism' is a term that is used in many different disciplines, political realism which is also known as 'realpolitik' or 'power politics' in International Relations is a tradition that explains international relations in the context of 'power'.

Realist theory emerged and developed in reaction to 'idealism'. While realism focuses on the role of power in the international relations, idealism focuses on the role of morality, international law and organization in addition to power. Idealists believe that human nature is good and the international relations must rely on morality. Hence, idealists perceive the international system as a realm of cooperation in which the states can reconcile vis-à-vis the complications that may occur.

After the severe human costs of World War I, idealists came to fore during the inter-war period. In the meantime, U.S. president Woodrow Wilson was trying to create and sustain the League of Nations which would soon pave the way for the creation of today's United Nations. However, when World War II broke out, it proved that the League remained ineffective to solve the international problems and even failed to carry out its primary foundation purpose to maintain world peace and to prevent another world war.

After the World War II, an academic debate took place during the 1930s and 1940s between realists and idealists which is called the "first great debate" in the history of international relations discipline. Realists blamed the interwar scholars whom they called idealists (or utopians) for being unable to foresee and prevent World War II

to erupt. Realists argued that idealists could not comprehend the international system and its dynamics based on power politics.[18]

E.H. Carr who denominated the interwar scholars 'utopians' plays a fundamental role in the debate between realists and idealists with his book *The Twenty Years' Crisis* (1939) that was published on the eve of World War II. Carr greatly contributed to the dominancy of the realist paradigm through his book in which he gave a harsh criticism at the 'utopian' thinking. The liberals, the political organisations in the Europe during the post-World War I period, the League of Nations and its institutions, in short all Western intellectual thought and diplomatic practice[19] dominated by utopians during the interwar period come under the criticism of Carr.

Carr argues that the study of international relations is bound by the notions that were the products of the balance of power engaged by Britain. They were the products of Britain's own politic and economic experiences and therefore, those notions and set of ideas were not commonly applicable to all states with unequal power. The most prominent two of those notions were the 'natural harmony of interests' and collective security[20] that assumes war as a result of 'aggression' across borders which could be ruled out by the collective forces of the states who committed themselves to the rule of law.[21]

According to Carr, it is a false assumption that the political status quo of the international system would satisfy all the states within it. Therefore, the League of Nations and its purpose to implement collective security is inapplicable to an international system where states with various degrees of power exist. War and

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[18]Mustafa Aydın, "Uluslararası İlişkilerin "Gerçekçi" Teorisi: Kökeni, Kapsamı, Kritiği", Uluslararası İlişkiler, Vol. 1, No.1, Spring 2004, p. 35.

[19] Griffiths, op. cit. p. 7.

[20] E. H. Carr, The Twenty Years' Crisis, 1919-1939: An Introduction to the Study of International Relations (London: Macmillan, 1939) p. 13-14, 20-21, 139-44

[21] Griffith op. cit. p. 7.

conflict among states not only stem from problems of understandings but also from conflict of interests.[22] Hence, problems could be solved considering the balance of power rather than merely universal principles of morality and ethics.

Carr argues that, conflict and war among nations could be understood only by understanding the reasons and consequences of uneven distribution of power in the international system. States' satisfaction level from the status quo in the international system is uneven. Status quo itself is also changeable. State interests could change over time and changing interests would inevitably alter the status quo. As the degrees of power owned by the states change, their interests will start to conflict.

Post-World War I developments led to the rise of revisionist states[23] which Carr argues would attempt to change the newly occurring status quo. However, revisionist states proved Carr right very soon and the Second World War broke out. Carr suggests that if the interwar scholars' works would focus on the analysis that are applicable to diplomatic practice rather than putting effort to build an optimistic literature of universal moral principles, then it could be possible to reconcile the status quo and revisionist states.[24]

Carr, introduced a substantial analysis of power, morality, rule of law and change in international relations in a systematic and critical way that was not done before in the study of international relations. Therefore, his *The Twenty Years' Crisis* is accepted to be 'the first scientific treatment of modern world politics'[25] and the first

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[22] Carr, op. cit. p. 35-60, 67.

[23] According to Organski (1958) the states those that are satisfied from the existing security, political and economic structure of the international system are called 'status quo states', while those who are dissatisfied and have a desire to change the status quo in accordance with their interests are called the 'revisionist states'. For further information see Organski, A.F.K.: World Politics, 2nd ed, New York, Knopf, 1968.

[24] Peter Wilson, The International Theory of Leonard Woolf: A Study in Twentieth Century Idealism (New York: Palgrave, 2003), ch.2; Lucian Ashworth, International Relations and the Labour Party: Intellectuals and Policy Making from 1918-1945 (London: I. B. Tauris, 2007), 9-27.

[25] Stanley Hoffmann, An American Social Science: International Relations, Daedalus, 106 (4), 1977.

successful ‘counter-hegemonic’ book.[26] Yet Carr’s work is widely recognized as a critique of liberalism rather than an international relations theory.

The first representative of realism as a body of rules and as an empirical theory in real terms is the scholar Hans Joachim Morgenthau. His textbook *Politics Among Nations*[27] is the most significant reference guide of realist theory. His book is accepted to bring the most systematic approach to realism on the road to become a theory of international relations. Morgenthau is known for his efforts to develop a comprehensive theory of ‘power politics’ through the realist principles of human nature, the essence of politics, the balance of power and the role of ethics in foreign policy. In his works, Morgenthau’s main focus is ‘power’ which is a central concept of international relations discipline along with its supplementary term ‘national interest’.[28]

Jack Donnelly summarises, Morgenthau’s statement of principles reflecting theoretical and political world view regarding realism in the first chapter of his book *Politics Among Nations*[29] as follows:

> 1. “Political realism believes that politics, like society in general, is governed by objective laws that have their roots in human nature.” (1954: 4).
> 2. “The main signpost that helps realism to find its way through the landscape of international politics is the concept of interest defined in terms of power” (1954: 5).
> 3. “Power and interest are variable in content across space and time” (1954: 10).
> 4. “Realism maintains that universal moral principles cannot be applied to the actions of the states” (1954: 9).
> 5. “Political realism refuses to identify the moral aspirations of a particular nation with the moral laws that govern the universe” (1954: 10).

[26] Wilson, 2009, op. cit. pp. 21-25.

[27] Hans J Morgenthau, Politics Among Nations: The Struggle for Power and Peace, New York, Alfred Knoph, 1973.

[28] Efe Çaman, Uluslararası İlişkilerde (Neo) Realist Paradigmanın Almanya’daki Gelişimi ve Evrimi: Kindermann ve Münih Okulu, Uluslararası Hukuk ve Politika, 8 (2), 2007, p. 39

[29] Donnelly annotes that “This chapter first appeared in the second edition of 1954 and has remained essentially unchanged in later editions”

6. "The difference, then, between political realism and other schools of thought is real and it is profound…Intellectually, the political realist maintains the autonomy of the political sphere" (1954: 10) [30]

Above assumptions of Morgenthau are known as the six principles of realism. The first principle's emphasis is objectivity of the laws rooted in human nature and independent from subjective choices of human beings. Therefore, the analyst or the scholar should focus on the assumption that the statesman would make choices in line with their best interests. The second principle underlines the concept of interest which is defined by power as a key part of political realism. The third principle suggests that, notwithstanding the concept of interest is independent of time and space; it emerges through various purposes in line with the political and cultural basis on which the foreign policy is designed. The fourth and fifth principles involve the relation between political realism and morality. In this regard, the emphasis is on the distinction between individuals ('political man'[31]) and states. The sixth and final principle considers the non-political factors which are influential on international relations as secondary factors in comparison with those political ones.[32]

Different from those other members of realist school of thought who define politics a realm of conflict for various reasons; Morgenthau defines the international politics as a realm of struggle for power and potency. Morgenthau argues that no matter what the states reflect their purpose of international politics is, the underlying purpose is the struggle for power and interest.[33] Policy makers or the individuals have aspirations of wealth, liberty, security and sovereignty. Cooperation with other

[30] Jack Donnelly, Realism and International Relations, Cambridge University Press, 2000, p. 16

[31] Hans J. Morgenthau, Scientific Man Versus Power Politics, Chicago, University of Chicago Press, 1946.

[32] Faruk Sönmezoğlu, **"Uluslararası Politika ve Dış Politika Analizi"**, reviewed and extended 2nd. Edition, İstanbul, Filiz Kitabevi, 2000, p.103-104

[33] Tayyar Arı, "Uluslararası İlişkiler ve Dış Politika", extended 4th edition, İstanbul, Alfa Publication, 2001, p. 10-12

nations is a tool to reach those non-politic goals though, use of force is preferred to struggle for interest and power.

According to Morgenthau, any kind of international political activities of the states have a power dimension in common. In this respect, Morgenthau argues that, states pursue three types of foreign policy strategy; politics of prestige, politics of status quo (maintaining the balance of power) and imperialism. The first type of policy aims at demonstrating their power, the second type aims at maintaining the power they have, and the third type aims at increasing their power.[34]

Diverse activity patterns of the states in the international system, Morgenthau suggests, fall under one of those power-led intentions. States try to reach their goals through keeping and maintenance, increasing or demonstrating their power. Accordingly, they can either form alliances, pursue balance policy or they can resort to use force. There exists a vertical hierarchy among states. Amount of assets such as power, natural resources, which are distributed unevenly among the actors in the international system are assumed to be constant by the classical realists including Morgenthau. Accordingly, increase in one of the actors' power will lead to other actors to lose power.[35]

According to Morgenthau, human nature has three dimensions, biological, rational and spiritual all of which shape the human behaviour. Among them, he focuses on the 'will-to-power'. Because will-to-power, in other words the use of power to dominate others, is the defining characteristic of politics. Then, morality and reason are minor elements which are indeed instruments in politics to achieve power.[36] Morgenthau, in addition, underlines the relation with the human nature and interest. He suggests that just like the individuals, states also pursue interest. Therefore,

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[34] Hans J Morgenthau, Politics Among Nations: The Struggle for Power and Peace, New York, Alfred Knoph, 1973.

[35] Çaman, op. cit. p. 41

[36] Griffiths, op. cit. p.37

realists, notably Morgenthau, argue that the idealists' idea of creating an international society is utopic and unrealisable. Morgenthau criticizes the idealists' focusing on realists blamed idealists for looking too much at how the world *ought* to be instead of how it *really* is.[37] That reality is, Morgenthau acknowledges, the main actors of the international system are the nation-states who act in line with their interests. The concept of 'national interest' should be understood in order to understand the international system which makes the national interest central for foreign policy analysis.[38]

At this point 'diplomacy' comes into play. The major role of the diplomacy is to determine and analyse the national interests in a reasonable way in order to establish reliable and healthy international relations. When diplomacy is properly used, a balanced international environment can be created; and the misuse of diplomacy may endanger the harmony of the international environment. [39]

The reason why Morgenthau places a particular emphasis on diplomacy is the central role it plays in providing international cooperation and establishment of peace along with the power balance. Morgenthau underlines four key factors for diplomacy to be effective in keeping the peace. First, foreign policy objectives should be defined in context of national interest. Second, foreign policy should be reinforced by adequate power. Third, states should reconsider their foreign policy in different point of views and finally, states should behave cooperative towards those the issues that are not of vital importance.[40] Morgenthau suggests that diplomacy can serve for peace as long as it is restored and revitalized. High technology

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[37] Joshua S. Goldstein, Jon C. Pevehouse, International Relations, 10th ed., Peachpit Press, 2012, p. 36

[38] Atilla Eralp, Devlet, Sistem ve Kimlik Uluslar arası İlişkilere Temel Yaklaşımlar; Uluslararası İlişkiler Disiplininin Oluşumu: İdealizm-Realizm Tartışması, ed. Eralp, Atilla, 1st ed., İstanbul, İletişim Yayınları, 1999, p. 73-75

[39] Mehmet Gönlübol, Uluslararası Politika: İlkeler-Kavramlar-Kurumlar, 4th ed., Atilla Publishing, Ankara, 1993, p. 4-6.

[40] Arı, op. cit. p. 191.

developments are hard to control. Then the war tendency can be controlled and reversed through a revitalization of diplomacy. On the other hand, the revitalized diplomacy can succeed unless it is used as a tool for the political religions' desire to achieve a universal domination.[41]

Morgenthau's approach to possibility of cooperation among states is not very strict. It depends on the proximity between the interests of the states. In other words, states can be willing to cooperate when they have mutual interests. National interest, therefore, has a power dimension. States have to determine their interests considering their position in the international system in terms of power. The soundness of the international system should not rely on individuals or states man who are influential at a given time.

Since Morgenthau gives a central role to national interest and power, his theory is underpinned by the relation between those two notions. National interest is defined in the framework of international power relations. In context of those relations, national interest entails stability and continuity, while power provides flexibility and change.[42] This is in a sense, an opposition to idealists who define the national interest around universal moral values instead of existing international realities.

When emphasizing the necessity of defining the national interest in the context of power, Morgenthau stresses that statesmen should ground on the power of their own states when defending states interests.[43] In other words, states can merely defend those national interests that comply with the power they have.

As a theorist, Morgenthau's remarks and assumptions embody a vast contribution to the literature of international relations. Morgenthau brings the first systematic

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[41] Hans Morgenthau, "Uluslararası Politika", trans. Baskın Oran, Ünsal Oskay, Ankara, Türk Siyasi İlimler Derneği, 1970. p. 30-32.

[42] Eralp, op. cit. p. 74.

[43] Ibid., p. 74.

approach to the international relations discipline and makes conceptualizations to explain the behaviours of the states. His works remain the most systematic attempt to employ 'realist' principles in constructing an empirical theory of international politics. Those efforts represent Morgenthau's theorization endeavours. Both the role of power that narrowed the field of study and the repetitive patterns of activity among states that the struggle for power causes throughout history made Morgenthau's theory reliable. Although Morgenthau claimed that his theory was applicable to all kind of states, he particularly focused on the powerful ones on the grounds that the politics of international system is determined and led by the great powers.[44]

Despite its success in terms of its historical reach, Morgenthau's international theory is criticised for three major problems. First, it is not clear from his works that if power is a tool or an objective itself. John Vasquez argues that 'power politics is not so much an explanation as a description of one type of behaviour found in the global political system [which] itself must be explained; it does not explain'[45] Second, it is not clear if his pessimism about the nature of international relations stems from his metaphysical assumptions about 'human nature' or the anarchical nature of the international system. Therefore, it is argued that there is an important 'level-of-analysis' problem in Morgenthau's work. Third, there is a contradiction between Morgenthau's theory and practice of American foreign policy he advocates. In other words, the difficulties of uniting the theory and practice on the basis of a dogmatic and determinist theory of the balance of power led to inconsistencies.[46]

Nevertheless, Morgenthau's efforts of developing a comprehensive theory of 'power politics' on the philosophical basis of realist principles of human nature, the

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[44] Griffiths, op. cit. p. 37.

[45] John A. Vasquez, The Power of Power Politics, New Jersey, Rutgers University Press, 1983, p.216. cit. in Ibid., p. 39

[46] Ibid., p. 39-40

essence of politics, the balance of power and the role of ethics in foreign policy, beyond doubt helped him dubbed 'the Pope' of international relations. He is the best known and yet the most frequently misunderstood classical realist thinker in the twentieth century.[47] Although Morgenthau is criticized for explaining the international relations merely subordinating to power and for his obsession of human nature, his theory based on power and power balance steps forward among other theories in the realm which seek to explain the relation between state and international system.

Realism has its roots in the ancient times as well as the twentieth century. Along with Morgenthau and Carr; Thucydides, Machiavelli, Hobbes are the previous thinkers who embarked the premises of classical realism. These historical figures are seen by the realist as evidence for the importance of power politics is 'timeless' and 'cross-cultural'.[48] It wouldn't be wrong to say they all have in their remarks the emphasis on power, interest, anarchy and pessimist approach towards human nature in common.

Thucydides was an Athenian general and historian who lived in Greece fourth century BC. He is best known for his work *History of the Peloponnesian War*[49] which he wrote as an account of Peloponnesian Wars in the fifth century BC between the Greek city states Athens and Sparta which resulted in the triumph of the latter. The *Melian Dialogue* in the Thucydides' *History of Peloponnesian War is* the most famous text in the realist tradition. The realist arguments of Athenian envoys are accepted to provide one of the few examples of a rigorous, sustained realism.[50]

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[47] Ibid., p. 36

[48] Goldstein, op. cit. p. 36

[49] Thucydides, History of the Peloponessian War, ca. 400BC.

[50] Donnelly, op. cit. p. 23.

Thucydides is pessimist about human nature and he argues that use of power for interests is the most significant cause of wars. Because Sparta who was concerned about Athens' gaining power, broke the peace and declared war against Athens.[51] Thucydides focuses on the power imbalance among Athens and Sparta. Thucydides underlined the reality of the subordination of the 'weak' to those 'powerful' ones stating that "the strong do what they have the power to do and the weak accept what they have to accept."[52]

As understood from the Thucydides' work, Athenians resorted to law-like regulations that make international politics a realm of power and necessity like other paradigms. Since those regulations emphasize the conflict between the demands of justice and those of power, they worth paying particular attention.[53] The analogy that is drawn between the relations of Greek city states and the ones in the modern times is the reason why Thucydides' work is recognized as one of the pioneers of the realist paradigm.

Much later than Thucydides, in 1513, in Renaissance Italy, historian, diplomat and political theorist *Niccolò Machiavelli* wrote *The Prince*[54] addressing the princes. Machiavelli in his book, gives advises to the princes about the requisite characteristics of a prince and the ways to stay in power.[55] Since the Renaissance Italy was ruled by the principalities in the era he lived, Machiavelli argued that the Italian national unity could be possible only by the rule of a powerful prince.

Realism can be traced in The Prince in many aspects. Machiavelli praises the 'successful' while he blames the 'unsuccessful'. He subordinates all other values to political success. Machiavelli has a sustained low opinion of human nature

[51] Sönmezoğlu op. cit. p. 99-100.

[52] Goldstein, op. cit. p. 36.

[53] Donnelly, op. cit. p. 23.

[54] Niccolò Machiavelli, Il Principe, Antonio Blado d'Asola, Florence, 1532.

[55] Niccolò Machiavelli, The Prince, ed. Colin J.E. Lupton, trans. W.K. Marriott., Prohyptikon Publishing Inc. March 20, 2009.

describing it as; insatiable, arrogant, violent and malignant. [56] Indeed, human nature is a minor variable for his premises. Despite the fact that Machiavelli has frankly a negative stance against the human nature, the way in which he perceives the politics is of importance.[57]

According to Machiavelli, politics have no relation to morals. He claims that a leader's ultimate goal should be seizing the political power. Therefore, a prince should devote himself to no other things but the art of war.[58] Although well-ordered states rest on both 'good laws' and 'good arms', there cannot be good laws without good arms. Therefore, Machiavelli recommends princes to be armed before all else. Machiavelli argued that, it applies even to the religion; armed prophets could conquer while those unarmed were defeated.[59]

Along with the characteristics of rulers, Machiavelli also addresses the patterns of ruling; regimes. He classifies the regimes as monarchy, aristocracy and mobocracy. Corruptions on those there types of regimes, on the other hand, result in tyranny, oligarchy and demagogy. Both the first three and those second engage drawbacks of their own. Since the former regimes are not sustainable and the latter ones are examples for misrule as well, none of them are acceptable for Machiavelli. Instead, he suggests a combined model. The Prince, the notables and the public should constitute a new type of regime in which they supervise each other.[60]

Machiavelli's work is widely accepted as an analysis of a certain period and situation. There are arguments that he was unable to develop international politics. He believed in the independence of politics as a concept that can be explained in

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[56] Donnelly op. cit. p. 25.

[57] H. George Quester, Kenneth Waltz, Uluslararası İlişkiler Kuramı ve Dünya Siyasal Sistemi, Ankara, Ankara Üniversitesi SBF Publishing, 1982, p.39-40.

[58] Ibid. pp. 18-33, 62-74.

[59] Donnelly op. cit. p. 25.

[60] Machiavelli op. cit. pp. 33-37

terms of its own rules. Somewhat he sought for the rules of the politics. Indeed, Machiavelli pursued a consistent approach towards seeking for the rules of politics. This approach would soon called *realpolitik*, a German expression which is sometimes used as a synonym of *Machiavellian*. The interests of the ruler and the state are the pioneering forces of the realpolitik approach. Success is the proof positive of the politics whose aim is to maintain and empower the state. Therefore, interest and necessity are central concepts for Machiavellian approach as well as realpolitik.[61]

According to Machiavelli, men should be judged by result of their actions. As long as a prince succeeds and maintains his state, every means he uses will be judged honourable. Rulers should be honest and keep his promises though, he never lacks legitimate reasons to break his promise.'[62] From his point of view, the objectives legitimate the tools on the way to achieve political power, even those tools include violence. He even does not avoid praising violence and tyranny as means to attain and maintain political power. His book is even viewed as a handbook for tyranny.[63] However, his works should be examined in the historical context of the era he lived considering the dominancy of Italian tyranny. Yet, Machiavelli has been dubbed the founder of empirical political science and his works, in particular The Prince, have a considerable influence on the philosophy of Thomas Hobbes.

Seventieth-century English philosopher Thomas Hobbes' premises probably best comply with those of classical realism. Along with Thucydides and Machiavelli, Hobbes embodies the most powerful expressions of realism in his work *Leviathan*[64] which was originally published in 1651. In Chapter 13 of Leviathan, Hobbes gives an explicit example of classical realism making a strong emphasis on *egoism* of

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[61] Quester, op. cit. p.40-41

[62] Ibid., p. 25

[63] Larry Arnhart, Political Questions: Political Philosophy from Plato to Rawls, 3rd edition, Prospect Heights, IL, Waveland Press, 2002.. See also Turkish translation: "Siyasi Düşünce Tarihi", trans. .A.Kemal Bayram, Ankara, Adres Yayınları, 2004.

[64] Thomas.Hobbes, "Leviathan", Everyman Press, London, J.M.Dent and Sons, 1914

human nature and international *anarchy*. Thomas Hobbes assumes politics in a pre-social state of nature.

Hobbes makes three simple assumptions:
1. *Men are naturally equal*.
2. They interact in *anarchy* (in the absence of government)
3. They are driven by *competition, diffidence and glory*.[65]

The combination of these three conditions leads to war. Hobbes' best known argument that the natural condition of man is a state of war is based on his above assumptions.

According to Hobbes, men are equal in the sense that even the weakest has strength to kill the strongest via political plots or forming alliances with others. Although men have equal ability to achieve their ends, scarcity prevents them having as much as they desire. This possibility of overcoming each other which is provided by equality causes enmity among men. Driving forces of competition, diffidence and glory exacerbates the enmity. According to Hobbes, men invade for three purposes: firstly, for competition; secondly, for; diffidence and third, for glory. That is to say human beings quarrel for gain, safety and reputation respectively. Competition leads the men invade for gain. Since men tend to secure themselves a world of anarchy and scarcity, fear of others leads to defensive war even when one is not seeking for gain. Since the best defence is a good offence, war becomes inevitable. Even there is no need to make war for gain and diffidence, this time men are driven by a desire for glory. In philosophical terms, men's desire to be valued as much as their competitors leads to conflict over reputation.[66]

[65] Jack Donnelly, 'Realism', Chapter 2 in Burchill, op. cit., p. 32

[66] Ibid., p. 32.

As Hobbes' famous saying *Homo homini lupus*[67] (man is a wolf to man) reveals his negative stance against human nature; men are egoistic, competitive, fearful and vain. Therefore, men will continue fighting, whether the reason is gain, safety or reputation. The threat of force will always exist. Any dispute among men can turn into violence any moment in the absence of a government.[68]

Despite his negative assumptions on men, Hobbes does not totally underestimate the possibility of cooperation. Hobbes states that there are 'passions that incline men to peace' and there are 'reasons suggest the convenient articles of peace upon which men may be drawn to agreement'. However, without a government to set the peace, men remain condemned to war. In the absence of common superior power to keep them in peace, men will prolong to war for gain, to react with fear and to demand for glory. An international government could not only be effective in keeping the peace, but also could end the state of war. Conflict could be prevented and appeased by constraining competition, diffidence and glory even in anarchy.[69]

Although competition, diffidence and glory can be kept under control by a common power, they cannot be removed. According to Hobbes, human nature cannot be changed. Hobbes' pre-social state of nature involves a thought that assumes the human nature with a fixed, constant core remains unchanged.[70]

Hobbes' theory of international relations, assumes that independent states, are enemies by nature, like independent individuals. They are asocial and selfish, and there is no moral limitation on their behaviour. This is a major challenge to the idealism based on human sociability. Hobbes' insistence on the defensive character of foreign policy distinguishes Hobbes from other realists and associates him more with classical realism. For instance, his approach to international relations is more

[67] Hobbes, op. cit.

[68] Burchill, op. cit, p. 33.

[69] Donnellly, op. cit p. 14.

[70] Ibid., p. 14-15.

prudential and pacific than those of Machiavelli. His theory does not unconditionally advocate state interests. Hobbes has a more prudential and pacific approach to international relations assuming that states should be reconciled on peace as a consequence of reason. The international anarchy environment drawn by Hobbes is not a realm without rules. Neither does he deny the international law stating that the states can sign treaties as a legal basis for their relations. On the other hand, Hobbes stresses that international rules will often remain insufficient in restraining struggle for power. The interests of the powerful state will determine whether to obey or violate the international rules. Therefore, international relations will remain a fragile affair which represents essence of Hobbes's realism as a grim view of global politics.[71]

Consequently, aforementioned realists in commonly assume that human nature is selfish, most important actors are the states, causes of state behaviour is rational pursuit of self-interest and nature of international system is anarchic. The international system is anarchical because the relations among states take place in the absence of a world government. Distribution of power among states best explains the international relations. Although states are legally equal, power is not distributed equally. The uneven distribution of power among states makes the international relations to become a realm of power politics. Power, on the other hand, is hard to measure and manage. Power balance among states is not constant. It changes over time and vis-à-vis the changing circumstances. Besides, there is no consensus between states on how the power should be distributed. Therefore, international system is a realm of continuity and necessity and a competitive environment where the states have to attain power and maintain it over time.

[71] Włodzimierz Julian Korab-Karpowicz, Political Realism in International Relations, The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed.), Summer 2013 Edition http://plato.stanford.edu/archives/sum2013/entries/realism-intl-relations Accessed on 20 December 2012.

2.2.1 Power

For realist paradigm, power is a central concept for many scholars in international relations. The main difficulties of power are how to define and measure it.

Although power has various definitions, it is often defined as is often defined as the ability to get another actor to do what it would not otherwise have done. Accordingly, actors are powerful to the extent that they affect others more than others can affect them. In context of this definition, power is treated as influence. One problem with this definition is that it is difficult to estimate what a second actor would have done in the absence of the first actor's power. In other words, power explains influence, and influence measures power which results in a circular logic. Power then, should be defined as the ability to influence the behaviour of others rather than the influence itself. Many scholars in the international relations discipline assumes that the potential to influence others (power) is based on tangible and intangible characteristics or possessions of states; such as their sizes, levels of income, and armed forces. This assumption treats power as *capability* and capabilities are easier to measure than influence.[72]

There are various kinds of potentials for measuring capabilities to explain how one state influences another. Each state has varying amounts of population, territory, military forces, and so forth. State power, therefore is a combination of many elements. These elements can be classified as long term and short term ones. Long term and tangible elements include total GDP, population, territory, geography, and natural resources which change only slowly. Less tangible long-term elements of power can be counted as political culture, patriotism, education of the population, and level scientific and technological development.[73]

[72] Goldstein, op. cit. p. 38-39

[73] Ibid., p. 39

There are also other capabilities short term elements of power. The most important kind of short term capability is the military forces. If two states were compared, the size, composition, and preparedness their military forces matter more in a short-term military confrontation than their respective economies or natural resources. Military-industrial capability which enables to produce weapons quickly is also another short-term influential capability.

Realists tend to consider military force as the most important element of national power in the short term. The other elements such as economic strength, diplomatic skill, or moral legitimacy are also considered important to the extent that they can be turned into military power. However, which element to be influential depends on the nature of the conflict in question. In some cases, military power remains as a minor element among many others.

Henry A. Kissinger, during his ministry of foreign affairs, argued that, it is not necessary for states to be powerful in all realms in order to be considered powerful. According to Kissinger, military power does not ensure political influence and also those economically powerful ones can be militarily powerless. Besides, the states those which have neither military nor economic power can be politically influential.[74]

According to Kenneth Waltz, if different capabilities of state do not support each other, focusing on its powerful capabilities may lead to overlook its weaknesses. In this case, it can be a misevaluation to consider some states as superpowers. Since the states are in a self-help international system, they have to use a combination of their capabilities to achieve their ends. Therefore, economic, military and other kind of capabilities of states cannot be considered apart from each other. States' place in the power ranking is determined by to what extent they are powerful in such issues as population, geography, natural resources, economic and military power and political stability.[75]

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[74] Henry A. Kissinger, At Pacem in Terris Conference, New Release, Bureau of Public Affairs, Department of State, October 10, 1973.

[75] Kenneth N. Waltz, Theory of International Politics, Reading, Addison & Wesley, 1979, p.129-131

The powers of ideas are also emphasized for their ability to maximize the influence of capabilities through a psychological process. This process includes the domestic mobilization of capabilities, often through religion, ideology, or particularly nationalism. Morgenthau for instance, does not perceive the power merely as the use of force. He also refers to the influence of power on the thoughts of people. Morgenthau, by saying political power, refers to the mutual control relations between the society and the leader and the power of that leader to influence the society. Subordination of political power to use of physical force tends to underestimate the power of charisma. If the power of charisma and prestige in the international politics is underestimated, the reasons for people's obeying and respecting leaders like Napoleon and Hitler as well as such institutions as United Nations cannot be understood. Morgenthau stresses that, no matter what the end of foreign policy is, in fact it is a product of the will to influence the thoughts of others and thus to control them.[76]

Measuring and defining power is crucial to identify the state behaviour and the international system to solve and understand the conflicts. States' perceiving the level of power of the other states in the international system, determines their behaviour towards others. In this way, they evaluate the treat and take a stance against it; whether balancing, arming, offence or defence. Nevertheless, since power is difficult measure, it does not provide a de facto solution to estimate the behaviour of states in the international system.

2.3 Structural Realism

The theory which is usually called *Neorealism* by many scholars involved in international relations or *Structuralism* as it is called by its founder Kenneth Waltz emerged in the 1970s as a reaction to classical realism's deficiencies in his point of view.[77] Waltz's book *Theory of International Politics,* first published in 1979, is a

[76] Morgenthau, op. cit. p. 32-34.
[77] Henry A.Kissinger, World Restored, Boston, Houghton Mifflin, 1967.

key text in the field.[78] His work has been described as 'the single most widely read contribution to neorealism, establishing him as the paradigmatic successor to Morgenthau'.[79] Most of the structural realist works since the 1970s are largely as a result of the influence of Kenneth Waltz.[80]

Waltz's work is a response to the liberal challenge and an attempt to reveal and complement the failures of the classical realism of Hans Morgenthau with a more scientific approach. Contrary to Morgenthau whose theory is rooted in struggle for power which is based on human nature, Waltz intentionally avoided any philosophical discussion of human nature. Instead, he endeavoured to build a theory of international politics parallel with microeconomics. Waltz acknowledges that the states in the international system act similar to firms in a domestic economy whose fundamental aim is to survive.[81]

Structural realism accepts in advance three of the fundamental assumptions of classical realism: state central approach, rationality and power. Waltz contributed to the classical realist theory by extending it from state level to international system level. Waltz maintains that states (units) act in an anarchical system in the absence of a central authority. Determining the distribution of power in such a system will enable to identify the structure of the system and to estimate the behaviours of the states.

Waltz argues that both traditional liberals and classical realists fail to develop a proper analysis of the international system which can be abstracted from the wider socio-political domain. Waltz stresses that such an abstraction invalidates many of the determinants paid attention by classical realism. Although this abstraction precludes the analysis of the development of specific international politics, it

[78] Griffiths, op. cit. P. 47
[79] Michael Banks, The inter-paradigm debate, in M. Light and A.J.R. Groom (eds), International Relations: A Handbook of Current Theory, London, Frances Pinter, 1985, p. 14. cit. in Griffith op. cit. p. 46
[80] Burchill, op. cit. p.34
[81] Korab-Karpowicz, op. cit. Accessed on 23 December 2012

enables to understand the primary determinants of international politics. Since Waltz's theory is not convenient for developing international or domestic affairs of the states. Neither does it applicable to domestic politics. Rather it engages in understanding the similar behaviours of the states in spite of their different regimes and ideologies. It also seeks to explain why the interactions of the states remain unchanged despite they become increasingly dependent to each other in the international system.

Answering these questions, Waltz acknowledges that uniform behaviour of states results from structure of the international system. According to Waltz, a system structure is defined by three elements: 1- The principle by which it is organized, 2- The differentiation of its units, and 3- The distribution of power across units.

In Waltz's theory system consists of units. Those units are the states. He also acknowledges the influence of non-state actors but they are relatively insignificant and are not a part of his theory. Anarchy plays a central role in Waltz's international system. In the absence of central authority, all states have to survive by themselves. Therefore, there is no specialization and functional differentiation among them. They develop similar functions to become self-sufficient. Since they are similar in function, then their relative capabilities (power) will be determinant.

Waltz's perceives power and state behaviour differently than those classical realists. For Morgenthau, power is both a means and an end. Morgenthau explains the rational state behaviour as the course of action that would gather as much power as possible in contrast to classical realists those assume that the fundamental interest of each state is security and would therefore concentrate on the distribution of power. Another distinguishing feature of neorealism than that of classical realism is methodological rigor and scientific self-conception. Although Waltz acknowledges that they can only have a limited application in international relations, he insists on

empirical testability of knowledge and on falsification as a methodological ideal in his works.[82]

Waltz maintains that the distribution of capabilities among states can vary however, anarchy, the ordering principle of international relations, remains unchanged. This is the motive which leads states to socialize into the logic of self-help. Waltz refuses the neoliberal ideas concerning the effects of interdependence. Instead, Waltz acknowledges 'insecurity' and 'unequal gains' as the two reasons why the anarchic international system limits cooperation. In the context of anarchy, each state is unaware of the intentions of others. They are afraid that the possible gains resulting from cooperation may favour other states more than itself and thus it may become dependent to others. According to Waltz, states do not willingly place themselves in situations of increased dependence. In a self-help system, security concerns subordinate economic gain to political interest.[83]

In his theory, Waltz once again underlined the significance of state as the main actor in international politics vis-à-vis the other scholars who were arguing that international relations were undergoing a radical transformation as a result of growing interdependence in the international economy as well as the limitations of force in the nuclear age. According to Waltz, *Theory* was the first scientifically defensible theory of the balance of power in international relations. Waltz blamed his opponents' arguments to be reductionist and non-falsifiable.[84]

Waltz played an important role in neorealism's become a very influential and paradigm in the international relations discipline because of his precise theoretical and methodological approach. Waltz is a key figure of the second debate that

[82] Ibid. p. 1.

[83] Waltz, op. cit., p. 107.

[84] Griffiths op. cit. p. 47.

dominated international relations in the 1980s and his book continues to be a critical reference point of neorealism in international relations.[85]

[85] Ibid., p. 47.

CHAPTER 3

TURKEY'S TRANSBOUNDARY RIVER BASINS

3.1 Introduction

Watercourses, being either ground waters (aquifers) or surface waters (rivers) usually do not coincide with the frontiers of states. Instead, they run across the lands of more than one country on the way to their final destination. This feature of the watercourses creates water basins which involve more than one state. Those states share the same river basin are called 'riparian' states. The country from which the river originates is called the 'upstream' and the countries those are down the river, where the river run across and where it discharges are called the 'downstreams'. There are 263 river basins all over the world each of those are shared by at least two countries. These types of waters are called 'transboundary waters'. Almost one thirds of those 263 transboundary river basins have more than two riparian states. River Danube is the one having the highest number of riparian states. It is shared by 19 countries which makes it the world's most international river basin. 263 transboundary river basins drain almost 50% of the world's surface and thus, they concern 50% of the world's population. [86] Therefore, transboundary water basins are very likely to witness disputes between riparian states.

Turkey owns 25 river basins and 5 of them are transboundary river basins including Meric, Coruh, Kura-Aras, Orontes and Euphrates-Tigris. Figure 1 and 2 shows the location of the basin areas drained by those rivers and their tributaries. Transboundary river basins cover almost one third of the country.[87] Turkey holds the upstream riparian position in Coruh, Kura-Aras and Euphrates-Tigris, and

[86] See ICPDR website www.icpdr.org Accessed on 17 February 2013

[87] Bilen, op. cit.

downstream in Meric and Orontes river basins. Riparians, water potentials and the contributions of the riparians to the river basins are shown in Table 1.

Figure 1 Turkey's Transboundary Rivers[88]

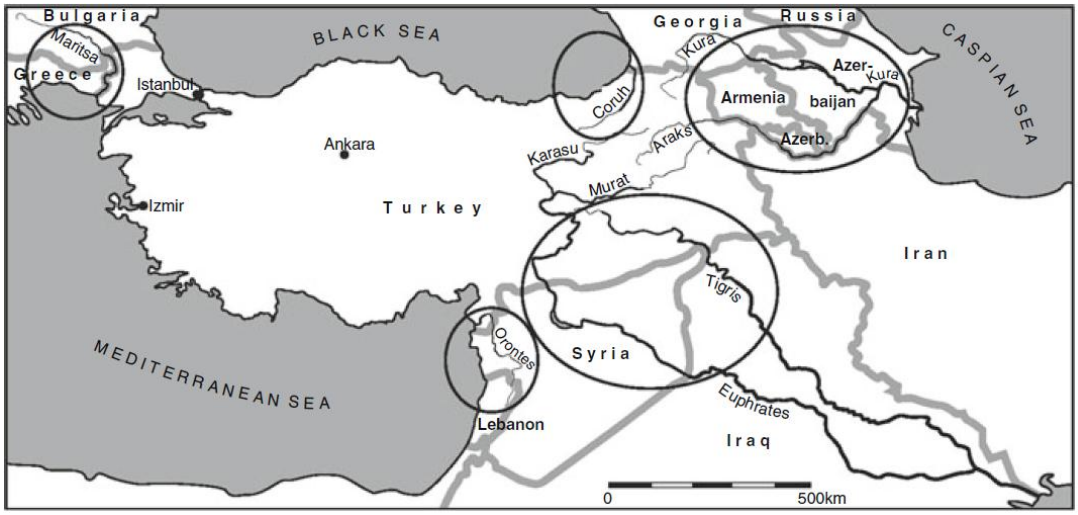
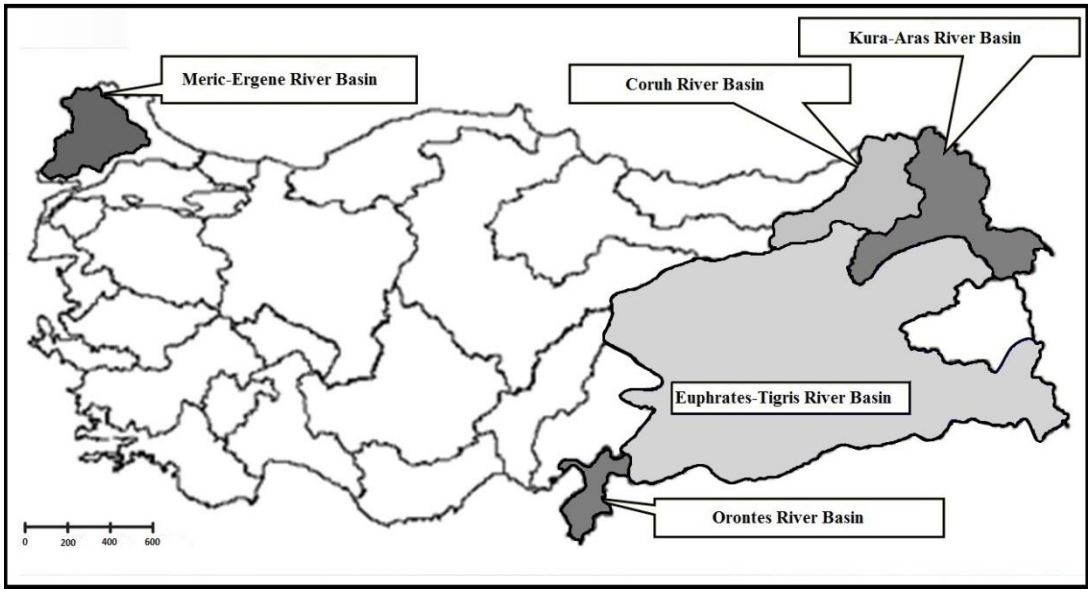


Figure 2 Catchment Areas of Turkey's Transboundary River Basins[89]



[88] Ayşegül Kibaroğlu, (eds) Turkey's Transboundary Water Policy, Springer-Verlag Berlin Heidelberg 2011.

[89] **Source:** State Hydraulic Works (DSI) 2012

Table 1 Turkey's Transboundary River Basins: Mean Annual Discharges and Contributions of Riparians

River Basin	Riparians (Other than Turkey)	Mean Annual Discharge (BCM)	Turkey's Contribution to the Mean Annual Discharge (BCM)
Meric	Bulgaria Greece	8,50	1,33
Coruh	Georgia	6,80	6,54
Kura- Aras	Georgia Armenia Iran Azerbaijan	24,00	5,72
Dicle-Fırat	Syria Iraq	85,00	53,00
Asi	Syria Lebanon	2,40	1,17

Source: State Hydraulic Works (DSI) 2012

3.2 Meric River Basin

The Meric[90] River basin is one of the largest basins of the Balkan Peninsula with a catchment area of more than 52 600 square kilometres. Meric is the second longest river of South-eastern Europe after River Danube. Along with Turkey, it is shared by Bulgaria and Greece. It is a vital water source for Thracian region of Turkey.[91] The main problem of the basin is the floods especially in springs. In spring term floods influence both Greece and Turkey. Floods cause significant damages both in economic and environmental terms.

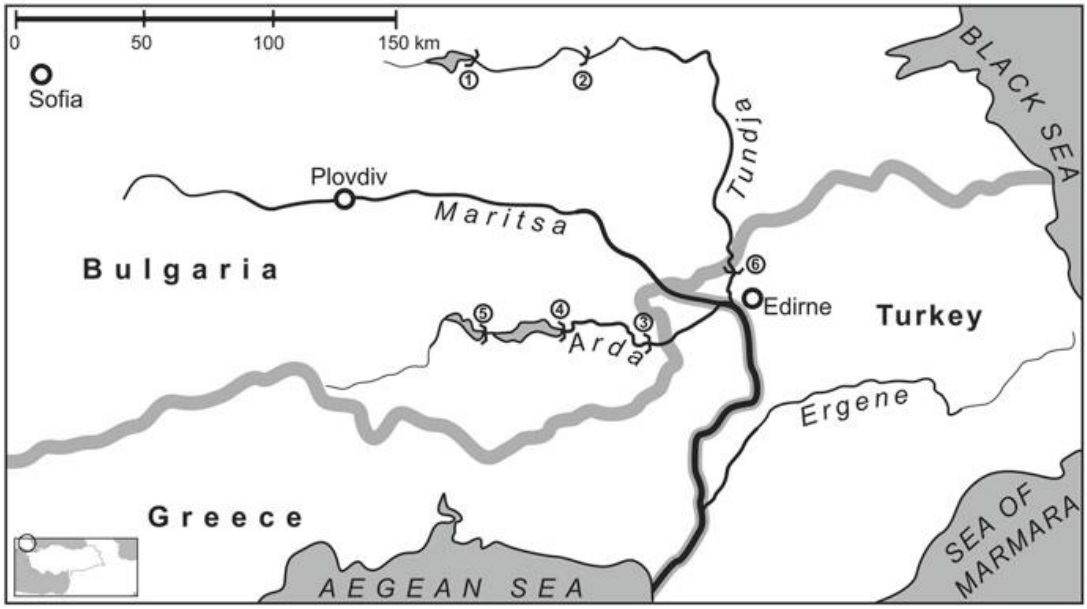
The basin faced disputes among Turkey and Bulgaria on irrigational water use and flood management in particular. The water relations in this basin were often

[90] In most of the sources this river basin is merely called 'Meric' River Basin. DSI calls it 'Meric-Ergene' River basin since the 1970s and ranked as Basin No.1 The River Meric is The river is called Maritsa in Bulgaria, Evros in Greece and Meriç in Turkey.

[91] Dursun Yıldız, Meriç Nehri Havzasi Su Yönetiminde "Uluslararasi İşbirliği Zorunluluğu" ORSAM Su Araştırmaları Programı Rapor No: 44 Rapor No: 4, Nisan 2011.

overshadowed by mutual distrust and non-water related political disputes in the past. However, Greece and Bulgaria's European Union (EU) membership and Turkey's ongoing process of alignment with the EU acquis altered the picture. As they are member states, Greece and Bulgaria shall apply EU Water Framework Directive[92] and Flood Directive.[93] These directives are not focused on water sharing dimension of transboundary waters. Water Framework Directive focuses on the objective of 'good water quality' and Flood Directive's main objective is to mitigate floods. Both Greece and Bulgaria as members and Turkey as a candidate are continuing their studies to implement the EU legislation. Water quality and flood problems in the Meric basin seem closer to cooperation with the help of EU acquis.

Figure 3 Meric River Basin[94]



1-Georgi Dimitrov Dam, 2-Jdrebchevo Dam, 3-Ivailovgrad Dam, 4-Studen Kladnetz Dam 5-Kardjali Dam, 6-Suakacagi(Tunca) Dam (planned)

[92] Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy

[93] Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007

on the Assessment and Management of Flood Risks

[94] Kibaroğlu, A., 2011

3.2.1 Hydrology, Geography, Climate and Water Uses

The Meric River is about 500 km long, has its source in the Rila Mountain (Bulgaria) and flows into the Aegean Sea. Its major transboundary tributaries include the rivers Arda/Ardas (Bulgaria, Greece and Turkey), Tundzha/Tundja/Tunca (Bulgaria, Turkey) and Biala/Erithropotamos (Bulgaria, Greece). The river Ergene is an important tributary, located in Turkey. The Meric River system rises in Bulgaria and flows along the Turkish Greek border into the Aegean Sea.[95]

The Meric basin has a drainage area of about 52,600 square kilometres. Most of the drainage area lies in Bulgaria with 65 per cent. Turkey and Greece cover the 28 and 7 per cents of the drainage area respectively.[96] (See Table 2) About 218 km of the river are located in Greece. Meric constitutes a 16 km long border between the region where the Bulgaria, Greece and Turkey have a border shared by the three countries and it forms another boundary between Greece and Turkey for 187 kilometres. In total, Meric forms a 203 km long borderline between the European Union and Turkey. [97]

[95] International Network The UNESCO Chair/International Network of Water-Environment Centres for the Balkans (INWEB) on "sustainable management of water and conflict resolution" website http://www.inweb.gr/workshops2/sub_basins/13_14_15_Evros_Ardas_Ergene.html Accessed 20 March 2013

[96] Transboundry Water Resources Management in Southeastern Europe website http://www.twrm-med.net/ Accessed 20 March 2013

[97] Ibid Accessed 20 March 2013

Table 2 Distribution of Meric River Basin Area Among Riparians

Country	**Drainage Area**	**Percentage**
Bulgaria	34 067 km^2	65%
Turkey	14 850 km^2	28%
Greece	3 685 km^2	7%
Total	**52 600 km^2**	**100**

Arda River springs from Rodop Mountains in Southern Bulgaria, flows through Greece and joins Meric in the west of Turkish city of Edirne, in a place very close to Greek border. It is approximately 290km long and has a catchment area of 5 795 km^2 located in Greece and Bulgaria.[98]

Tunca River, the second major tributary of Meric, springs from the Stara Planina Mountains of Bulgaria. It is approximately 384km long. Tunca River forms a border of 12km long between Turkey and Bulgaria. Then, after flowing about 30km it joins to the Meric within Turkish borders.[99]

Water potential of Meric River Basin is mainly used for hydroelectric energy generation by Bulgaria. The downstream riparians Turkey and Greece widely utilize Meric waters for irrigational purposes. Total annual flow of Meric River Basin is

[98] Dursun Yıldız, Meriç Nehri Havzasi Su Yönetiminde "Uluslararasi İşbirliği Zorunluluğu" ORSAM Su Araştırmaları Programı Rapor No: 44 Rapor No: 4, Nisan 2011, p.10

[99] Ibid., p. 10.

about 8 BCM. 71 per cent of this flow takes its source from Bulgaria, 23 per cent from Turkey and 6 per cent from Greece. (See Table 3)[100]

Table 3 Mean Annual Discharge of Meric River Basin and Contributions of Riparians

Country	**Mean Annual Discharge (BCM)**	**Percentage of Contributions**
Bulgaria	5.7	71%
Turkey	1.8	23%
Greece	0.5	6%
Total	**8**	**100**

Flood is a major problem in the Meric basin for the downstream riparians Turkey and Greece. A series of severe floods occurred in 2005, 2006 and 2007. Settlements and agricultural areas in Turkey, Turkish city of Edirne in particular, and Greece heavily damaged during this floods. After the floods, although it was largely agreed that the main cause for the events was exceptional meteorological conditions, Turkish and Greek experts of the downstream argued that poor water management of Bulgaria was also effective on the floods. It was argued that since Bulgaria's reservoirs are inappropriate, high water levels in reservoirs close to the border increases the risk of flooding. As Greece and Turkey argue, Bulgaria releases the excess water during heavy rainfall and snow melt to protect its dams from breaking which leads to floods in the downstream. In addition, the lack of an appropriate early warning system in the river basin also intensified the impact of the floods.[101]

[100] Ibid. p. 9.

[101] Kramer, op. cit. p. 236.

Another significant concern in the river is the low water quality in the basin. The Turkish side of the basin area constitutes the most developed parts of the country; Thrace region. Due to population growth, a considerable amount of domestic wastewater is discharged into the basin which forms the principal source of water pollution. It followed by industrial pollution which is mainly produced by the intensely industrialized cities of Luleburgaz, Cerkezkoy and Corlu. Illegal industrial wastewater discharges are reported to be a problem in the Turkish part as well as the agricultural pollution. These various pollution resources lead to the water of the Ergene River sub-basin to be classified as Class IV (very polluted) and the Meric River sub-basin as Class III (polluted).[102]

However, Turkish authorities claim that the Meric River enters Turkey as polluted (class III) and the Tunca River enters as heavily polluted (class IV) based on the measurements taken at the Kapikule border quality monitoring stations between 1985 and 2001. In Bulgaria, primary pollution sources are discharges from agriculture and live-stock along with industrial and domestic wastewater discharges. Wastewater treatment capacity is quite low. Only about 67 per cent of the population is connected to sewerage systems, and only 30 per cent of wastewater is treated in Bulgaria.[103] Agricultural run-off constitutes the second important source of water pollution, which is followed by industrial pollution sources.

Greece's contribution to water pollution is relatively low, because apart from Alexandroupoli, there are no major cities in the Greek part of the basin. Industrial activity is very limited and the main source of pollution is domestic wastewater from a few small settlements.[104]

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[102] UNECE, River basin commissions and other Institutions for transboundary water cooperation, Economic Commission for Europe Convention on the Protection and Use of transboundary Watercourses and International Lakes, "Capacity for Water Cooperation in Eastern Europe, Caucasus and Central Asia", ECE/MP.WAT/32. New York and Geneva: United Nations, 2009.

[103] Ibid.

[104] Kramer op. cit. p. 234-235

3.2.2 Transboundary Water Relations in the Meric River Basin

Since 1968, a series of agreements and protocols have been signed between Republic of Turkey and the People's Republic of Bulgaria. Most significant ones are shown in Table 2.

Table 4 Agreements and Protocols Between Bulgaria and Turkey

Countries	**River Basins/rivers**	**Title of Agreement/Protocol**	**Signed (S), Entered into force (E)**
Bulgaria-Turkey	Meric, Arda, Tunca	"Agreement between the Republic of Turkey and the People's Republic of Bulgaria on the Cooperation of the Utilization of the Waters of the Rivers Flowing in the Territories of the Two Countries"	1968-(S) &(E)
Bulgaria-Turkey	Meric, Arda, Tunca	"Agreement on Long Term Economic, Technical, Industrial and Scientific Cooperation"	1975-(S)
Bulgaria-Turkey	Meric, Arda, Tunca	"Agreement on Assistance and Cooperation in the Field of Water for Reducing the Negative Effects of the Drought"	1993-(S)
Bulgaria-Turkey	Meric, Arda, Tunca	"Agreement on the Approval of the 15th Term Protocol"	2002
Bulgaria-Turkey	Tunca	"Protocol on Construction of Tunca Dam"	5 December 2006

"Agreement between the Republic of Turkey and the People's Republic of Bulgaria on the Cooperation of the Utilization of the Waters of the Rivers Flowing in the Territories of the Two Countries" was the first agreement between Bulgaria and Turkey which was signed and entered into force in 1968. The agreement was mainly targeting to enable efficient use of Meric Arda and Tunca rivers and to cooperate for flood protection. The parties would conduct researches, make data exchange and try to mitigate possible damages for mutual interest. For this purpose, A Turkish-Bulgarian Joint Commission was established.

In 1975 the "Agreement on Long Term Economic, Technical, Industrial and Scientific Cooperation" was signed between Bulgaria and Turkey. Although the main emphasis of the agreement was economy, it was addressing the joint use of the shared waters for energy generation and irrigational purposes.

The parties signed the "Agreement on Assistance and Cooperation in the Field of Water for Reducing the Negative Effects of the Drought" in 1993. The main objective of the agreement was to cooperate against drought. Accordingly, Bulgaria should supply additional water to Turkey from the river Tunca on a one-off basis and limited to 1993. Turkey should pay US Dollars 0.12 per cubic meter of water provided by Bulgaria. Turkey purchased 15,866,000 cubic meters of irrigation water from Bulgaria at 1,903,904 US Dollars cost.[105]

In 2002, the "Agreement on the Approval of the 15th Term Protocol" was signed by the Turkish-Bulgarian Joint Committee for Economic and Technical Cooperation. This protocol contains provisions on trade and economic relations including agriculture and environment. In this respect, parties agreed cooperate for protection of surface and groundwater resources and water related environments. They also agreed on continuing data exchange for flood protection.

The most recent protocol signed between Bulgaria and Turkey is "Protocol on Construction of Tunca Dam" which was signed in 5 December 2006. The dam is planned to have a 15 845 ha irrigation area, 2561 ha flood protection and 36,80 GWh annual energy generation. The plans for construction of the Tunca (Su Kacağı) dam dates back to 1968. Joint feasibility studies between Bulgaria and Turkey have been completed. However, to date, no progress was made to start construction. [106]

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[105] Turkish Parliament Research Commission (2002). cit. in Annika Kramer and Alina Schellig,, "Meric River Basin: Transboundary Water Cooperation at the Border between the EU and Turkey" in Kibaroğlu op. cit., p.239-240.

[106] See www.dsi.gov.tr Accessed 27 March 2013

As for Turkey's relation with Greece, the first of a series of agreements between was signed in 1934. Table 3 shows the important protocols and agreements between the two parties.

Table 5 Agreements and Protocols Between Greece and Turkey

Countries	**River Basins/rivers**	**Title of Agreement/Protocol**	**Signed (S), Entered into force (E)**
Greece-Turkey	Meric	"Agreement pertaining to the construction of hydraulic facilities on both banks of the Meric-Ebros River"	1934-(S)
Greece-Turkey	Meric	"Agreement relating to the construction of flood control measures on the Meric River"	1955-(S)
Greece-Turkey	Meric	"Protocol on the improvements of the River Meric watercourse that constitutes a significant portion of the Turkish-Greek Thracian Border"	1963-(S)
Greece-Turkey	Meric	"Memorandum of Understanding Concerning Cooperation on Environmental Protection"	2000

Source: DSI 2012

In 1934, the "Agreement pertaining to the construction of hydraulic facilities on both banks of the Meric-Ebros River" was signed between Greece and Turkey. It covered provisions to construct projects regarding flood protection and erosion control over Meric River as well as data exchange and cooperation. Accordingly, parties should consult and inform each other before constructing water infrastructure relating the Meric River.

In 1955, "Agreement relating to the construction of flood control measures on the Meric River" was signed between Greece and Turkey. The agreement was based on a master plan for flood control. The plan was prepared by Harza Engineering which

was a private company. In particular, the financing of the plan led to disputes between the parties as well as the necessity of modifications on borderline between two states. Due to these disputes arising, the master plan has not been completely to date.[107]

Later in 1963, "Protocol on the improvements of the River Meric watercourse that constitutes a significant portion of the Turkish- Greek Thracian Border" to amend and settle the disputes arising during the protocol of 1955. It envisaged making the necessary modifications of borderline and exchange of land required to build infrastructure on the river. It also included technical issues regarding water infrastructure construction.

Turkey and Greece agreed on a "Memorandum of Understanding Concerning Cooperation on Environmental Protection" in 2000 which mainly covered data exchange, coordination and cooperation on environmental issues through a joint committee to be set up.

In Meric Basin, there have no trilateral agreements or projects between Bulgaria, Turkey and Greece regarding water issues until now. Only bilateral agreements have been made regarding flood control and cooperation on environmental issues and some joint water infrastructure attempts so far.[108]

However, water quality, water quantity and flood protection issues still remain unsettled. Greece and Turkey could not reach an agreement on water sharing yet. Neither could the parties have not settle an agreement on water quality standards and on data exchange regarding water quality. Flood issue as well remain unsolved

[107]Özden Bilen, Turkey and water issues in the Middle East: An examination of the Indus, Colorado, Danube and Jordan-Israel Water treaties and the water agenda of 21st century. Southeastern Anatolia Project (GAP) Regional Development Administration, Ankara, Turkey, 2000.

[108] Kramer., op. cit. p. 242

due to the insufficiency of the early warning system and flood protection infrastructure in Bulgaria. Flood risk still exists for Greece and Turkey.[109]

Existing agreements in the Meric River Basin do not include provisions on water quality standards. Exchange of data mainly focuses on information on floods. Data exchange on water quality is not available. Furthermore, minimum flow of freshwater to be released into the delta satisfying the water needs of the ecosystem as well as preventing salt water intrusion and siltation is not provisioned under an agreement.[110]

3.3 Coruh River Basin

Coruh[111] River basin is probably the most unproblematic transboundary river basin of Turkey. The upper riparian Turkey shares the Coruh River basin with Georgia. Up to now, there has been no problem about water sharing with the downstream Georgia. The main tributaries of the Coruh River are the Tortum and Oltu rivers in Turkey, and Adzharis and Tsakali rivers in Georgia (See Figure 4).The principal use of Coruh River is hydropower in Turkey. Due to highly inclined topography it flows through, Coruh is one of the most rapid-flowing rivers of the world. Thus, it has a considerably high hydropower potential which makes very important to Turkey in economic terms. In this respect, Turkey envisaged a large project; Coruh River Basin Development Plan which involves 10 dams and hydroelectric stations on Coruh river to generate annually 8,260 billion Kwh power. Most of the components of the plan are now either in operation or under construction. Along with providing hydropower potential, the rapid-flowing nature of the river leads to considerable amount of erosion in its bed which means it carries about 5.8 million cubic meters of sediments annually. Those sediments are important for the formation of the delta in the coastal region of Batumi and they are slowed down due to the installations on

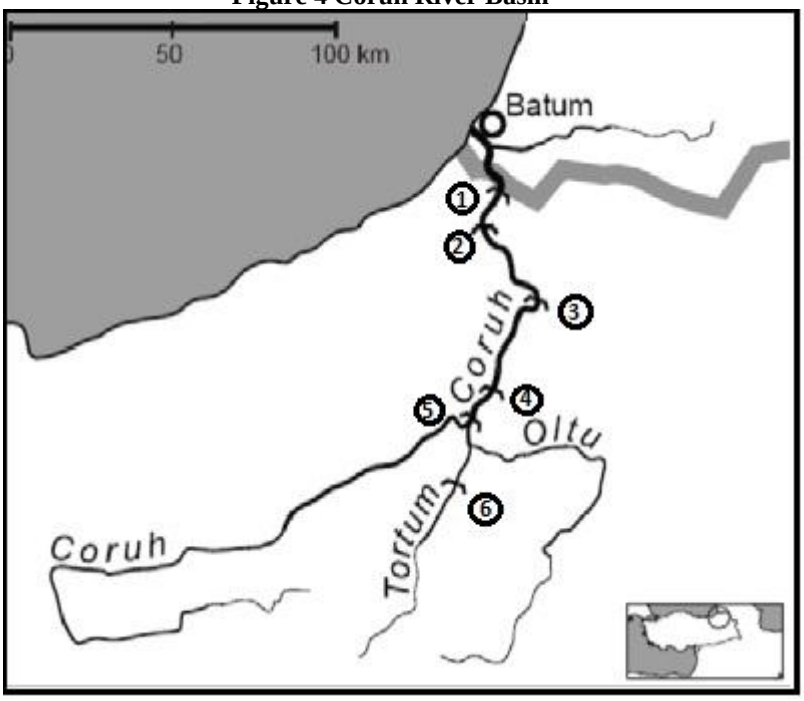
[109] Yıldız, Ibid. p. 17.

[110] Kramer, op. cit. p. 242-243.

[111] In Georgian “Chorokhi”

the river. The most outstanding issue of the Coruh River Basin is, starting from 1990s, Georgia's concerns about coastal erosion at Batumi which would be caused by the Coruh River Development Plan.

Figure 4 Coruh River Basin[112]



1-Muratli Dam, 2-Borcka Dam, 3-Deriner Dam (under construction), 3- Deriner Dam (started operating at 12.12.2012), 4-Artvin Dam (under construction), 5-Yusufeli Dam (under construction) 6-Tortum Dam

3.3.1 Hydrology, Geography, Climate and Water Uses

Coruh River Basin drains a catchment area of approximately 21 962 square kilometres. Almost 90 per cent of this catchment area lies in Turkey. Coruh River is 431km long. 410km of the River lies within Turkey and 21km lies in Georgia. It forms a natural border for 3km between the two countries and then flows into Georgian territory.(See Table 6)

[112] Kibaroğlu, A., 2011

Table 6 Hydro-geographic Data of Coruh River Basin

	Catchment Area (km^2)	River Length (km)	Total Annual Sediment Load (BCM)	Mean Annual Discharge (BCM)
Turkey	19 872	410	5.8	6.3
Georgia	2,090	21		

Coruh River rises from the Mescit Mountain Chains down from a height of 3255 m. Then it flows west, passing through Bayburt and Ispir in Turkey. It makes its longest journey in Yusufeli for about 10km. After Yusufeli it is joined with Oltu River which is one of its main tributaries. Then it passes through Artvin and Borcka and finally from city of Muratlı it enters into Georgian territory. After flowing for about 23km in Georgian Territory, Meric discharges into Black Sea from Autonomous Republic of Adjaria, near Batumi, Georgia.

The Climate of the Coruh River Basin is partly under the influence of cold continental and partly under that of mild Black Sea climatic conditions. The climatic conditions over the basin greatly vary from areas of high land elevation of about 1 132 m, mountainous topography and from those areas parallel to coastline. Mean annual rainfall of the basin varies between 250 mm-2650 mm. Average annual rainfall of the basin is about 475mm.

Average flow rate of Coruh is 202 cubic meters per second. The highest and lowest run-off rates are 2,431 cubic meters per second and 38 cubic meters per second respectively. Most of the mean annual flow comes in spring season. About 85% of the total annual flow in Coruh River concentrated in three months period from May to July.

Water quality in the main course and tributaries of the basin is relatively high than those other transboundary rivers in the region. Pollution sources of the Basin are domestic pollution, untreated municipal wastewaters and a small amount of

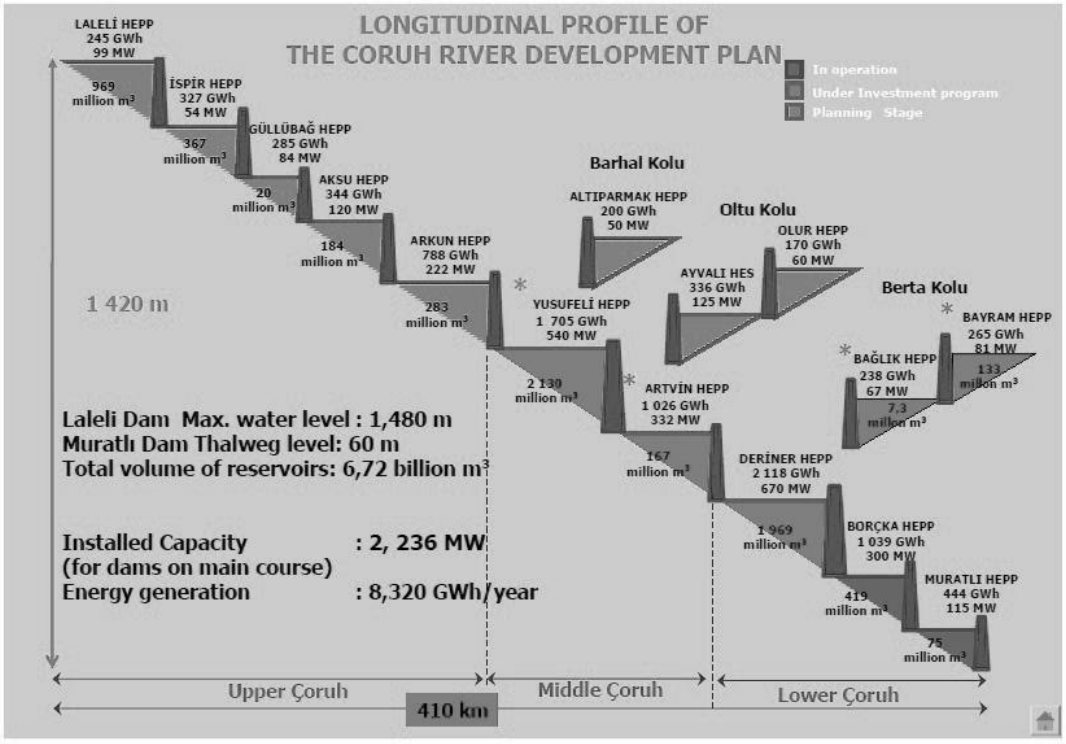
industrial pollution. Among these, municipal wastewater comes first due to limited water treatment capacity.

Georgia's main utilization from Coruh is fishing. Water of Coruh is not used for irrigation, industry or domestic water demands. Also in Turkey, there is no significant use of irrigational purposes. This is because livestock is rather an important part of economy than that of agriculture due to the topographic conditions of the region. On the other hand, Coruh is of importance for Turkey because of its hydropower potential. It is estimated to have the potential of almost 13 per cent of the country's total hydropower potential.[113]

In 1962, Turkey launched the preliminary studies for development with the aim of maximum utilization of the hydropower potential of the basin. The Master plan for hydropower development of Çoruh River was completed in 1982. According to Coruh River Development Plan, dams would be gradually constructed on the main stem of the river, starting from the one at the downstream. In this regard, starting from Muratli Dam in 1999, the constructions continued with Borcka, Deriner, Artvin and Yusufeli Dams. Most Recently, Deriner Dam started operating with a national ceremony in the symbolic date of 12.12.2012 inter alia 112 other type of facilities. Later in February 2013, construction of Yusufeli dam has also started. The Coruh Basin Development Plan, with its components, has a total installed capacity of 2,236 MW. (See Figure 5)

[113] Ibid., p. 254

Figure 5 Transverse Section Layout of The Coruh Development Plan[114]



However, negative transboundary impacts of Turkish dams on the sediment regime which is claimed to cause erosion on coastal zones of Batumi have led to disputes between Turkey and Georgia. Indeed, this claim roots in the researches of Soviet Russian scientists. However, Georgian authorities inherited the issue after the demise of the Soviet Union.

According to the results of scientific researches, the coasts of Adjara are generated from solid sediments carried by Coruh River. Formation of the delta on the coastal Batumi is a complicated process. First, the sediments carried by Coruh flows into Black Sea with the waters of Coruh. And then, the waves of the Black Sea bring the sediments back to the coasts. As the waves loaded with sediments wash the coasts, the delta is formed. In case the sediments are not carried and the waves without sediments wash the coasts, the delta starts to erode.

[114] Source: DSI 2012

The Coruh River carries 5.3 BCM of solid sediments per annum. If at least 5 BCM of these sediments are not continuously to be brought by Coruh, the coastal Batumi will start to be eroded. Georgia's claim is that, the dams of Coruh River Development Plan will block and slow down the sediments carried by Coruh. Jaoshvili claims that; "Waves will take away more than 1500 hectares of the densely populated area and the strength of washing will depend on the storm activity of the Black Sea. As a result, a small gulf may appear in place of the present estuary." [115]

As a result of a series of meetings, joint researches and diplomacy between Georgia, Turkey recognized to an extent the negative impacts of the dams on sediment load. However, the exact consequences of the impacts are yet remain ambiguous.

3.3.2 Transboundary Water Relations in the Coruh River Basin

In 1927, Turkey and the Soviet Union signed the "Protocol on the Beneficial Uses of Boundary Waters" It is also known as 'Kars Protocol'. It was the most directly relevant transboundary agreement between the Soviet Union and Turkey. The protocol which entered in to force in 1928 mainly covers water allocation and borders of the rivers forming a boundary. It was also addressing the use of Coruh River since it forms a 3km border between the two states.[116] In terms of water allocation, the Article No.1 of the agreement provides fifty-fifty allocation of water. Regulations on infrastructure and dam building are also included. The agreement on the other hand, only applies to the rivers forming a boundary. Therefore, the provisions of the agreement are not applied to other transboundary rivers. Later in 1989, the Soviet Union and Turkey signed another protocol regarding cooperation for the construction of hydro technical facilities for the prevention or correction of the riverbeds of Arpacay, Posof and Caksu Streams along with Coruh River.

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[115] Shalva Jaoshvili, What may happen to the Adjarian coast after construction of dams on the Chorokhi river. Caucasus Environment, vol 3, 2003, Caucasus Environmental NGO Network. http://www.cenn.org/Magazine_1/Magazine_3/What_May_Happen.html. Accessed 17 March 2013

[116] Ay Kurucim, Coruh Havzasi Hidropolitigi, yayinlanmamis yuksek lisans tezi. Ankara: Hacettepe Universitesi 2002, cit. in Ibid., p.257

Up until now, three memoranda of understanding signed between Georgia and Turkey. In 2002, "Memorandum of Understanding on Cooperation for Obtaining Aerial Digital Maps of Coruh Basin in Georgian Territory for Determining Possible Downstream and Environmental Impacts of Hydraulic Structures being built on Coruh and its Tributaries" was signed. In the same year, another "Memorandum of Understanding between Representatives of Georgian and Turkish Governments for Cooperation" was signed. The third Memorandum of Understanding was signed in 2006, during the meeting in Ankara Meeting in Ankara to address the issues regarding Coruh River.

In between these agreements and memoranda of understanding, a number of meetings were held concerning the 'sediment' issue which arise from the dam constructions in the context of Coruh River Development Plan.

Since the dams of the Coruh River Development Plan are mainly purposing hydropower rather than water supply, and Georgia is not intensely using the river, water quantity or water sharing is not a source of conflict in Coruh river basin. The 'fifty-fifty' allocation provisioned by the agreement signed in 1928 is still in force.

There are a number of issues remain unsettled regarding Coruh River Basin. Mainly, erosion problems along the Georgian Black Sea coast are the controversial issue between Turkey and Georgia. Georgia is demanding financial compensation of costs for mitigation and prevention measures. There is also no comprehensive approach to protection of biodiversity in the basin and data exchange is insufficient regarding water quality.

Transboundary water relations in the Coruh River Basin have been conducted in the context of the changing state parties and their political status in the downstream of the basin; Soviet Union, Autonomous Republic of Adjara and Georgia. Although the Georgia and Turkey have not agreed on a comprehensive bilateral agreement regarding the sediment issue, Turkey accepted to undertake the financing of

monitoring of the environmental impacts of the dams on the Batumi coast as well as the compensation of probable consequences to occur.

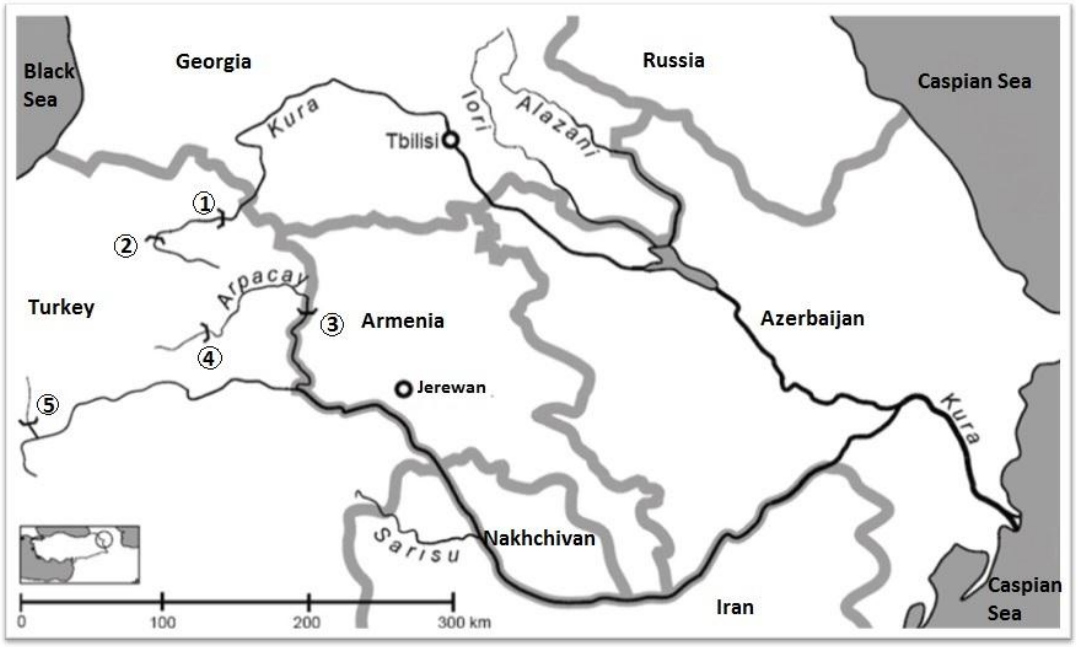
3.4 Kura-Aras River Basin

Kura-Aras River Basin system is a significant water resource of South Caucasus[117] with its two main branches; Kura and Aras both originate from Turkey and shared by four other states. Before the demise of the Soviet Union, riparians of the Kura-Aras River Basin were Turkey, Iran and Soviet Union. Since Azerbaijan, Armenia and Georgia became independent the basin is currently shared by five countries including Turkey, Iran, Azerbaijan, Armenia and Georgia (See Figure 6).

Up to now, the basin witnessed long conflicts and serious clashes between two of those states Armenia and Azerbaijan. Although the conflicts stem from ethnic and religious rather than water disputes, protracted enmity between Armenia and Azerbaijan hampers cooperation in the basin. Both ongoing political conflicts between the riparian states and concerns on water quantity as well as threats on water quality, the basin is expected to witness serious transboundary water disputes in the near future.

[117] South Caucus refers to Georgia, Armenia and Azerbaijan

Figure 6 Kura-Aras River Basin[118]



1-Koroglu Dam(planned), 2-Besikkaya Dam(planned), 3-Arpacay Dam (in operation since 1985), 4-Bayburt Dam(under construction), 5-Demirdoven Dam (planned)

3.4.1 Hydrology, Geography, Climate and Water Uses

Kura-Aras River Basin system has two main branches which are Kura and Aras. Both of the rivers rise from Turkey. The basin has a total annual discharge of 32 BCM. Kura River provides 55% of the total water flow of the basin while the Aras River's contribution is 45%. The basin covers a considerably large area of ca. 188 400 square kilometres (See Table 7)[119]

[118] Kibaroğlu, A., 2011

[119] UNDP/GEF Reducing Trans-boundary Degradation of the Kura-Aras River Basin. UNDP Project Document, 2006 http://www.undp.org.ge/files/project_files/kura-aras-prodoc.pdf Accessed 4 December 2012

Table 7 Catchment Area Shares of the Riparians in the Kura-Aras River Basin

Country	**Total Country Area (1000 km^2)**	**Area in the Basin (1000 km^2)**	**Percentage of the country area**	**% of the basin area**
Armenia	29.8	29.8	100	15.8
Azerbaijan	86.6	55.1	63.6	29.2
Georgia	69.7	36.4	52.2	19.3
Turkey	771	28.9	3.7	15.3
Iran	1648	38.2	2.3	20.3
Total	**2605.1**	**188.4**	**7.2**	**100.0**

Kura River's total length is 1,515 km. It originates at a height of 2,740 m in the Anatolian highland of Northeast Turkey in the Gizilgadik mountain range, winding its way through mountainous regions in Turkey, Georgia and Azerbaijan into the Caspian Sea. It flows for about 210 kilometres in Turkey. Then it moves into Georgian territory, flows for about 390km and joined by Aras, it empties into Caspian Sea from the territory of Azarbaijan. Kura River drains an area of ca. 88 000 square kilometres in total. It is fed by snow (36%), ice melt water from glaciers (14%), underground sources (30%) and rain (20%). The altitude of the Kura River Basin ranges from 4,500 m to the Caspian Sea (-27 m). The flow in the spring flood periods makes up 58-64% of the total annual discharge with 19-22% of the total discharge during the summer-autumn period and 17-20% in winter.[120]

[120] Ibid., p.6

The second main branch of the system Aras River has a length of 1 072km. It has a basin area of 102 000 square kilometres of which 18,740 km^2 relates to Azerbaijan, 22,556 km^2 to Armenia and 60,704 km^2 to Iran and Turkey. The Aras River springs from Bingöl Mountains near the city of Erzurum in Turkey. It flows for 300km in Turkish territory. As the river leaves Turkish territory, first it forms natural boundaries between Turkey-Armenia, Turkey-Nakhchivan, Nakhcivan-Iran, Armenia-Iran and Iran-Azerbaijan respectively.[121] After 80 kilometres, it joins Kura River in Azerbaijan and discharges into Caspian Sea together. The Aras divides just before meeting the Kura, and one branch flows directly into the Caspian. Apacay and Sarisu are important tributaries of Aras. Turkey shares Arpacay with Armenia and Sarisu with Iran.

Since the watershed of Kura-Aras extends through a very large area with diverse topography with diverse climates, various precipitation conditions exist. Annual rainfall within the basin declines from west to east. In Georgia, average annual precipitation is 500mm. In Azerbaijan, it is only 200mm in. Kura River's average discharge flow rate is 28.75 cubic meters per second. On the other hand, total annual water supply of the river in Turkey up to the Georgian border is about 1 BCM. As for River Aras, the total water flow is 2.5 BCM in Turkey up to the Armenian border.[122]

The water quality and the water quantity of Kura-Aras Rivers are negatively affected from the human activities for the last fifty years. All the riparian countries have played a role in the degradation of the water basin in different levels. The main factors which have led to degradation in the basin are; industrial pollution, domestic waste, agricultural pesticides; large-scale irrigation, flood control and hydropower schemes. Although, the stress on the water quality in some parts of the basin have decreased as many of the countries have experienced an economic decline in the recent years. However, this is temporary. As the economy states starts to regrow and

[121] Ibid., p.6-7

[122] Ibid., p. 6-7

industrial activities revitalized, the stress on the water quality will again recur. As for water quantity, the problems have generally not decreased in the past decades. Instead, the basin suffered droughts, floods and ecosystem damages due to inefficient upstream irrigation along with climatic conditions.[123]

Waters of Kura-Aras River basin is used for various purposes including agricultural, industrial, domestic demands and hydropower installations. Each activity has various negative impacts on water quality and the quantity in the basin. The main water use purpose of the basin is agriculture followed by industrial use and drinking water supply.

Armenia, Georgia and Azerbaijan are the foremost users of the waters of the Kura-Aras River Basin. Agricultural water use comes first in all three countries though, they are experiencing problems related to water quality and quantity to different extents. Having had the largest agricultural lands, Azerbaijan is the country which has the highest demand of water among others. However, it is one that suffers the most serious water shortage. Armenia is also experiencing water shortage due to poor water management. Contrary to these two countries, Georgia has a considerable amount of water surplus. Armenia resorts to increased use of groundwater to overcome the water shortage and to decrease the dependence on Aras River. Since the groundwater is insufficient to meet the demands in Azerbaijan, the country is still dependent on Kura and Aras rivers for domestic water demands.[124]

As for water quality, main polluters of the basin are again Georgia, Armenia and Azerbaijan. Georgia and Armenia's discharge of agricultural and domestic wastewaters significantly decrease the availability of water. Georgia also

[123] Ibid., p.7

[124] Seyfi Kılıç, "Aras-Kura Nehri Havzasında Sınıraşan ve Sınır Oluşturan Sulara İlişkin Sorunlar",Orsam Su Araştırmaları Programı, Analizler ve Gündem, 2013. http://www.orsam.org.tr/tr/SuKaynaklari/analizgundemgoster.aspx?ID=4340 Accessed 20 March 2013

contributes water pollution in the Kura River with the discharges of its chemical and metallurgical industries. In Azerbaijan, returning waters of irrigational use are discharged back into the Kura River without any treatment which leads to an additional source of water pollution.[125]

Turkey and Iran on the other hand, have relatively a lesser impact on the pollution of the rivers. Indeed, there is limited documentary evidence for Iran's contribution to water pollution. Since the upstream Eastern Turkey is industrially less developed and relatively less populated, Turkey is expected to have a minor share of the river's pollution. However, watershed degradation, erosion and agricultural pollution deriving from chemicals, pesticides are issues of concern. Intensive agriculture on irrigated land usually has an impact on water quality because of salinisation and the use of fertilisers and pesticides.[126]

3.4.2 Transboundary Water Relations in the Kura-Aras River Basin

Up to now, there have been limited cooperation endeavours in the Kura-Aras River Basin. There are merely a number of bilateral agreements most of which were signed during the Soviet Union era. Therefore, majority of the cooperation in the basin is conducted relying on the agreements that were made before the demise of the USSR. Considering the political instability and serious conflicts between the riparian states, new cooperation grounds are of low possibility to occur.

Since Armenia's occupation of the Azerbaijan territory of Nagorno-Karabakh in the early 1990s, the two states are having serious conflicts to date. Hence, it is very unlikely for these states to cooperate on any subject let alone transboundary water issues in the near future.

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[125] Ibid.

[126] Axel Klaphake and Waltina Scheumann , "Coruh River Basin: Hydropower Development and Transboundary Cooperation" Kibaroğlu, op.cit. p. 270.

Currently, there is neither an agreement nor a joint body covering the entire Kura-Aras River Basin. Bilateral commissions between Armenia and Iran, between Azerbaijan and the Iran still act on the basis of the Agreement between the Soviet Union and Iran of 1957. Bilateral commissions on boundary waters between Armenia-Turkey and between Georgia-Turkey act on the basis of the Convention between Soviet Union and Turkey of 1927. Since 2004, there is an Interstate Commission of Armenia and Turkey on the 'Use of Akhuryan Water Reservoir'. In order to address inter alia the cooperation in the area of monitoring the environmental safety of transboundary waters, including the assessment of pollution in the Kura River, and joint clean-up measures, the 'Intergovernmental Commission on Economic Cooperation of Azerbaijan and Georgia' acts since 2004.[127] Later in 2007, a Memorandum of Understanding between Georgia and Azerbaijan was signed which covers the establishment of a working group on exchanging information and joint monitoring of transboundary waters shared by the two countries.[128]

Turkey's transboundary agreements in the region are also majorly act on the basis of the agreement signed between Turkey and USSR in 1927. The most important boundary rivers used to be shared between Turkey and the Soviet Union were the Posof, Arpacay and Aras. After the dissolution of the Soviet Union, Posof now forms a border between Georgia, Arpacay and Aras are now shared with Armenia. The 1927 'Protocol on the Beneficial Uses of Boundary Waters' which covers inter alia, Arpacay and Aras rivers is still in force. Bilateral commissions on boundary waters between Armenia and Turkey as well as between Georgia and Turkey still act on the basis of this protocol.

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[127] UNECE (2009) River basin commissions and other Institutions for transboundary water cooperation, Economic Commission for Europe Convention on the Protection and Use of transboundary Watercourses and International Lakes, "Capacity for Water Cooperation in Eastern Europe, Caucasus and Central Asia", ECE/MP.WAT/32. New York and Geneva: United Nations. p. 46
http://www.unece.org/fileadmin/DAM/env/water/documents/CWC%20publication%20joint%20bodies. Accesssed 17 May 2013

[128] Klaphake, op.cit. p. 271

In 1964, another agreement between Turkey and the USSR was signed. The provisions of the 'Protocol on the Joint Construction of the Arpacay Dam' mainly cover rules concerning joint dam construction the waters of which would be shared on a fifty-fifty basis that was previously provided by the 1927 protocol. Accordingly, both parties are free to use their share of water for irrigation purposes and may build a hydropower plant in their territories. The protocol also addresses the quantity of water use downstream of the dam up to the Iranian border as well issues of allocation of construction costs and the compensation for land losses and the founding of a joint dam commission. The 1964 protocol was later followed by the "Cooperation Agreement on the Construction of a Dam on the Bordering Arpacay (Ahuryan) River and the Construction of a Dam Lake" which was signed in 1973 and entered into force in 1975. The provisions of this agreement play a key role particularly in envisaging regulations concerning transboundary tributaries. The last agreement between USSR and Turkey was signed in 1990. This agreement includes joint prevention of shifts in the riverbeds of Arpacay, Coruh, Posof and Caksu rivers and collaboratively construct necessary facilities to adjust the watercourses [129]

Turkey's cooperation status with Iran dates back to 1955 when "The Protocol on the Joint Utilization of the Waters of the Sarisu and the Karasu River" was signed. In this protocol, basic water use principles were covered regarding the shared rivers. Accordingly, the parties may develop irrigation facilities on their portion of the river after agreeing on the need of using water for irrigation. In addition, it was agreed that Turkey's would release 1,8 cubic meters per second water from the Sarisu River to Iran under all circumstances. Regarding Karasu, riparian states were agreed on fifty-fifty allocation of water[130]

The agreements are generally focused on water use, water allocation, border issues and water infrastructure construction. There is no comprehensive approach towards

[129] Ibid., p. 271-272
[130] Ibid., p. 272

the protection of freshwater ecosystems of the basin. Very limited attention is paid water quality, biodiversity, and other ecologic concerns. Only insufficient bilateral agreements exist between Georgia-Armenia, Azerbaijan-Georgia regarding water quality. Cooperation on data exchange is also lacking between the riparian states.

There have been no agreements involving all five riparian states in the Kura-Aras River Basin so far. Given the political conflicts, it seems unlikely to settle on any agreement with the participation of all riparian states. On the other hand, there is an increasing interest of international organisations and institutions to the basin. United Nations, European Union, Germany and NATO are some of those global actors who initiate, fund and conduct projects concerning Kura-Aras. However, exclusion of Turkey and Iran from most of those initiatives is noteworthy. Almost all of them seek to provide cooperation merely between Armenia, Georgia and Azerbaijan. There is only the UNDP/GEF[131] funded project which involves Iran and Turkey.[132]

3.5 Euphrates-Tigris Rivers System Basin[133]

Since the Middle East is one of the most arid regions of the world, scarce water resources of the region such as Nile, Litani and Jordan rivers, have been subject to conflicts between riparians. Euphrates and Tigris[134] are also two major rivers in the Middle East which originate in Turkey and are shared by Syria and Iraq. The rivers basin is of great significance both for the upper riparian Turkey and the downstream riparian states Syria and Iraq (See Figure 7).

[131] United Nations Development Programme/ Global Environmental Facility

[132] See full project document on http://www.kura-aras.org/4._Demo_Projects_files/UNDP-GEF%20Kura%20Aras%20DPIW%20report%20ENG-FINAL%20APPRVD.pdf Accessed 17 May 2013

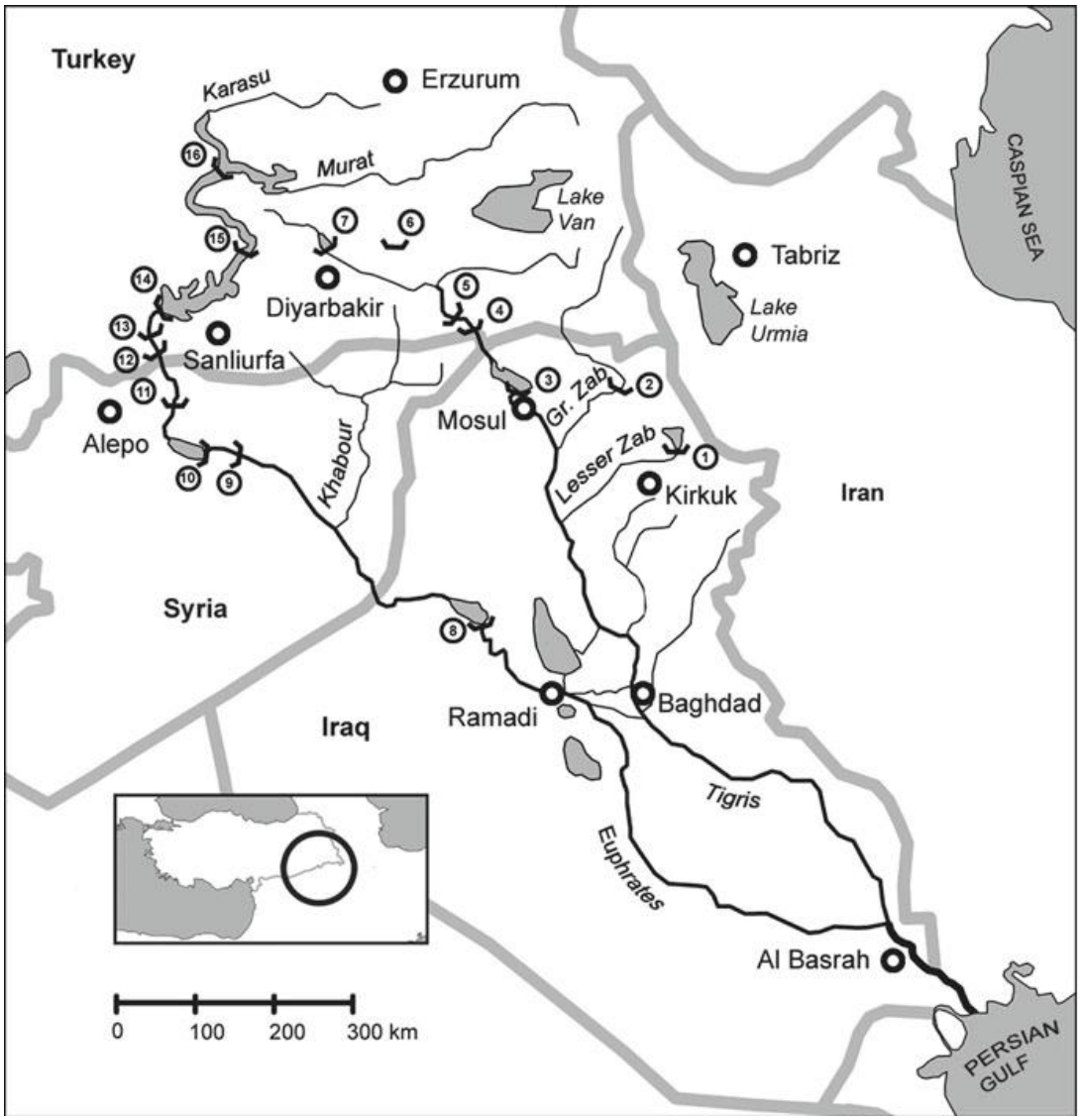
[133] DSI states that Republic of Turkey considers Euphrates-Tigris as one single basin. In some sources it is called Euphrates-Tigris 'Rivers System' and some others call Euphrates-Tigris 'River Basin'

[134] 'Euphrates' and 'Tigris' are the internationally used names of Fırat and Dicle in Turkish originate from Arabic names Al-Furat and Dijla.

Turkey's transboundary water relations with the riparians started to exacerbate in 1960s when Turkey decided to launch large water resource development projects on the basin to utilize Euphrates and Tigris rivers for power generation and irrigation. However, the downstream riparians were uncomfortable about these intentions of Turkey as they perceived these attempts of Turkey as a threat to their water use of the rivers. Immediately after Turkey, downstream riparians also give rise to water resource development efforts in response to those investments in Turkey.

Water disputes were also accompanied by other political issues such as Syria support to terrorist activities in Turkey and the historical dispute on Hatay. Under the circumstances, growing mutual distrust and enmity between the riparians to a large extent hampered cooperation and agreement for a long time in the Euphrates-Tigris River Basin.

Figure 7 Euphrates-Tigris River Basin[135]



1-Dukan Dam, 2-Bekhme Dam (unfinished), 3-Mosul Dam, 4-Cizre Dam, 5-Ilisu Dam(under construction), 6-Batman Dam, 7- Kralkizi Dam, 8-Haditha Dam, 9- Al Baath Dam, 10-Tabqa Dam, 11-Tishreen Dam, 12-Karkamis Dam, 13-Birecik Dam, 14-Ataturk Dam, 15-Karakaya Dam, 16-Keban Dam

[135] Kibaroglu, A., 2011, p.278

3.5.1 Hydrology, Geography, Climate and Water Uses

Euphrates is one of the two main branches of Euphrates-Tigris River Basin. It originates from mountainous regions of Eastern Turkey from a height of ca. 3600m. Other two riparians of Euphrates are Syria and Iraq. Euphrates is mainly fed by snow melt as well as tributaries and numerous streams. After having several tributaries in Turkey, long term average annual flow reaches 31.6 billion m³ according to the measurements of Birecik station near the Syrian border.[136] The Euphrates and its tributaries drain an approximate catchment area of 444 000 square kilometres. Almost 33 per cent of this basin area is located in Turkey, 19 per cent in Syria, and 46 per cent in Iraq (See Table8).[137]

Table 8 Catchment Areas of Euphrates and Tigris

River	Basin Area (square kilometres)	Percentage of Basin Area			
		Turkey	Syria	Iraq	Iran
Euphrates	444,000	146,520 (33%)	84,360 (19%)	204,240 (46%)	(Not Riparian)
Tigris	387,000	57,600 (14.9%)	1000 (0.3%)	292,000 (75.3%)	36,400 (9.5%)

In Turkey, the Euphrates has two main tributaries which are Murat and Karasu rivers. Other significant tributaries of Fırat are Tohma, Peri, Çaltı ve Munzur Rivers. These tributaries spring from the northwest of Van Lake in Turkey. Keban Dam, one of the most important water resource development projects of the Euphrates-Tigris River Basin was constructed in Kharput, where Murat and Karasu rivers merge and constitute the main watercourse of the Euphrates (See Figure 7). Keban Dam is followed by Karakaya, Ataturk and Birecik Dams through the

[136] Özden Bilen, Hydro Political and Technical Assessment of the Waters in the Middle East, 2001 http://www.ozdenbilen.com/ozdenBilenYayinlari.aspx Accessed 8 April 2013

[137] See http://www.ozdenbilen.com/ozdenBilenYayinlari.aspx Accessed 8 April 2013

downstream in Turkish territory. The Euphrates then leaves Turkish territory at Karkamis and enters into Syrian territory. Euphrates is ca. 3000km long 1230km of which lies in Turkey.

Euphrates has two main tributaries in Syria which are the Balikh and the Khabour Rivers. Khabour is constituted from many tributaries some of which originate in Turkey and some of which originate in Syria. In total, it has a significant contribution of 0.2 billion cubic meters to the Euphrates River. Euphrates flows for about 710km in Syrian territory before it enters Iraqi border.

In Iraqi territory, Euphrates flows for about 1060km. During this course in Iraq, Euphrates receives no further water contribution to its flow. Euphrates passes through Ramadi and then reaches to Al-Qurnah where it is confluence with Tigris and form Shatt-al-Arab[138] before they flow for 200km and empty into Persian Gulf together.

The mean annual flow of the Euphrates is 35 billion cubic metres 90% of which is contributed by Turkey and 10% is contributed by Syria, while Iraq has zero contribution (See Table 9).[139]

Table 9 Mean Annual Discharges and Contributions of Riparians in Euphrates and Tigris Rivers

River	Mean Annual Flow (BCM)	Contributions of Riparians to Water Flows (BCM)			
		Turkey	Syria	Iraq	Iran
Euphrates	32	28.922 (33%)	3.213 (10%)	0.0 (0%)	(Not Riparian)
Tigris	52	20.840 (14.9%)	0.0 (0%)	26.571 (51%)	4.689 (9%)

[138] Shatt-al-Arab means "Stream of the Arabs" in Arabic
[139] Bilen., op. cit.

The second significant branch of Euphrates-Tigris Rivers System is the Tigris River. The Tigris River originates in Eastern near the Lake Hazar and joins with the Euphrates River in Iraq. It springs from the east of Elazig city of Turkey flows through south-eastern Turkey, Diyarbakir. From Cizre to the point where it confluences with Habur river, it forms a border between Turkey and Iraq for about 40km and then it enters Iraqi territory.

Main tributaries of Tigris are Batman, Garzan, Habur, Botan, Lesser Zap, Great Zap and Anbar rivers. Great Zap and Lesser Zap which join Tigris in Mosul constitute almost 50 per cent of the water flow of the river in Iraq. Tigris and its tributaries drain an area of 387,600 square kilometres of which 15 per cent lies in Turkey, 0.3 per cent in Syria, 75 per cent in Iraq, and 9.5 per cent in Iran (See Table 8).

Measurements of Cizre observation station at the Turkish border indicate that Tigris has a mean annual flow of 21.3 billion m^3 at the border. As Tigris enters Iraq its water flow is contributed by various tributaries. Mean annual flow of Tigris is 52 BCM/year, which accounts for about 1.5 times as much as Euphrates. Approximately 40 per cent of Tigris flow is contributed by Turkey, 51 per cent by Iraq and 9 per cent by Iran (See Table 9).

The climatic conditions of the Euphrates-Tigris River Basin are characterized by dry summers and precipitated winters. Since the main source of flows of the rivers is snowmelts, the flow of the basin makes peak in spring season between March and May. These conditions apply for both south-eastern Turkey and northern Syria and Iraq. Precipitation in these regions ranges between 400 and 600mm. On the other hand, annual rainfall is rarely above 200mm in the Mesopotamian Plain which makes the agriculture highly dependent on irrigation.

In summer season, evaporation is very high due to hot and dry climatic conditions with midday temperatures approaching 50°C. It leads to water salinization and water loss in major reservoirs in Turkey and Syria, as well as in Lake Habbaniya

and the Thartar Canal in Iraq. Evaporation is also influential in Shatt-al-Arab region. Since the slope is very low and the topography is very flat, the rivers become quite shallow and have a very large surface area. Because of this, most of the water in downstream of the basin is lost in a wide area of salinated swamps and marshlands.[140]

As for water use patterns, agricultural purposes are the dominant in the Euphrates-Tigris River Basin. However, irrigated agriculture is unequally developed in the three riparian states. Iraq has been utilizing the waters of Euphrates to irrigate over 1 million hectares of land for a long time. Syria has featured irrigation works up until 1970s after the completion of Tabqa Dam. In Turkey, irrigated lands increased to 114,000 hectares after the completion of Ataturk Dam in 1990. The riparians have been targeting further expansion of irrigated lands. Turkey will be irrigating 1.7 million of lands when the Southern Anatolia Project is completed. Syria and Iraq are also envisaging to irrigate 640,000 and 500,000 hectares of additional lands respectively. These provisions of increased water use are not only threatening the water resources of the basin but also the relations between the riparians.[141]

In addition to irrigation, water development investments for flood protection and drought management also take place in the Euphrates-Tigris River Basin. The reservoirs constructed by Turkey on Tigris regulate the waters of Tigris and to a large extent prevents floods in the downstream.

Another important pattern of water development is hydropower in the river basin. Since 1960s riparians have been reciprocally constructed a series of dams for hydropower generation as well as water supply. The largest one among these attempts is beyond doubt, Turkey's South-eastern Anatolia Project (GAP). In the context of GAP project, significant dams on Euphrates are; Keban, Karakaya, Ataturk, Birecik and Karkamis and the dam projects on Tigris are; Kralkızı,

[140]Ibid., p.281
[141] Ibid., p.281-282

Batman, Silvan, Sason, Kaser, Garzan, Ilisu ve Cizre.[142] In Syria; Tabqa, Al-Baath and Tishreen are the major dams in addition to three more Dams on Khabour. (See Figure 7)

In Iraq, on the other hand, since the altitude generally low and rarely exceeds 300m, it is not possible to construct large dams on Euphrates.[143] Hence the topography does not allow to build regular dams in the Iraqi territory, the Thartar Canal (depression) the keystone of Iraq's water development, was built between the Tigris and Euphrates northwest of Baghdad in 1988. Thartar with its surface area of 2 710 km^2 is twice as the capacity of Ataturk Dam. It is filled through diverting water from Tigris against floods. Thartar Canal also enables to alleviate water shortages in the Euphrates Basin by diverting water from the Tigris water into Lake Thartar and from there into Euphrates when water is insufficient to use in the dependent irrigation projects. [144]

3.5.2 Transboundary Water Relations in the Euphrates-Tigris Rivers System

The water disputes regarding the Euphrates-Tigris Rivers System date back to 1960s when the riparians started constructing large-scale water development projects on the rivers. The early projects were mainly purposing water flow regulation for flood and drought management. However, subsequent projects have had more assertive targets including hydropower generation, drinking water supply and irrigation projects for large agricultural areas. However, the envisagements of the riparian states on Euphrates-Tigris are over the water potential of the rivers. Unilaterally developed projects have been pressuring the capacity of the rivers. Increasing

[142] See http://www.gap.gov.tr/gap/gap-in-bilesenleri/gap-toprak-ve-su-kaynaklari-gelistirme-programi Accessed 17 April 2013

[143]Ayşegül Kibaroğlu, Olcay Ünver, An institutional framework for facilitating cooperation in the Euphrates-Tigris river basin. International Negotiation, Vol 5, No.2, 2000, p. 311–330

144 K., McLachlan, Southeast Anatolia Project (GAP) and Its Effect on Water Supply and Water Management in Iraq, University of London, London 1991 cit. in. Kibaroglu A., Building a regime for the waters of the Euphrates-Tigris river basin. Kluwer Law International, London, The Hague, New York,2002, p. 210

population and food security concerns to a large extent increased the water demands of the riparians. As the proposed demands exceeded the supply, disputes started to emerge.

In the 1960s, when Turkey decided to construct the Keban Dam for hydropower generation on Euphrates, downstream riparians expressed their concerns about the water quantity during dam filling process. Dam filling is a temporary period for hydropower dams right after the construction and such kind of dams do not continue to reduce the water afterwards. Especially, Iraq was demanding a minimum of 350 cubic meters per second during the dam filling period. Vis-à-vis the demand of Iraq, a first meeting was held in 22-27 June 1964 with Turkish and Iraqi experts attending. Syria and Iraq have opposed dams built within the project by Turkey, particularly during the periods of water filling for the dams, on the grounds that water amount that they would get may decrease or would be contaminated, hence tried to bring the issue to international fore. Vis-à-vis the concerns of the downstream riparians' concerns, despite the fact that Keban Dam was aiming at energy generation rather than water supply purposes, Turkey guaranteed to allocate an average of 350 cubic meters per second downstream of Keban Dam during dam filling period which later agreed to be increased at 450 m^3/s in 1966.[145]

During in the meetings in 1964, Turkey also for the first time expressed one of the main principles of Turkey's transboundary water policy regarding Euphrates-Tigris Rivers which is "The two rivers constitute a single basin."[146] Since then, Turkish officials insistently advocating this principle in almost every realm of transboundary water relations regarding Euphrates-Tigris river basin system. Main reason for advocating this principle is that, it is only possible to completely meet water demands of the three riparian states when the total water potential of the two rivers is considered together.

[145] Personal communication with Salim Fakioglu, Ministry of Forestry and Water Affairs, Directorate General of Water Management, Department Head of Water Law and Water Policy; former head of Investigation and Planning Department, Devlet Su Isleri (DSI), 23 March 2013.

[146] Personel Communication with H.E. Ambassador Mithat Rende Director General for Economic Affairs of the Ministry of Foreign Affairs, 17 April 2013

Scientific calculations carried out by Turkish experts revealed that it is unfeasible to meet the water demands of both Syria and Iraq merely from the water potential of Tigris when it is considered apart from the rivers basin system. [147]

Also in the June 1964 meetings, Turkey proposed the establishment of a Joint Technical Committee (JTC). This committee would carry out studies to determine the actual annual flow of Euphrates and Tigris. The committee would also determine the water demands of the riparians for future and existing projects. These studies would form a basis in order to identify the main principles and procedures of a future agreement.[148]

In 1965, the first tri-partite meeting was held in Baghdad with the participation of Turkish, Syrian and Iraqi delegations. During this meeting, diverting a part of the Tigris waters to Euphrates brought to agenda by Turkey and Syria. Iraq refused this suggestion and insisted on negotiating only on the waters of the Euphrates. In the same meeting, parties exchanged date regarding Keban Dam in Turkey, Tabqa Dam in Syria and Haditha in Iraq.[149]

In 1970s, three countries continued to hold meetings for exchange of information about technical issues relating to Keban, Tabqa and Haditha. In spite of the cooperation endeavours, no agreement was reached and Turkey and Syria unilaterally determined own dam filling programmes for their reservoirs.[150]

Consequently, the first crisis occurred between the riparians when Turkey started filling the Keban dam in February 1974. Turkey particularly chose the winter season, February, to fill the reservoir instead of irrigation season. Almost at the same time, however, Syria almost completed the construction of the Tabqa Dam. Since two countries started to fill the reservoir at the same time, a water stress occurred in the Euphrates River. Thus, a crisis occurred first between Syria and Iraq in 1975. Iraq accused Syria of releasing very low amount of water, while Syria

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[147] Fakioglu, op. cit.

[148] Ibid.

[149] Ibid.

[150] Ibid.

blamed Turkey for the water shortage in Euphrates. However, Iraq was not convinced and continued blaming Syria. As the crisis escalated between the parties, Saudi Arabia intervened as a mediator. Saudi Arabia reconciled and convinced Syria to provide the required to Iraq.[151]

In 1980s, as the water demand on the Euphrates and Tigris rivers increased, parties sought to build a new dialogue for cooperation. Almost sixteen years after Turkey's proposal of forming a Joint Technical Committee (JTC) in 1964, this time Iraq proposed the formation of a permanent JTC. In the context of the first meeting of the Joint Economic Commission between Turkey and Iraq in 1980, a JTC was established. Syria joined JTC in 1983 and three countries held sixteen meetings until 1993. The principal mission of the JTC was defined as determining the methods and procedures to find out the reasonable and appropriate amount of water which is needed by country from both rivers. The main issues on the JTC's agenda were; hydrological and meteorological data exchange, information sharing on progress achieved in the construction of dams and irrigation systems, and discussing the initial plans for the filling of the Karakaya and Ataturk reservoirs. However, after sixteen meetings, the JTC could not fulfil its mission, and the talks became deadlocked.

A number of issues led to the deadlock of JTC negotiations. One of them was the problematic of whether considering the Euphrates and the Tigris as a single water system, or whether the discussions should be limited to the Euphrates. The parties could not reach a consensus on whether to formulate a proposal for the 'sharing' of 'international rivers', or to achieve a trilateral regime to determine the 'utilisation of transboundary watercourses'. Iraq and Syria consider the Euphrates an 'international' river. They insist on a sharing agreement under which stipulates Euphrates waters would be shared according to the stated water needs of country. On the other hand, Turkey insists on considering the Euphrates and Tigris as a

[151] H. Doğan Altınbilek, Water and Land Resources Development in Southeastern Turkey. Water Resources Development, 1997.

single transboundary river basin. Hence the waters should be allocated according to the identified needs of the riparians.[152]

One of the main arguments of Turkey is downstream riparians' unrealistically high water demands relying on inaccurate data regarding irrigational, domestic and industrial water needs as well as actual water potentials of two riparians in Euphrates and Tigris. Since the states have not been accomplished any cooperative technical study, research or measurements, all of the data provided so far in fact remain uncertain. The downstream riparians accede neither cooperation nor accurate data exchange often on the pretext that such data involves state secrecy. Turkey on the other hand, favors transparency and is willing to data exchange. [153]

Accordingly, Turkey suggested The Three-Staged Plan for Optimal, Equitable and Reasonable Utilization of the Transboundary Watercourses of the Euphrates-Tigris Basin in 1984. The first stage of the plan sets forth, in each country, determination of the total water potential; the second stage suggests identification of water demands especially those irrigational ones since they constitute the majority of the water demands; and the third stage offers to provide solutions and to lay out actions for water use with reference to data provided in the first and second stages.

Because Turkey argues that, if the actual total water potential of the Euphrates-Tigris was considered, and distributed in line with the internationally acceptable scientific criteria; the water will be sufficient for the demands of all three riparians as long as the actual demands are determined and revealed. [154] However, those efforts of the upper riparian were not found acceptable mainly because the

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[152]Ayşegül Kibaroğlu, Fırat-Dicle Havzası Sınıraşan Su Politikalarının Evrimi: İşbirliği İçin Fırsatlar ve Tehditler, Orsam Ortadoğu Analiz, July 2012, Cilt 4, Sayı 43, p.74-75 http://www.orsam.org.tr/tr/trUploads/Yazilar/Dosyalar/2012719_inceleme2.pdf Accessed on 7 August 2012

[153] Presentation of Salim Fakioglu, at Water Law and Water Policy Specialization Council, Ministry of Forestry and Water Affairs, Directorate General of Water Management, Department Head of; former head of Investigation and Planning Department, State Hydraulic Works (DSI), 17 May 2013.

[154] Fakioglu, op. cit.

downstream riparians were concerned that outcome and the solution of the plan would risk their long term irrigational purposes. In addition to that, the downstream riparians remained reluctant since they perceive this attempt of the upstream riparian to solve the issue by its own means as a manifestation of its sovereignty.

Fifteen years after Turkey's proposal, in 2010, Turkish, Syrian and Iraqi ministers, who are responsible for water management issues of their country, agreed to implement the first stage of the three stage plan during a meeting in Ankara with a fifteen years delay.[155]

In 1990, Turkey finished the construction of Ataturk Dam on Euphrates and started filling the reservoir in January. Since there is no irrigational water use in January it was deliberately chosen to not to aggrieve the downstream riparians. Moreover, Turkey informed the downstream riparians in November 1989 before reducing the water and provided the riparians detailed information about the process. During this period, Turkey also released a double times the usual amount of water, in doing so allowed them to store excessive water supply and to the take necessary measures at the downstream. During the water the water filling period of Atatürk Dam on the other hand, Turkey declared to undertake to provide a discharge of 500 cubic meters per second downstream from the dam.[156] While Turkey fulfilled all its commitments on providing 500 cubic meters per second while Syria released almost no water to Iraq during the construction of Tabqa Dam which brought the two Arabian states on the verge of war.

Nevertheless, Turkey could not get away from being accused of violating the international law and using water as a political weapon when the flow of water was completely cut for only thirty days. Consequently, parties initiated meetings but negotiations were interrupted due to Iraqi invasion of Kuwait in 1990 and one again

[155]Dursun Yildiz, Orsam Su Söyleşileri 2011, ORSAM Rapor No: 144, ORSAM Su Araştırmaları Programı Rapor No: 17, January 2013, p. 12

[156] Bilen, op. cit. pp. 88-92

failed during the meetings in 1992 since Turkey rejected Iraqi request to share the waters of Euphrates and release 700 cubic meters in all circumstances to Iraq.[157]

At present, as significant transboundary policy principle, Turkey also advocates considering "proportional water sharing instead of quantitative water sharing." In this sense, assurance of 350 cubic meters from Keban and 500 cubic meters to Atatürk are recognized as temporary commitments during the dam construction periods and are not intended to prolong in case of reaching an agreement with the downstream riparians in the future. However, it is noteworthy that Syria already favoured 'proportional' sharing instead of 'quantitative' sharing of 500 cubic meters of water as 42% and 48% between Iraq and itself with a treaty in 1989. [158]

In 1996, the latest significant crisis occurred when Turkey started the construction of Birecik Dam on Euphrates. Although Birecik Dam's construction purpose was regulating the waters of Euphrates and would not alter the water flow, both Syria and Iraq sent diplomatic notes to the Turkish government in 1996 in objection to the dam construction on the grounds that it would jeopardize their water use. Moreover, Syria and Iraq requested that Arab League states to cease financial aid to Turkish projects and boycott European companies that had financed the Birecik Dam[159]

The Adana Security Protocol which was signed between Turkey and Syria in 20 October 1998 is a touchstone for the relations between the two riparians. Turkey had been long requesting Syria to cease the terrorist organisation PKK[160] and extradition of the PKK Leader Abdullah Ocalan. However, Syria was not responding Turkey's requests via diplomatic channels. As the terrorist activities of

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[157] Aaron T. Wolf, Middle East Water Conflicts and Directions for Conflict Resolution, Washington D.C. International Food Policy Research Institute. 1996.

[158] Personal communication with Fakioglu, S., 23 March 2013. For Turkey's water policy principles, see also Ministry of Foreign Affairs website http://www.mfa.gov.tr Accessed on 17 April 2013

[159]Waltina Scheumann, The Euphrates issue in Turkish-Syrian relations. In: Brauch HG, Liotta PH, Marquina S, Rogers PF, El-Sayed Selim M (eds) Security and Environment in the Mediterranean. Conceptualising Security and Environmental Conflicts. Springer, Berlin, 2003, p.750

[160] Abbrevation for Partia Karkeren Kurdistan which means Kurdistan Workers' Party

PKK exacerbated in Turkey in the mid1990s, Turkey pursued a more decisive policy against Syria and PKK, separating the water and security issues. Syria considered Turkey's attempts seriously and agreed to sign the Adana Security Protocol in 20 October 1998 which enabled to develop bilateral relations between the two states especially those security-related ones. Accordingly, Syria recognised PKK as a terrorist organisation, closed PKK camps and ceased the logistic support. Ocalan was also deported from Syria on 9 October 1998, just before the signing of the agreement.[161]

In the light of the rapprochement in the bilateral relations between Turkey and Syria introduced by the Adana Security agreement, the parties continued taking steps to establish mutual trust. From 2000s on, a series of events provided a positive environment for the relations of Turkey and Syria.

The most significant development after the Adana Agreement was the signing of the Free Trade Agreement on 22 December 2004 between Turkey and Syria. The two riparians have further improved their economic relations and have signed this first trade agreement which actually recognizes state boundaries. During the official visit of the Syrian President Bashar Assad to Turkey in 2004 the two countries recognized the borders of each other with the Agreement on Avoidance of Double Taxation and Agreement on Reciprocal Promotion and Protection of Investment. Assad's visit was significant and symbolic because it was the first visit ever made by a Syrian president. These trade agreements with corresponding assurances to open Syrian trade missions in Hatay were considered to imply de facto recognition of the current borders by Syria.[162]

In 16 September 2009, Turkey and Syria agreed on organizing meetings under a High-Level Strategic Cooperation Council. On December 23 and 24, 2009 Turkey

[161] F.Stephen Larrabee, "Turkey Rediscovers the Middle East", Foreign Affairs, July/August, 2007, p.109

[162] Scheumann op. cit. p. 309

and Syria signed at the first meeting of the High-Level Strategic Cooperation Council in Damascus, 50 agreements including a number of water and environment related Memoranda of Understanding which are as follows:

1. Memorandum of Understanding between the Government of the Republic of Turkey and the Government of the Syrian Arab Republic for the Construction of a Joint Dam on the Orontes River Under the Name "Friendship Dam".
2. Memorandum of Understanding for Syria's Draining Water from Tigris River for Irrigation.
3. Memorandum of Understanding for Drought Management and Effective Use of Water Resources.
4. Memorandum of Understanding for Improvement of Water Quality
5. Memorandum of Understanding in the Field of Meteorology
6. Memorandum of Understanding for Cooperation in the Field of Environmental Protection.[163]

The second meeting of the High-Level Strategic Cooperation Council was held on 2-3 October 2010 in Latakia city of Syria. In this meeting, the progress of the agreements which were signed during the first meeting was assessed.[164]

In January 2011, in Syrian city of Daraa[165] social movements emerged and then spread to Latkia, Homs and then Aleppo. As the internal affairs of Syria have become complicated, relations with Turkey also affected by the political instability in Syria. The relations between Syria and Turkey continued in cooperation up until March 2011. However, when Turkey's support to opposition movements became visible, relations with Syria entered a negative course. Turkey's criticising Syria on

[163]See http://www.mfa.gov.tr/no_-211_-1-ekim-2010_-turkiye-suriye-yuksek-duzeyli-stratejik-isbirligi-konseyibakanlar-ikinci-toplantisi-hk_.tr.mfa Accessed 17 December 2012

[164] http://www.mfa.gov.tr/turkiye-suriye-yuksek-duzeyli-stratejik-isbirligi-konseyi-ikinci-bakanlar-toplantisi-basintoplantisi.tr.mfa Accessed 17 January 2013

[165] Daraa is a Syrian agricultural city which is suffering economic problems and water shortage.

every occasion opening the boundaries to Syrian refugees increased the tension and jeopardized further cooperation between the riparians.

3.6 Orontes River Basin

Orontes[166] is one of the transboundary water basins of Turkey, in which it is the downstream. The other riparians of the river basin are Lebanon and Syria. The Orontes River originates from Bekaa Valley and Lebanon, passes through Syria and empties into the Mediterranean Sea from Turkish territory. Syria's clearly different attitude towards the Euphrates-Tigris River Basin as being the downstream riparian and that towards the Orontes River as being the upstream riparian is the most outstanding issue of this river basin which underlies the dispute between the two riparians.

Riparians have not been settled on the status of the Orontes River to date, whether it is a 'transboundary' water or an 'international' water. Turkey officially advocates considering the rivers which cut across Turkey are 'transboundary' waters. Hence, Turkey claims sovereign rights while emphasizing the principle of 'equitable utilization'. Syria, in return, argues that this kind of waters should be considered as "international" waters. Then, they are not subject to 'equitable utilization'; rather they should be "shared".[167]

Bilen argues that, although Turkey, as being the upstream riparian in Euphrates-Tigris River Basin, agreed to release almost the half of the water to downstream states Syria and Iraq with the 1987 protocol, Syria as being the upstream in Orontes, has not been considering the demands of the downstream Turkey. Moreover, Syria intentionally avoids starting negotiation regarding this river.[168]

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[166] Orontes is called "Asi" in Turkish and "Nahr al-Asi" in Arabic.

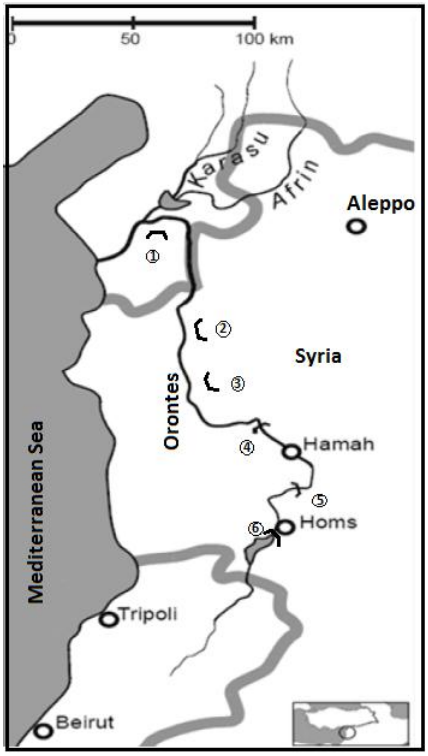
[167] Bilen, 2000, op. cit. p.105

[168] Scheumann (et. al.) Orontes River Basin: Downstream Challenges and Prospects for Cooperation, Turkey's Transboundary Water Policy, 2011, p. 301

There are two main underlying reasons to this attitude of Syria. First, Syria is concerned that, Turkey might use against Syria the same arguments of being the upstream in Euphrates in the case of Orontes where Syria is the upstream. [169] Second, if the Orontes River is negotiated on an official ground, it will mean Syria recognizes Turkey's sovereignty on Hatay.[170]

These political disputes accompanied with Syria's support of the terrorist organization PKK against which Turkey to a large extent constituted an impediment for cooperation for a long time.

Figure 8 Orontes River



1-Yarseli Dam, 2-Zeizoun Dam,3- Afamia Dam,4-Mahardeh Dam, 5-Al Rastan Dam, 6-Qattaneh Dam

[169] Gün Kut, "Ortadoğu'da Su Sorunu ve Türkiye", ed Prof Dr. Haluk Gülman, December 1991, p.112

[170] A southern province of Turkey at the Syrian border.

3.6.1 Hydrology, Geography and Water Uses

The Orontes rises in the Bekaa Valley in Lebanon flows for about 40km in Lebanon and then flows north through Syria. As enters Syria, it empties into Qattaneh reservoir. After 16km from the Lebanese border, it empties into Homs Lake in city of Homs. Then it flows through city of Haman, crosses the Asharmeh plain for 24 km then reaches Al-Ghab Valley which is 48 km long. From the lower end of the Valley, to the Turkish border is about 39 km. As Orontes reaches the border, it forms a boundary between Syria and Turkey for about 31km. After it enters into Turkish territory, it flows through west for about 90 km and then discharges into the Mediterranean Sea in the Turkish province of Hatay, city of Samandag. [171]

Orontes covers a total catchment area of 37,900 square kilometers of which 49.94 percent lie in Turkey, 44.32 percent in Syria and 5.74 percent in Lebanon. Although there are various different information in different sources regarding the total length of the river, it is estimated to be ca. 450km long. Out of its total length of 450km, 40km are in Lebanon, 320km in Syria, and 90km in Turkey. The catchment area covers 37,900 square kilometers of which 49.94 percent lie in Turkey, 44.32 percent in Syria and 5.74 percent in Lebanon. The main tributaries of Orontes are Afrin and Karasu rivers. The Afrin River crosses Syrian territory and then it enters into Turkish territory again. Finally it empties into Lake Amik in Hatay. The Orontes has a mean annual discharge of ca. 2.8 BCM. Lebanon makes a contribution of 11 per cent, Syria 43 per cent and Turkey 46 per cent to this annual discharge of Orontes.[172] (See Table 10)

[171] Bilen, 2009 op. cit. p.87
[172] Ibid., pp. 87-90.

Table 10 Mean Annual Discharge and Catchment Area of Orontes River Basin

Country	Mean Annual Discharge (BCM)	Contributions of Riparians (%)	Catchment Area (km^2)	Percentage of Riparians (%)
Lebanon (upstream)	0.3	11	2,175	6
Syria (upstream)	1.2	43	16,797	44
Turkey (downstream)	1.3	50	18,972	50
Total	2.8	100	37,900	100

In Syria, annual rainfall ranges between 300 and 800mm, and annual evaporation between 1,200 and 2,000mm. Under these climatic conditions, Syria has given weight to ground water and surface water developments. In order to create dry lands for irrigational agriculture, Syria started to systemically drain the Al-Ghab marshes in 1950s. In this context, the Orontes River bed was also enlarged and deepened, and dams were built to regulate the flow of the river and to provide water for irrigation. The Al-Ghab Project was which started in 1958 and completed in 1967 covers 46,000 hectares of irrigation. Al-Ghab is one of the major projects of Syrian economy which led to attraction of additional migration especially that of farmers to the region. A World Bank study indicates that Syria supplies 20 per cent of its estimated total water use volume from the Orontes River and ranks second to the Euphrates River. Syria's water use per sector from Orontes is; 82 per cent agriculture, 8 per cent domestic water supply and 10 per cent industry.[173]

Consequently, a vast majority of the water discharge of Orontes are largely utilized by In Syria. Waters of Orontes are regulated by Lake Homs, Rastan and Mehardeh

[173]Scheumann W., (et al). Orontes River Basin: Downstream Challenges and Prospects for Cooperation, A. Kibaroglu et al. (eds.), Turkey's Water Policy,, Springer-Verlag Berlin Heidelberg 2011, p. 302-303

Dams and consumed by irrigation facilities. There are also new initiatives to irrigate a new area of 30,000 hectares of reclaimed swamplands in the Ghap depression. 20,000 hectares of Hama-Homs irrigation project near Hama Lake and 70,000 hectares of Ghap are also the Syrian projects on Orontes. A number of new dams are also under construction on the tributaries of Orontes (See Figure 8). Almost all of the Orontes waters are exhausted by the water development projects of Syria which has serious negative effects on the ecological water environment of the river. In summer season, the amount of water in Orontes falls as low as 3 cubic meters per second due to excessive water use of upstream Syria.[174]

Although Lebanon's principal sector of water use is agricultural irrigation, Orontes is not the principal water resource for irrigation for Lebanon. Waters of Orontes are used relatively less by Lebanon. Litani and Litani-Awali are the main irrigational water resources of Lebanon. Syria and Lebanon signed a bilateral agreement in 1994 concerning the water sharing between the two riparians. Accordingly, Lebanon agreed to use an annual share of 80 million cubic meters (MCM) out of 420 (or 510) MCM. [175]

The only major water development intention of Lebanon envisages a multi-purpose dam project on the Orontes River. However, it has not been realized so far due to financial problems. Downstream Syria objected the project at the beginning but later consented. The project includes providing water supply to the cities of Hermel and Baalbek; irrigation water for 6,100 hectares of land; to construct the Asi Dam to irrigate land in the Bekaa Valley, and to install a hydropower plant.[176]

In the Turkish part of the Orontes river basin, there are twelve projects in total. The projects are intended to regulate the flow of the river and its tributaries in order to provide water for irrigation, domestic needs, to generate hydropower and to protect land and settlements from floods. Four of the twelve projects are currently in operation and irrigate 14,067 hectares of land and produce 17.0 GWh/year of energy with a capacity of 3.30 MW. Two of the projects are in construction and they will

[174] Bilen, op. cit. p.87
[175] FAO Aquastat 2008 cit. in Scheumann W., (et al).op. cit. p. 304
[176] Ibid., p. 305

irrigate 8,019 hectares and provide 0.95 million cubic meters of drinking water per year when they are finished. Remaining six projects are yet planned they will irrigate 77,489 hectares, protect 20,000 hectares of land from floods, provide 36.43miliion cubic meters drinking water per year, and, with an installed capacity of 1.60 MW, produce about 62.77 GWh/year. When the projects under construction and in planning are completed, the total irrigated area will cover 99,575 hectares, 180 GWh/year of energy will be generated, 37 million cubic meters drinking water per year will be provided, and 20,000 hectares of lands will gain flood protection.

On the other hand, Turkey argues that these plans cannot be realized with the water currently released by Syria. The irrigation projects of Syria especially the 20,000 hectares of Hama-Homs (20,000 hectares) and the Al-Ghab (70,000 hectares), enables Syria to use almost 90 per cent of water flow which reaches an annual average of 1.2 billion cubic meters Lebanese-Syrian border. However, only 120 million cubic meters of water is released from the Syrian Turkish border to Turkey after it is substantially used by Syria. Moreover it will further decrease to 25 million cubic meters in case the planned reservoirs of Ziezoun and Kastoun in Syria are completed. Indeed, Syria might be able to satisfy its drinking water and hydropower demands with the Jisr el Shugur Embankment, the Al-Rastan, Mahardan, Zeizoun and Kastoun dams on the Orontes.[177]

3.6.2 Transboundary Water Relations in the Orontes River Basin

Turkey signed the first agreement regarding the Orontes River with France, on behalf of Syria under the French mandate, on 20 October 1921. It was addressing the Qweik (Balik) river which was located in southern Aleppo. The Qweik rises from Turkey and has a mean annual flow of 0.2 billion cubic meters. According to the agreement, the water of this river would be equally shared between Aleppo and

[177] Ibid., p. 306

the region in the Turkish territory. However, today Aleppo's water supply is provided by Tabqa Dam.[178]

On 19 May 1939, Turkey and Syria signed "The Final Protocol to Determine Syria-Hatay Border Limitation" which was mainly stipulating the "equal" use of Orontes and its tributaries Karasu and Afrin's waters at the regions where they form a boundary between the two riparian states. While quantity of the water utilization is stipulated, no limitation was brought in terms of the purpose of the water use.[179]

In 1950, Syria applied World Bank for the funding of the Al-Ghab Project and an agreement was signed between the parties. Accordingly, the World Bank carried out a series of studies regarding the project. The World Bank assumed that the Al-Ghab project would not endanger the water usage in the Orontes river basin and flood control installations would benefit all riparians in winter, and the water flow in summer would be sufficient to irrigate all agricultural areas in the basin. However, the World Bank organized a tripartite with the participation of the representatives of Turkey and Syria. In this meeting, Turkish officials expressed their concerns about the floods that would occur during construction and in irrigation seasons no water would remain in Orontes for Turkey.[180]

In 1962, Syria assigned another agreement with a Dutch private company NEDECO. Since the project was not considering the water use needs of Turkey, the Turkish part objected to this project. A meeting was held between the participation of experts from both parties. During this meeting, Turkey offered a draft protocol which stated that a river basin development plan should include measures for flood protection, early warning system for flood protection, and feasibility studies of

[178] Ibid., p. 306

[179] Orhan Tiryaki, Sınıraşan Sular ve Ortadoğu'da Su Sorunu, 21.Yüzyılın Gündemi: SU, Cem Ofset, Istanbul, 2003, p.59

[180] Personal communication with Salim Fakioglu, Ministry of Forestry and Water Affairs, Directorate General of Water Management, Department Head of Water Law and Water Policy; former head of Investigation and Planning Department, Devlet Su Isleri (DSI), 23 March 2013.

construction of a dam on the border to irrigate the Amik Plateau. However, the parties could not reach an agreement.[181]

In 1972, Syria and Lebanon signed an agreement regarding the Orontes River. According to this agreement it was agreed that 80 million cubic meters of the Orontes water would be allocated to Lebanon annually. However, this agreement has not entered into force due to some political reasons.[182]

Later on 20 September 1994 "Bilateral Agreement Concerning the Usage and Sharing of the Waters of the Al-Asi River" between the Syria and Lebanon was signed. It was stipulated that 80 million cubic meters of water per year would be allocated to Lebanon. In return, 340 million cubic meters of water per year would be allocated to downstream Syria. In other words, only 19 per cent of the water coming from upper riparian Lebanon is allocated to use of itself. In addition to this unjust allocation of water, control and supervision of Syria over Orontes waters is provisioned with many of articles of the same agreement.[183]

According to 1994 agreement, the Orontes River was recognized as 'common waters' by Syria and Lebanon. It was also agreed that, if the annual flow of the river falls under 400 million cubic meters, the water allocated to Lebanon would be reduced proportionally. The part of Orontes which lies in Lebanese territory would be controlled and managed by a joint technical committee. The management of the main stem and the tributaries of the river within Lebanese territory would be under the responsibility of both countries, although it was to be financed by Syria only. The issues regarding the river would be solved by a joint committee. In cases in which this committee fails to solve any conflict, the problem would be transferred to a higher committee to be established. The agreement also covered provisions

[181] Dante A. Caponera, Legal aspects of transboundary river basins in the Middle East: The Al Asi (Orontes), the Jordan and the Nile. Natural Resources Journal, XXLIII, no 3, 1993, pp.629-663, 1993, cit. in Scheumann W., (et al), p. 308.

[182] Cemal Zehir, ‚Ortadoğu'da Su Medeniyetlerinden Su Savaşlarına, Su Vakfı Yayınları, 2003

[183] Bilen, op. cit. p. 88

regarding wells and artesian waters. Lebanon would notify Syria about any further installations and related usage. The amount of water to be used these groundwater resources would be discounted from Lebanon's share of 80 MCM[184]

This agreement between Syria and Lebanon reveals the political and military influence of Syria over Lebanon. This agreement encountered reactions in Lebanese public opinion on the grounds that it was not enacted under free and equitable conditions in legal, technical and political terms. Turkey also reacted to this agreement because downstream Turkey was excluded, and were neither notified nor consulted and this is in fact violation of the principles of international law.[185]

The main obstacle for the cooperation between Syria and Turkey regarding the Orontes River is Syria's deliberately avoiding to negotiate the Orontes River with Turkey. Turkey, argues that Orontes should be included along with Euphrates-Tigris in the context of the negotiations conducted under the Joint Technical Committee which operates until the 1980s. However, Syria is refusing to negotiate Orontes officially. According to Syria, Hatay is Syrian territory, and since the Orontes flows through and empties into Mediterranean Sea from Hatay, it is a 'national water' and therefore cannot be discussed internationally. The main reason to this approach of Syria is negotiating the Orontes in any official level will mean acknowledging Turkey's sovereignty over Hatay.[186]

After the signing of the Adana Security Protocol in 20 October 1998, relations of Turkey and Syria entered a rapprochement period. The first significant indicator of the rapprochement is the signing of Trade Agreement on 22 December 2004. This agreement is of importance because with signing it, borders of the two states were identified and Syria in a sense, officially recognized Hatay as a Turkish territory.

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[184] Scheumann, op. cit. p. 308

[185] Ibid., p. 308.

[186] Mehmet Gönlübol., "1983-1990 Dönemi, Türkiye'nin 1980'li Yıllardaki Dış Politikasının Bir Değerlendirmesi", Mehmet Gönlübol (et. al.) Olaylarla Türk dış Politikası (1919-1990), Ankara, Siyasal Kitabevi, 1993, p.619-620

Syria's signing of the Free Trade Agreement was interpreted by Turkish authorities as acknowledgment and recognition of Turkey's borders including the province of Hatay.[187]

Moreover, in 22 December 2004, during Turkish Prime Minister Erdogan's official visit to Syria, construction of a joint dam on the Orontes River appeared on the agenda. During this visit, the Turkish Prime Minister suggested cooperation and promised technical assistance to the Syrian Prime Minister Otari. Erdogan further proposed a joint dam project to be built on the Orontes River which would provide water to irrigate 20,000 hectares in Turkey and 10,000 hectares in Syria. The dam would also produce hydropower for Turkish and Syrian needs and to improve flood control. The parties agreed that a joint technical delegation would be established to study the technical issues regarding the construction of the joint dam. Accordingly, a Turkish-Syrian delegation carried out studies in the Syrian part of the Orontes to examine the topographical and geological characteristics of the region as well as the risk areas that will be affected by the construction. The joint delegation determined the sites that were suitable for the construction of the dam.[188]

On 23-24 December 2009 during the first meeting of the High-Level Strategic Cooperation Council in Damascus, Turkey and Syria signed 50 agreements and Memoranda of Understanding, inter alia, the "Memorandum of Understanding between the Government of the Republic of Turkey and the Government of the Syrian Arab Republic for the Construction of a Joint Dam on the Orontes River Under the Name 'Friendship Dam'."

The ground breaking of the "Friendship Dam" which was envisaged in the first Memorandum of Understanding was made with the participation of the prime ministers of the two countries in 6 February 2011. According to the Memorandum of Understanding signed in 2009, the costs of the dam will be undertaken equally by

[187] Scheumann op. cit. p. 309

[188] Ibid., p. 309

Turkey and Syria. The Friendship Dam will be 22,50 metres high and will serve for irrigation, flood protection and hydropower generation. When the construction of the dam at the border is completed, it will enable to irrigate 8,000 hectares of agricultural lands, many settlement areas will be protected from flood, and it will generate 16 GWh of energy per year with an installed power of 9 MW.[189]

However, the political movements in Syria starting from January 2011 also affected Syria's foreign policy as well as those with Turkey. Turkey's deliberate support of Syrian opposition and criticising the Syrian regime significantly altered the relations of the two countries. Construction works of the 'Friendship Dam' is therefore, drifted after the political developments between and now it is on stand-by until an undetermined date. The denouement of the so-called exemplary project of "Friendship Dam" will be clear as the internal politics of Syria and its relations with Turkey become stabilised.

[189] http://www.dsi.gov.tr/basinbul/detay.cfm?BultenID=247 Accessed 17 December 2012

CHAPTER 5

CONCLUSION

The main focus of this thesis has been Turkey's transboundary water policy. This thesis sought to examine extent realism, one of the grand theories of the international relations discipline, is dominant on Turkish transboundary water politics. Analyzing Turkey's transboundary water relations and status of cooperation in each of its five transboundary river basins, it is argued that realism is dominant on Turkey's transboundary water politics. However, there are certain number exceptions.

Despite its deficiencies, realism provides an applicable framework of analysis to understand the transboundary water politics between the states. It has been widely referred by the scholars who are involved in international relations to explain the conflicting water politics of transboundary waters in various parts of the world. Realist paradigm has been chosen as a framework of analysis for this study, because it highly applies to conflicting nature of transboundary water politics. Especially in questioning the states' reluctance to cooperate, main assumptions of the realist paradigm of international relations maintains comprehensive answers.

Water is a significant element of power for the states in a self-help international system. In the absence of central authority, all states have to survive by themselves and have to become self-sufficient. The states are unwilling to cooperate in an anarchic, self-help international system and in the absence of a common government. In such a system, states are motivated by fear and distrust, and their principal concern is to maintain their security and survival. Therefore, it is no surprise that behaviours of states in transboundary river basins are often dominated by mutual distrust and fear when one riparian initiates a water development project on the shared river. Turkey's case, especially in the Euphrates-Tigris Basin is no exception to this.

In this thesis, Turkey's transboundary politics in its five transboundary river basins have been examined. Methodologically, current status, management and major problems of the Turkish transboundary waters in each basin have been analyzed through hydrological and geographical features, climatic conditions, water quality and quantity issues, water uses and water development projects. Cooperation and conflicts in the transboundary water relations of Turkey with its riparian states in the shared river basins were chronologically analyzed within the framework of bilateral and multilateral agreements, occasions, joint committees and projects where applicable.

First of all, although there are disputes on various issues in the transboundary river basins of Turkey, it is very unlikely these disputes to become as serious conflicts as to end in a 'water war'. It also applies for the most conflictive ones shared with Syria; the Euphrates-Tigris and the Orontes. Considering the ups and downs in Turkish-Syrian relations and the tension which made its peak during the preparation of this thesis study, it can be said that even if a war breaks out, obviously the reason will not be the water dispute.

In almost all transboundary river basins of Turkey, as well, there have been various non-water related political problems between Turkey and its riparian neighbors which usually hamper cooperation. Water issues are intertwined with national security, interstate rivalry, political power and economic development. In Turkish-Syrian case for example, Hatay issue and terrorism. The riparian states are very often, unable to separate water issues from other political problems. When mutual distrust exists, states perceive each other's development efforts a threat to their national security. In transboundary water relations, upstream riparian state's water development construction attempts are translated into a threat to its water security by the downstream riparian state. The water demands of the downstream riparian on the other hand, are perceived as a threat to state sovereignty by the upstream riparian.

When examined in a realist perspective, disputes are very likely to occur in the asymmetric positions of upstream-downstream setting of states in a shared river basin. In Turkey's case, the expected upstream-downstream conflicts have been observed where Turkey is the upstream. On the other hand, water politics of the Meric and the Orontes river basins are distinguished as exceptional cases where Turkey is the downstream.

One of the main challenges of Turkey's transboundary water politics is the different characteristics of European, Caucasian and Middle Eastern neighbours in different basins. In addition to that, in some aspects, Turkey's being upstream riparian in Coruh, Kura-Aras and Euphrates-Tigris; and downstream in Meric and Orontes river basins, have different implications on water politics of each basin. This is not always because of Turkey, but for example, Syria's changing approach in different riparian locations.

However, in this thesis study, examination of Turkey's water politics in its transboundary river basins revealed that, whether being rudimentary, bilateral, official or unofficial; each basin involves certain levels of cooperation. It can be argued that the upstream or downstream positioning is not necessarily a reason for conflict or a means for cooperation.

Grounds of dispute on the other hand, vary from basin to basin. As discussed in the previous chapters, while the main problem is usually water quantity in the Euphrates and Tigris; it is flood in the Meric River and the sediment issue in the Coruh River Basin. Water quality, ecologic status, biodiversity and such environmental concerns usually remain as relatively minor issues; however, disputes regarding these issues are inevitably on the rise in the Orontes, the Meric and the Kura-Aras river basins. Protected delta of the Meric, freshwater ecosystem problems of the Kura-Aras, heavy pollution in the Orontes and biodiversity issues in all three are the outstanding problems.

As Turkey has to adopt horizontal (e.g. Environmental Impact Assessment (EIA)) and framework (e.g. Water Framework Directive (WFD)) EU legislation, the accession process influences not only the EU member riparian neighbors but also those others. For example, Turkey has to make EIA for further dam constructions and hydropower plants on any river basin including those shared with non-EU member states. According to EU WFD, Turkey is obliged to reach "good" water quality status in its water bodies which also includes specific quality measures for transboundary ones. Moreover, in case of membership, since EU is a party, Turkey will also become a party of international conventions to which it voted against previously, namely the Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1992).

In the Meric River Basin, the relations between riparian states considerably improved. The distrust and past enmity between Turkey and its Balkan neighbours seems to cease. However, there has been no trilateral agreement or any other joint action which would involve all three parties does not exist, so far. The existing bilateral agreements do not include provisions for water quality standards. Their provisions usually address flood protection and data exchange regarding floods; joint infrastructure projects and environmental conservation of protected areas. There is no agreement on water allocation. Exchange of information regarding water quality still lacks. Turkey's irrigational development provisions leads to disturbance on the Bulgarian side. On the other hand, the joint Tunca Dam whose construction was stipulated by a protocol signed between Bulgaria and Turkey in 2006, has not been materialized yet. EU membership of Greece and Bulgaria and candidateship of Turkey is expected to a means for establishing better transboundary relations.

In the Coruh River Basin, there has been no dispute regarding water quantity. Political relations between the parties are pursued in a positive manner bilaterally. There is no new agreement regarding water shared expect those were signed with Soviet Union which stipulates fifty-fifty sharing of waters. As for the sediment flow

issue, the parties conducted joint technical studies and cooperation actions to examine the potential impacts to be occur in the Batumi coast deriving from the dams in the context of the Coruh River Basin Development Plan. The project with its high hydropower potential, is significant for Turkey and all the dams within the project are either constructed or under construction now. However, Georgia still has not been convinced about Turkey's compensation assurances and the issue yet remains unsettled.

The Kura-Aras River Basin is a highly conflict-prone basin with its five riparians especially with those of Armenia and Azerbaijan. Up to now, the basin witnessed long conflicts and serious clashes between two states. Although the conflicts stem from ethnic and religious rather than water disputes, protracted enmity between Armenia and Azerbaijan hampers cooperation in the basin. Not being as serious as that with Azerbaijan; Armenia's mistrust and political problems with Turkey also remains as an obstacle for multilateral cooperation. Only incomprehensive bilateral agreements exist between Georgia-Armenia and Georgia-Azerbaijan. Both ongoing political conflicts between the riparian states and concerns on water quantity as well as threats on water quality, the basin is prone to further disputes in the near future.

The roots of conflict, along with other political issues, mainly stem from unilateral water development projects on Euphrates-Tigris Rivers System. The transboundary water disputes between Syria and Turkey, and those between Iraq and Syria regarding Euphrates and Tigris rivers started in early 1960s when the riparian states started to construct Keban (Turkey), Tabqa (Syria) and Haditha (Iraq) dams in their territories. Especially during the reservoir fillings of Keban Dam and Tabqa Dam concurrently by Turkey and Syria, and during the filling of Ataturk Dam, the basin witnessed serious conflicts. Up to now, numerous agreements and memoranda of understanding have been signed; meetings have been held; Joint Technical Committees have been formed; High-Level Strategic Council has been established; all of which being bilateral. There has been no tripartite agreement regarding water quantity or common approach for water sharing. While the concerns between

Turkey and Iraq remaining unchanged, Turkish-Syrian relations entered a new period in 1998.

The rapprochement period after the 1998 Adana Security Agreement between Syria and Turkey was followed by a series of agreements regarding various subjects; however one of which was a touchstone in the relations of two states. Up to The Trade Agreement signed on 22 December 2004, Syria was unwilling to officially negotiate the Orontes with the Euphrates and Tigris Rivers due to its concerns about the status of the Turkish province of Hatay. As Syria signed the Trade Agreement, it is largely accepted that of Syria's acknowledged Turkey's sovereignty over Hatay. After 1998 Adana Security Agreement, Syria ceased PKK support and expelled its leader Abdullah Ocalan. With signing the Trade Agreement in 2004, Hatay issue was somehow solved. Thus, two protracted underlying obstacles for cooperation were removed between two riparian states. Vis-à-vis the main grounds of conflict were settled, subsequent steps of cooperation were taken. During the first High-Level Strategic Cooperation Council meeting in 2009, more than fifty agreements and Memoranda of Understanding were signed. Five of them were related to water and environmental issues. Among them, a Memorandum of Understanding was envisaging the joint construction of "Orontes Friendship Dam" whose ground breaking ceremony was made in 2006.

However, the rapprochement process was impeded by the deteriorating relations since January 2011 due to the opposition movements first emerged in Daraa city of Syria and then spread to Homs and Aleppo. Syria's domestic political problems also affected its foreign relations as well as those with Turkey. Turkey's deliberately supporting the opponents of Assad government and accepting Syrian refugees created a rift between two states. Needless to say, one of the prominent symbols of cooperation, construction of the "Orontes Friendship Dam" has been ceased first in the Syrian site of construction and then in the Turkish territory; which best describes the current status of cooperation. The parties, like they used to be in the past, are once again unable to separate water issues from those non-water ones.

Scholars who are engaged in examining the dominancy of realism over transboundary water politics commonly argue that the strong upstream states insists on sovereignty, incite conflicts and are usually reluctant to cooperate. Overall water politics of Turkey in the Euphrates-Tigris Rivers system fits in these realist arguments when the course of events is considered.

On the other hand, although there have been certain disputes on various issues in the transboundary river basins of Turkey, it is very unlikely these disputes to become as serious conflicts as to end in a war, even in the Euphrates-Tigris River Basin. Even the parties currently have tense relations; water does not seem to the main reason for a potential war or serious conflict.

Serious cooperation attempts also exist as exceptions in the Euphrates-Tigris River Basin, and should not be underestimated even they are overshadowed by conflicts and disputes. Turkey is internationally known to be a 'strong' sovereign upstream state who does not release water to its 'weaker' Arab neighbors. Beyond doubt, sustained adverse publicity made by Turkey's Arab neighbors in various international occasions plays a principle role in this reputation.

In addition, Turkey's remaining aloof from international law and reluctance to sign the international water treaties is one of the main reasons for Turkey's transboundary relations to be perceived as problematic in the international arena. Since Turkey will eventually become a party of agreements signed by the EU, Turkey's membership will require the solution of transboundary water-related disputes in line with the 1992 Helsinki Agreement which is expected to shift the transboundary water politics of Turkey in the future.

It can be argued that, Turkey's transboundary water relations have relatively improved during the process of Turkey's alignment with the EU acquis in the chapter of environment since it was opened in December 2009. Turkey's accession

negotiations have apparently brought a different dimension to transboundary water relations of the country in many aspects.

It can be said that improvements in Turkey's transboundary water relations are usually parallel with the overall foreign relations of Turkey with its neighbours. For instance, friendly relations with Georgia influence the relations to remain less problematic in the shared basins. Shifts in the political relations of Syria in the periods after 1998 and until 2011, considerably affected the water relations of the riparian states. With Greece, historical mistrust and enmity are replaced with a more collaborative approach in the recent years which also led to closer cooperation in water relations. Similar situation applies for the relations with Bulgaria considering cooperation steps taken in the Meric River Basin.

In this thesis study, examination of Turkey's water politics in its transboundary river basins revealed that, whether being rudimentary, bilateral, official or unofficial; each basin involves certain levels of cooperation. It can be argued that the upstream or downstream positioning is not necessarily a reason for conflict or a means for cooperation.

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INTERVIEWS

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Ministry of Foreign Affairs
17 April 2013

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YAZARIN

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TEZİN ADI (İngilizce) :
Turkey's Transboundary Water Policy: Dominance of the Realist Paradigm?

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1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. [ ]
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. [ ]
3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz. [X]

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: