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ADDIS ABABA UNIVERSITY



ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF POLITICAL SCIENCE AND INTERNATIONAL RELATIONS

**CHALLENGES OF COOPERATION IN THE NILE AND EUPHRATES-TIGRIS
BASINS: A COMPARATIVE ANALYSIS**

BY

TARIKU RAGA LENCHO

ADDIS ABABA, ETHIOPIA

MAY, 2014

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**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF AAU IN
PARTIAL FULFILLMENTS OF THE REQUIREMENTS FOR THE AWARD OF THE
DEGREE OF MASTERS OF ARTS IN INTERNATIONAL RELATIONS**

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APPROVED BY THE BOARD OF EXAMINERS

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Acknowledgement

First, my innumerable praise goes to the Almighty GOD for giving me the opportunity, capacity and guidance throughout my study life. Many people in one way or another contributed for the accomplishment of this thesis. Among these, Yacob Arsano (PhD), my advisor, deserves special appreciation for his unreserved guidance, invaluable assistance, constructive comments and relentless effort exerted in advising me throughout doing this thesis. My deepest admiration also goes to my beloved wife, Workinesh Kebede for she has been beside me in tough and challenging times and provided me support in every direction of my life. I have been greatly supported by the love and encouragement of my beloved wife.

I want to extend my gratitude to my families particularly Ato Sutuma Wakjira (my brother) and his wife Ababaye for their moral and material support throughout my study life. In addition, Dr. Mekonnen Kebede and his wife, w/ro Almaz also deserves special thanks for making my stay in Addis Ababa for the last two years favorable and unforgettable.

Last but not least, I would like to thank my friends Biruk Bafikadu (Adama University staff), Dirriba Mengesha (Ambo University staff), Birhanu Libdi (Haramaya University staff), Indalkachew Birhan (Madda Walabu University staff) for their moral and material support.

Abstract

The Nile and Euphrates-Tigris Rivers are shared Rivers known by tensions between the riparians over its utilization, despite attempts at cooperation has been made at different times. This study aimed to make a comparative analysis of challenges to cooperation in the Nile and Euphrates-Tigris basins in order to identify from the two basins which is better in terms of attempts of cooperation. Eventhough numerous scholarly works exists on the two River basins, there is a lack of comparative studies which tries to examine challenges to cooperation and identify the river basins approaching to create consensus on its utilization.

The research has mainly based on secondary resources and related literature. To this end, the study has been employed the qualitative research method and utilized descriptive and exploratory techniques in order to review the factors hindering cooperation in the shared Rivers of the Nile and Euphrates-Tigris.

Despite several factors which hampered the cooperation efforts in the two river basins, attempts at cooperation is not ignored. This can be observed from attempts at cooperation from Hydromet, Undugu, TECCONILE and NBI and later CFA in the Nile basin. In case of the Euphrates-Tigris River various agreements and protocols have been signed and entered into at different times; institution like JTC was created to this end.

The major findings among other things include, even though various factors might challenge the cooperation efforts of the two basins, the important ones include: the unbalanced nature of water contribution and benefit accrued between the riparian states, the role of colonial legacy, Non-water issue/issue linkages/, Absence of NGO/CSO involvement and public participation, unilateral water development activities, Adherence to conflicting international water law doctrines, the existence of weak institutional mechanism, the role of power distribution between the riparians. Thus, the challenges observed in both basins are similar with different magnitudes of impeding their cooperation efforts. In addition, as observed from the result of the comparative analysis of the two basins, the Nile River Basin riparians is more approaching to consensus on equitable utilization than the Euphrates-Tigris basin. The evidence for this is that the Nile basin riparians are on the last step of creating Nile Basin Commission while the Euphrates-Tigris riparians are on the initial step of Joint Technical Committee meeting which at this time is not effectively functioning.

Key Words: *Cooperation, Conflict, Euphrates-Tigris, Nile River, Shared River Basins*

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List of Acronyms

AKP	Justice and Development Party
BCM	Billion Cubic Metres
CFA	Comprehensive Framework Agreement
CIDA	Canadian International Development Agency
CSOs	Civil Society Organizations
DRC	Democratic Republic of Congo
EIIPD	Ethiopian International Institute for Peace and Development
ELF	Eritrean Liberation Front
EN-SAP	Eastern Nile Subsidiary Action Project
EPLF	Eritrean People’s Liberation Front
ETIC	Euphrates-Tigris Initiative for Cooperation
FSA	Free Syrian Army
GAP	Greater Anatolia Project
GERD	Grand Ethiopian Renaissance Dam
GOLD	General Organization for land development
HEP	Hydro Electric Power
HYDROMET	Hydro-meteorological survey of lakes Victoria, Kyoga, and Albert
IIL	Institute of International Law
ILA	International Law Association
ILC	International Law Commission
ISS	Institute of Security Studies
IPE	International Panel of Experts
JTC	Joint Technical Committee
KRG	Kurdistan Regional Government
NBC	Nile Basin Commission
NBI	Nile Basin Initiative

NEL-SAP	Nile Lake Equatorial Region Subsidiary Action Project
NGOs	Non-Governmental Organizations
Nile –COM	Nile Council of Ministers
Nile-SEC	Nile Secretariat
Nile-TAC	Nile Technical Advisory Committee
PKK	Kurdistan Workers’ Party
RBOs	River Basin Organizations
RDA	Turkey’s Regional Development Administration
SAPs	Subsidiary Action Program
SIWI	Sweden International Water Institute
SNC	Syrian National Council
SPLM/A	Sudan Peoples’ Liberation Movement/Army
SVPs	Shared Vision Program
TECCONILE	Technical Cooperation Committee for the Promotion of the Development and Environment Protection of the Nile
TPLF	Tigray Peoples’ Liberation Fronts
UN	United Nations
UNDP	United Nations Development programs
UNESCO	United Nations Educational, Scientific and Cultural Organization

CHAPTER ONE

1. Introduction

1.1. Background of the study

When we look at the earth from space, it is easy to understand why our planet is called a blue planet, since three fourths of the earth's surface is covered by water. Unfortunately, 98% of this surface water is in the oceans. The remaining two percent comprises the fresh water supplies of the world. Therefore, we humans actually have easy access to only small amount of the water available on the earth. Only 12,400 km³ of freshwater is available for human consumption and use, and the renewable supply is less than 1% (Wolf, 2006:3).

The Nile is one of the longest rivers in the world and traverses 6,700 kilometers through some of the poorest countries in Africa – Rwanda, Burundi, Democratic Republic of Congo, Tanzania, Kenya, Uganda, Eritrea, Ethiopia, Sudan, South Sudan and Egypt. These eleven Nile riparian states have a total population of 396 million, of which nearly half are directly dependent on fresh water from the river for their survival (Swain and Jamali, 2011:10). The Nile is broad, embracing nearly 2 million square miles of equatorial and North-East Africa (one tenth of African continent) (Yassin, 2003:7). The waters of the Nile essentially come from rainfall on the Ethiopian highlands and the catchment areas of the Equatorial lakes. Ethiopian highlands provide 86% of the Nile waters while the remaining 14% comes from the Equatorial Lakes region (Yacob, 2007:26).

The River is economically significant where around 160 million people in the basin are directly dependent on the Nile for their livelihood i.e. for fishing, agriculture, drinking and transportation. Despite the rich resources of the Nile, many of the basin countries are characterized by poverty and food shortages. About half of the riparians are among the ten poorest countries of the world (Swain and Jamali, 2011:12). Wide spread conflict, environmental degradation and frequent natural disasters like drought and famine are the characteristic feature of the countries.

Eventhough they contribute none, Egypt and Sudan are the intensive users of the Nile water for a long period of time. Ethiopia, which contributes a lions share to the River utilized small of amount without taking into consideration the Grand Ethiopian Renaissance Dam/ GERD/ which

the construction is under way. Downstream State's monopolization/unilateral approach to water utilization brought controversies with upstream states, particularly Ethiopia. Upstream States did not accept Egypt's claim of historic and natural Rights including the previous colonial agreement/1929 and 1959 agreement/ which they are not part of it.

On the other hand, the Tigris and Euphrates are two of the longest and most famous rivers in the world. Both of them rise in the mountains of south-eastern Turkey and share a twin basin which passes through Syria and Iraq, leading to their confluence near Basra, where they join to form the Shatt-al-Arab in lower Iraq. After the Karun River joins the Shatt-al-Arab, it empties into the Persian Gulf. With many of their physical, climatic, hydrologic and geomorphologic characteristics shared, it is common to treat them as a single basin for the purposes of integrated development and management (SIWI, 2012:16).

The four riparian countries in the Euphrates-Tigris basins are Iran, Iraq, Syria and Turkey and the last three countries are the dominant in terms of water contribution and utilization. Turkey is the upstream country and contributes 90% of the water of the Euphrates and the remaining 10% originates in Syria (Kibaroglu, 2000: 6). Iraq makes no contribution to the Euphrates River. In case of Tigris, Turkey contributes approximately 40% of the total annual flow, whereas Iraq and Iran contribute 51% and 9 % respectively. No Syrian water drains into the Tigris (ibid). The River is economically significant for more than 140 million people (Lupu, 2007:11) who depend on this resource for their livelihood.

These two river basins (the Nile and Euphrates-Tigris) have been presented as the pivotal regions of severe water scarcity and crisis. Because of this, tensions on water utilization started to emerge during the 1950's and 1960's in both River basins with the commencement of different development projects. Within the Nile basin the first confrontation started between Egypt and Sudan immediately after independence of the latter claiming that the water sharing quota stated in 1929 agreement was not fair and in favor of the Egyptian interest. The confrontation between the two countries ended with the renegotiation of water sharing agreement of 1959 which increased the amount of water from 4 Billion Cubic Metres to 18.5 Billion Cubic Metres for Sudan. There was a tension between Egypt and Ethiopia during the Derg regime when Ethiopia planned to construct a development project on Blue Nile. In addition, the recent tensions

between Ethiopia and downstream states particularly which Egypt started after launching of GERD can also be cited as another incidence of confrontation over Nile water utilization in which it is difficult to predict the end result.

In cases of the Euphrates-Tigris Rivers, we can observe severe hydropolitical tensions on water utilization between the riparian states of Turkey, Syria and Iraq starting from 1960's to the present. Until the early 1960s, the Tigris-Euphrates basin was characterized by a relatively harmonious relationship between Turkey, Syria, and Iraq. During this time, none of the countries undertook large-scale development projects, and flooding posed the largest threat to the riparians. Growing populations and the resultant need for increased food and energy production pushed the riparians to begin development projects in the 1960s (Kibaroglu, 2008:8). This in turn increased tensions between them and began the continuing controversies over the use of the Tigris-Euphrates basin.

However, despite the prevalence of tensions in both River basins on water utilization, there have been attempts to bring cooperation between the riparian states for equitable and reasonable utilization of the common resources for the benefit of their people. For instance, in case of Nile Basin, the establishment of Nile Basin Initiative (NBI) which later resulted in the signing of Comprehensive Frame work Agreement (CFA) by majority of the riparian state is an important achievement towards bringing cooperation. On the other hand, the formation of Joint Technical Committee in 1983 (JTC) and different consecutive discussion in the Euphrates-Tigris basin is an important beginning towards cooperative environment.

Even though there was a progress in the cooperative efforts of the two river basins, many challenges have been facing the cooperation efforts to become realized. In cases where a river basin organization does not present in a river basin, riparians may follow unilateral strategy of water utilization and this might create strained relations between them which at last lead to tensions and conflict. The ongoing tensions between the riparians of the two River basins are the most examples (Kibaroglu, 2007:12). Within this context, this thesis aimed at examining the challenges to cooperation efforts in the Nile and Euphrates- Tigris with the aim of identifying the River basin approaching to create cooperative spirit in utilizing the resources.

1.2. Statement of the Problem

Both the Nile and Euphrates-Tigris basins are shared by many countries and the conflicting interests of upstream and downstream states have been historically polarized and generated tension that inhibited cooperative efforts. Interactions between the riparian nations have been historically characterized by mutual distrust, intimidation, and competition. The three riparians of the Euphrates-Tigris River: Turkey, Syria, and Iraq had co-existed with varying degrees of hydropolitical tension through the 1960s (Kibaroglu, 2007). Unilateral water developments came very close to warfare between Syria and Iraq in 1975. Military tensions flared between Turkey and Iraq in 1997, as Turkey invaded northern Iraq to attack Kurdish rebels in the area. The same is true between Sudan and Egypt during the 1950's and between Ethiopia and Egypt under the Derg regime on Nile water utilization. Despite these tensions, there have been attempts to create a basin wide cooperation in both river basins for the past half a century. However, this does not mean that the cooperative efforts of the two River basins have been fully achieved at the level expected.

Here the logical question is that what does the existing literature say about the comparative analysis of conflict and cooperation and the challenges to cooperation in shared river basins in general and the Nile and Euphrates-Tigris basins in particular? As per the researcher's knowledge, no study was conducted regarding the comparative analysis of the factors hindering cooperation/challenges to cooperation/ in both Nile and Euphrates-Tigris River basins with a purpose of identifying the river basins' approaching to create consensus on common utilization. Despite the sensitivity of the issue, little or no attention has been given to challenges to bring cooperation by scholars of Hydropolitics in shared river basins in general and the Nile and Euphrates-Tigris River basins in particular. However, there are many literatures on conflict and cooperation of shared river basins of the Nile and Euphrates-Tigris Rivers. What was lacking is the literature on comparative analysis of the challenges to co operation or factors hindering the two Rivers in terms of creating cooperative utilization.

Here are some related literatures concerning the comparative study of cooperation in shared River basins and factors hindering the cooperation efforts or the challenges to cooperation. These

include Lowi (1993), Nicol (2001), Mason (2004), Kibaroglu (2007), Elias (2009), Akanda et.al (2007) & Swain and Jamali (2011).

Lowi (1993), in his study entitled “Water and Power: the politics of scarce resources in the Jordan River Basin” briefly compared the shared river basins of the Nile, Indus and Euphrates-Tigris in terms of their geopolitics under the section ‘Nile, Indus, and Euphrates-Tigris: A case study’. The study attempted to compare the three rivers only in terms of their geopolitical importance and did not focus on comparative analysis in other areas. In addition, the major developments in the River Basins for the last two decades (like NBI, CFA, Egyptian Revolution, the independence of South Sudan and issues of GERD) were not included since there is a time gap which this study takes into consideration. Furthermore, the cases considered in this study are the Nile and the Euphrates-Tigris basins with the aim of knowing the river basin approach to create cooperation.

Nicol (2001) compared the Nile and Okavango River basins under the section “the Dynamics of River Basin Cooperation: the Nile and Okavango basins”. The study identified the similarities and differences between the two River basins in the areas of population, number of riparian states, the area of the two rivers, volumes of available water. Here focus was only on the Nile and Okavango and does not include Euphrates-Tigris River basin and his aim was not to know the basins which is approaching to cooperation. In addition, in his area of comparison it is difficult to know whether conflict or cooperation is prevailing in the two river basins and factors hindering their cooperation efforts were not discussed. This study fills literatures gaps in this regards by providing a comprehensive analysis of cooperation efforts of the Nile and Euphrates-Tigris River basins and factors hindering it with a purpose of knowing the river basins which is better in terms of approaching cooperation.

Mason (2004) shortly compared the River basin management in the Nile, Rhine, Mekong and Euphrates-Tigris Rivers under the section ‘Generalization, Synthesis and Outlook’. The comparison was done only by few criteria which include multi-track conflict management, power asymmetry, existence of legal frame work and the human environmental fit. Thus, the focus was on river basin management of the four river basins by focusing on the above criteria and no attention was given to the factors hindering the cooperation efforts of the riparian states concerned.

Kibaroglu (2007) has got a section on the comparison of the causes of water crisis in the Jordan, Nile and Euphrates-Tigris Rivers. His argument was that factors such as supply- induced; demand driven, structural scarcity and colonial legacy are the causes of conflict in the three basins. In addition, he argued that Colonial Legacy in the Euphrates-Tigris Rivers was not a cause for hindering cooperation between the riparians. But, the reality is that the role of colonial legacy is great in the Euphrates-Tigris basins especially through indirect means i.e. through galvanizing the boundary problems which exacerbate water crisis and makes the relations between the riparians more contentious. This study takes this factor into consideration as factor for hindering the cooperation efforts. Again, the cooperation efforts of the riparians are not mentioned in Kibaroglu's study which this study takes this into consideration.

Akanda et.al (2007) in their study "the Tigris-Euphrates River basin: Mediating a Path towards Regional Water Stability" explained barriers to cooperation in Tigris-Euphrates River under the section 'Barriers to cooperation'. He mentioned technical, legal and regional barriers to cooperation in the River basin. His study was not about the cooperation efforts and comparative analysis of the factors hindering it. This study discussed the cooperation efforts and factors influencing the Nile and Tigris-Euphrates Rivers with the aim of identifying the river basin which is approaching to cooperate over the resources utilization.

In a similar way, Elias (2009) has discussed barriers to cooperation in the Nile basin in his study "the Politics of the Nile Basin" under the section 'Factors hindering cooperation in the Nile Basin' in which he mentioned four factors as cause for hindering cooperation in the Nile basin. These are: the continuous reluctance of the downstream states, especially Egypt, to engage in an open negotiation process on the equitable distribution of the waters, the divergence of views among the riparians on how to use the water taking into account their contributions and demands, the biased treatment of international agencies and donor countries which adversely affected the bilateral as well as the multi-lateral relationships among the riparian states and lastly, civil war and political instability in most of the countries have often changed the political climate of each state, and made it extremely difficult to achieve long-term basin cooperation. His study was not a comparative analysis and did not include the cooperation efforts.

Swain and Jamali (2011) have discussed the challenges to cooperation in the Nile basin in their study “The China factor: New challenges for Nile Basin cooperation” in *Water as a Source of Development and Conflict, A Journal of peace Research and Action, Vol.15*. In their study, they explained the involvement of China as a factor for hindering cooperation in the Nile basin. Their work only concerns the Nile basin and was not a comparative study and their aim was to show the involvement of China in Upstream states as a challenge to bring cooperation in the basin. Thus, this study fills this gap by contributing to current literature of Hydropolitics by providing comprehensive information of the two River Basins and challenges to their cooperative efforts.

1.3. Objectives of the Study

1.3.1. General Objective

The general objective of the study is to examine the challenges to cooperative efforts between the riparians of the Nile and Euphrates-Tigris basins with the intention of identifying the basin better in terms cooperation attempts.

1.3.2. Specific Objectives

The specific objectives of the study are presented as follows

- ✓ To examine the factors hindering the cooperative efforts of the Nile and Euphrates-Tigris River basins
- ✓ To understand whether cooperative relationship exist or not between the riparians on water utilization
- ✓ To explain the current political developments and its implications on water cooperation and relationship between the riparian states.

1.4. Research Questions

Based on the above problems and international realities pertinent to shared river basins, it is possible to raise the following questions relevant to Nile and Euphrates-Tigris cases.

- What are the factors that impede the cooperative efforts of the Nile and Euphrates-Tigris river basins?
- What are the recent political developments and its implications on water cooperation and the relations between the riparian states of the two basins?
- Are there cooperative relationships between the riparians to use waters of the River basins?

1.5. Hypothesis

Different factors have been challenging the cooperative efforts of the Nile and Euphrates-Tigris basins. However, the prospect for cooperation in the Euphrates-Tigris basin is far remote than the cooperation in the Nile basin. Thus, the riparian states of the Nile basin might have a possibility to solve the problems of water utilization than the Euphrates-Tigris basins.

1.6. Methodology and Sources of Data

Methodology in a research is a way to systematically solve the research problem and it may be understood as a science of studying how research is done scientifically (Kothari, 2004). This study is a case study of a qualitative nature since that method is considered to be the most appropriate when analysing a contemporary event or process such as the water negotiations and cooperation efforts by the riparians concerned and factors hindering it. By using qualitative method it is possible to investigate issues such as why cooperation has occurred and how it has functioned. The study focuses on how actors and structures have affected the water negotiations and cooperation efforts between the riparians of the Nile and Euphrates-Tigris Rivers. Qualitative case study method is seen as appropriate when an analysis seeks to improve the understanding of the dynamics behind social and political processes in areas where contentious issues are discussed (Jagerskog, 2003).

In order to answer the research questions posed above, data is going to be gathered from sources such as books, journal articles, magazines, news paper reports, and internet sources. It is difficult to gather data from other sources such as interview because of the distance and riparian largeness in number. It is very difficult to visit and interview all officials of the riparian state

because is costly and time consuming. The obvious thing possible for the researcher is interviewing Ethiopian officials regarding the Nile issue and this can be resulted in bias and the information become unbalanced or one sided. Because of these problems the thesis is entirely based on desk top research. The thesis is also descriptive in that it provides a history of water negotiations in the two basins as well as a process of water cooperation efforts of the respective agreements, factors hindering the cooperation efforts and the riparian relations of the basins. Thus, data collected from the above sources (secondary) that are relevant to the cases are discussed both descriptively and analytically.

1.7. Case Selection

The cases selected for comparative analysis in this study are the Nile and Euphrates-Tigris River basin's cooperation challenges. The rationales behind the selection of these cases are the existence of wide array of similarities between the two river basins that makes comparative analysis reasonable and convincing. Firstly, the factors hindering the cooperation efforts in the two River basins are almost similar. Secondly, geographically, the two River basins are found almost in similar climatic conditions in which water scarcity is growing at an alarming rate. North East Africa and Middle East have a geographical proximity and a similar natural setting which tied them together. Thirdly, in both river basins there has been a great tension on water utilization among the riparians because of strained historical relations between them which resulted from external involvement. In addition, conflict and political instability is the present characteristics of the states of the two river basins. Fourthly, in the two river basins, the riparian states have been making a great effort to bring cooperation on water utilization, despite a slight difference in degree of their cooperation efforts. Thus, the creations of NBI in the Nile and Joint Technical Committee/JTC/ in the Euphrates-Tigris are an important step towards a journey to a cooperative environment. Fifthly, the nature of the state is almost similar in both river basins i.e. That is the riparian state of the two river basins has been characterized by conflict and the nature of their state was/is fragile due to colonial impact. Lastly, the cooperation efforts of the riparians of the two river basins are not reached the level expected because of the existence of many factors hindering it.

1.8. Significance of the Study

The Nile and Euphrates-Tigris River basins are international watercourses where there exists water scarcity, and the demand for water is increasing alarmingly. Thus, the study gives insight to how sustainable development can be used in reconciling competing interests of riparian states by providing the deep understanding of the two basins. The study may provide additional knowledge to the field of Hydropolitics through presenting better understanding of the two river basins and factors impeding their cooperation. Said in other words, the major contribution of this study is that it may be a source of additional information for student of International Relations in general and Hydropolitics in particular in gaining holistic understanding of the level of cooperation and factors hindering the cooperation efforts of the Nile and Euphrates-Tigris river basins and . Last but not least, it may also used as a reference for other researcher who would want to study in the area of hydro politics of the Nile and Euphrates-Tigris Rivers.

1.9. Scope of the study

This study is a case study and largely devoted to the discussions of the origins and the evolution, significance, and achievements of efforts of cooperation in the Nile and Euphrates-Tigris river basins and factors hindering the cooperation efforts. The study also incorporates analyses of the recent developments and prospects for cooperation in the two river basins. Since the comparative analysis of the Nile and Euphrates-Tigris basins is a very vast topic, this study attempts to compare the challenges to cooperation efforts or factors impeding it in the two basins.

1.10. Organization of the Study

The thesis consists of five chapters. The first chapter is the proposal of the study which includes background of the study, statement of the problem, research questions, and objectives of the study, case selection, methods and sources of data, scope, significance, hypothesis and organizations of the study. The second chapter is about literature review, conceptual and hydropolitical perspectives related to water cooperation and factors that promote or hinder cooperation and conflict. The conceptual and theoretical perspectives on the study, doctrines in hydro-politics are also discussed.

In the third chapter, the two River basins are physically and hydrologically described. An attempt of the two basins to use and manage cooperatively is also presented. It further outlines developments among the riparians, relations based on agreements and protocols related to the two cases and cooperation and conflictual interaction among the two basins.

Chapter four briefly explained the relations between the riparian states of two River basins. The relations between the riparian regarding water utilization and the recent developments in the River basins are stated. In the fifth chapter, the important part of the thesis which is the comparative analysis of factors hindering (challenges to cooperation) cooperation efforts of the Nile and Euphrates-Tigris is analyzed and the last section of fifth chapter is concluding remark based on the major findings.

CHAPTER TWO

2. LITERATURE REVIEW, CONCEPTUAL AND HYDROPOLITICAL PERSPECTIVES

This chapter discusses the literature review, conceptual and Hydropolitical perspectives on water conflict and cooperation. Owing to this, it defines the concept of conflict, cooperation, and hydro-hegemony and shared river basins. Perspectives of different scholars on hydro political issues, by focusing on the conflictive and cooperative perspectives are discussed. Factors which cause conflict on shared river basins are also elaborated briefly. After this, theoretical perspective on whether cooperation over shared rivers is possible or not is included. Lastly, some doctrines of international water law on shared river basins will also be discussed.

2.1. Conceptual and Theoretical Perspectives

2.1.1. Conceptual Definitions

Conflict and cooperation are important concepts in the literature of shared river basins. Thus, in order to know the state of conflict and cooperation in the Nile and Euphrates-Tigris River basins it is important to shed light on their meaning. These two concepts cannot be defined separately from each other as one cannot exist without the other. To this end, Conflict is “a concept that is independent of co-operation; not always opposite to it” (Craig 1993: 10). Goulden et.al (2008:9) defined conflict as “a negative interactions between societal groups at a sub-state scale”. It can also be defined as “a situation in which actors use conflict behavior against each other to attain incompatible goals and/or to express their hostility” (Yaekob, 2011:15). Similarly the term cooperation encompasses a range of positive interactions that can take many forms (Goulden, 2008: 18) and occur between a numbers of different actors at different scales. Keohane (2005:26) describes how “cooperation occurs when actors adjust their behaviour to the actual or anticipated preferences of others, through a process of policy coordination” and distinguishes it from harmony, where no adjustments are needed. He further said that “cooperation should not be viewed as the absence of conflict, but rather as a reaction to conflict or potential conflict”.

Generally, Cooperation is important because without agreement and coordination we cannot accomplish what we need to do. To organize important ideas and events, cooperation must be

obtained between groups of people or entities to insure the job is done right and well. Thus, cooperation is a voluntarily arrangement in which two or more entities engage in a mutually beneficial exchange instead of competing. It can happen where resources adequate for both parties exist or are created by their interaction (Sagsen, 2006:18).

The other concept which needs clarification is ‘hydro-hegemony’. It was a term first developed by Zeitoun and Warner (2006:6). Accordingly, they defined it as “hegemony at the river-basin level, achieved through water resource control strategies such as resource capture, integration and containment” (2006: 20).

Lastly, Trans boundary waters¹ are defined as freshwater resources shared by two or more States and comprising rivers, lakes and aquifers. The term ‘basin’ includes the hydrological basin i.e. groundwater resources, either with or without connection to surface water (UN, 2009: 14). Water resources are international if they are common to several States. Examples include rivers and lakes which border two or more countries, rivers which flow from one country into another and shared ground water resources. In all such cases, use by one country of the shared water resource affects the quantity or quality available to another country.

2.1.2. Theoretical Perspectives

2.1.2.1. Perspective on Hydro-political Issues

According to Schmeier (2010: 5-6) , the study of international watercourses falls between two main branches of thought; trans-boundary water leads to or at least can be a potential for conflict on one hand and paves the way for cooperation on the other hand. So, there are two main perspectives with regard to the study of shared river watercourses. Let us briefly discuss them one by one.

A. The Conflictive Potential of Shared Watercourses

Scholarly work on water conflicts gained importance following the end of the Cold War when realist conceptions of security began to give way to more encompassing understandings of

¹ In this study the word ‘transboundary waters’ and ‘shared river basins’ used interchangeably.

“Human Security” that included the environment and both renewable and non-renewable resources (Mason et al, 2008:9). Within the literature, water comprised one of the renewable resources conflicts might erupt over.

States differ in a number of ways in utilizing, managing, protecting water and water related resources and consequently have diverging interests based on their respective socio-economic development, political processes, and availabilities of water resources, of which the last point is of greater importance in shaping the behaviour of States and in commanding their national and international actions. Therefore, the greater importance of water for overall human activities combined with the fact that water transcends boundaries of nation states and therefore eludes the absolute sovereignty of the respective States leads to conflict (Homer- Dixon, 1994: 27). For example, Starr (1992:19) argue that the scarcity of water makes states vulnerable, especially if they depend on water that comes outside of their national border, and creates interdependencies that are perceived as threats. This then creates the behaviour and action of respective States in defence of the water resources. If States sharing international resources behave and act differently for the service of their respective national demand and interests over that particular water resources, conflict of interest will arise which in turn leads to collective action problems that eventually causes conflict which some writers called "water wars"(Schmeier, 2010 :18).

The above thesis focuses on the experiences of water related wars in some specific river basins, especially in the Middle East such as conflicts between Israel and its Arab neighbours over Jordan basin(1968), the Gulf war of 1992 (between Iraq and Kuwait) and others. These groups of scholars (Realists) derive the hypothesis from the connection between water and war in the Middle East and forecast similar events for the future. Besides the above experiences, water war arguments have also been derived from Euphrates -Tigris basin, often considered as one of the most conflictive basins and thus likely to experience war in the future (Wolf, 2007:12).

Another important conceptual frame work related to realist outlook is ‘hydro-hegemony’, a concept developed from realist theories of hegemony, regimes and power. Specifically, the concept of power is important in this regard. Since the issue of cooperation in the shared river basins is a political process, it is influenced by asymmetries in power/power relations between riparians. The concept of power has three dimensions/forms (Yaekob, 2011:11 & Cascao,

2008:28): coercive, Bargaining and ideational power. Coercive power refers to material power (military might, economic strength, modes of production, and riparian position). In other words, Daoudy (2008:14) defined this form of power as a structural power held by the riparian states. Bargaining power controls the rules of game by limiting choices regarding compliance and non-compliance. Said in other words, it is related to the legitimization in the eyes of other actors and not linked to material power. It is the capacity to influence at your advantage the rules and the agenda of the game. Ideational power may be analogues to Nye's (2004: 22) conception of 'soft' power and refers to "power over ideas", or the ability to impose particular ideas through knowledge structures. Generally, Power determines who the hegemon is. Thus, power is a central concept in the analysis of hydro-hegemony.

What comes after this is to differentiate 'dominance' and 'hegemon' because most of the time they considered synonymous. To this end, Zeitoun and Warner (2006:8) differentiate 'hegemony' and 'dominance', where the former is considered to be 'leadership buttressed by authority', and the latter 'leadership buttressed by coercion'. As conceived by Zeitoun and Warner, hegemony can take either positive or negative or something between the two. Positively, hydro-hegemony can lead to beneficial water sharing and river basin management; negatively, it can involve rules of the game, as well as forms of oppression, that are oriented towards resource capture (2006:10). Thus, for Zeitoun and Warner, Hydro-hegemony is hegemony active over water issues, hegemony on the waterfront.

Zeitoun and Warner state explicitly that "the framework of hydro-hegemony is applied to the Nile, Jordan and Tigris and Euphrates river basins, where it is found that current hydro-hegemonic configurations tend towards the dominative form...there is evidence in each case of power asymmetries influencing an inequitable outcome" (Yaekob, 2011:17). The comparative analysis of the challenges of cooperation in the Nile and Euphrates-Tigris River basins is presented in the fifth chapter in order to identify the hegemony and how it inhibits the cooperative efforts of the two river basins.

What Causes Conflict over Shared River Basins?

As already discussed, a trans-boundary river is a river that crosses political boundaries such as international borders. There are 263 trans-boundary rivers around the world, some of which are shared by as many as 17 countries (Wolf et al, 2005:9). Growing populations, increasing industrialization and pollution, and changing resource and energy needs bring into focus the precarious situation in which riparians find themselves. So long as there is no cooperation over the shared resources, each state might use the water in the river to its best advantage before it crosses international borders and becomes unreachable. The actions of one state, for instance, building a dam and diverting part of the river's flow or polluting the water can seriously affect the water security of the other riparians. Because of this, trans-boundary rivers are potential loci for conflict over the use of the shared rivers. In this regard, Zawahri (2009:10) stated that "conflict over shared rivers arises when states undertake unilateral development of the shared river basins to accommodate their own needs and without regard for the impact on their riparian neighbor". It could be better argued that asymmetric power distribution among the riparians, unilateral development of the shared river(s), other issue linkages to water and thorny political histories between the riparians affect the relationship among them which causes cooperative efforts for the uses and distribution of the rivers resources harder to realize. A riparian with first access to the river may, for instance, be reluctant to cut back its use of the river in order to have a room for the needs of its downstream fellows unless there are some benefits it would derive from such an arrangement. Such situations generate instability and insecurity among all riparians because they cannot overcome the zero-sum mentality with regards to the use of the river and deteriorate already complex political relationships.

B. The Prevalence of Cooperation over Shared Watercourses

Despite the prominence of "water-war²-thesis", some research reveal that most of the events in international basins have been cooperative in nature while only few cases were conflictive in nature (MacQuarrie, 2004:13). Although it is difficult to argue that shared water courses do not lead to conflict, the prevalence of cooperation over the same overweighs conflict.

² It is a term first coined by environmentalists to identify a water conflict from other conflicts and defined as a type of conflict due to an acute shortage of water for drinking and irrigation.

Political, economic, ideological and socio-cultural factors matter in bringing conflict or cooperation on international water courses. Therefore, various domestic and international situations of the riparian states of a given river basin affect positively or negatively the relations over the basin countries, other things remain the same.

Van der zag and Vaz (2003:23) pointed out that even though tensions have always existed over trans-boundary waters, they have never turned into conflict, rather cooperation. The case of Nile River basin, according to Metawie (2004:28), has demonstrated that Nile riparians are deeply committed to cooperation despite ongoing water resources problems in the River basin. And even in the regions such as Middle East, where water wars have been forecasted and water conflicts are believed to be severe no incidents could so far be observed and all disputes having occurred so far have been either minor skirmishes and /or remained on a sub-national level mainly due to the fact that incentives for cooperation still outweigh the benefits of violence (ibid).

Besides the above research findings, different scholars of Hydropolitics have also derived a variety of theoretical arguments in favour of the cooperative potential of the water. It is found that states are more likely to choose cooperation over conflict from a strategic point of view (Schmeier, 2010:9). Because the costs related to water conflict are found very high while benefits are very limited. In addition, riparian states often share common interests and are politically, economically and culturally interdependent so that going to war over water would harm their national interests in different issue areas other than water.

Moreover, it is argued that water itself creates interdependence among states sharing trans-boundary water courses which helps the concerned states to create joint institutions for the management of shared water resource which in turn triggers further cooperation. Once cooperative water regimes are established, they turn out to be resilient over time, even between hostile riparians and even as a conflict is waged over water. Therefore, according to those scholars, the emergence of international water treaties and River Basin Organizations (RBOs) helps states sharing trans-boundary waters to institutionalize cooperation for the utilization and management of waters. In other words, as per their argument, multilateral and bilateral

agreements between states over water may be effective in creating binding legal regimes to manage trans-boundary waters and countries do support cooperation through different efforts.

Is Cooperation possible between States on Shared River Basins?

Shared rivers can be a source of cooperation or a cause of conflict among riparians. Even though such disputes do not often cause armed violence, conflicts over shared rivers can still cause significant damage to all riparians and hurt already fragile political relationships. Examples of riparians cooperatively managing their shared rivers show that cooperation is a realistic option, but how can states move from a state of conflict to one of cooperation? Despite the breadth of literature dealing with conflict and cooperation among riparian states, and the previous explanation of the nuances of these two types of riparian interaction, it is still unclear what pushes states towards cooperation or drives them to fight over the river.

Shared rivers create tensions between those that share them because the resource in question is frequently scarce; the power dynamic is often asymmetric and there is no viable alternative to the water the river provides. In such situations, states are unlikely to avoid from the conflict and let the other riparians do as they wish because this could have immensely detrimental effects for their population and economy. If the river itself, its resources, and uses are important enough for states to fight over, though, they are likely also important enough to make states willing to compromise if they see that by compromising they would gain more collectively than they would if they continued on their unilateral path.

Brochmann and Hensel (2009: 23) explain that “in order for states to cooperate over an issue, there needs to be an underlying difference of interest, and the issue must be considered important enough to be worth pursuing one’s own interest rather than simply ceding it to the adversary”.

In water-scarce, arid, or semi-arid regions, shared aquifers often provide the main source of water for consumption, agricultural production, and industry. The more dependent the riparians are on the river, the more their economy and society is held hostage by the actions of their co-riparians, making cooperation that allows for the regulation of the actions of each riparian in relation to the river, even if it requires concessions, the favorable option. In this regard, Tir and Ackerman explained the following:

Cooperation between self-interested parties can emerge even under the condition of anarchy, especially when there is an expectation of long-term benefits. To help facilitate cooperation, states create international institutions- such as river treaties- that spell out the rewards and obligations of the signatories, deal with technical details, and perhaps offer dispute-resolving mechanisms. The treaties can consequently change the states' preferences toward cooperation by providing predictability, decreasing uncertainty and costs of cooperation, and increasing the costs of non-cooperation (2009: 47).

We can easily understand from Tir and Ackerman's explanation that treaties are the main instrument in facilitating cooperation between the riparians through changing states preferences. In addition, scholars like Curtin (2005:23-25); Oloo (2007:20-22); Sinnona (2012:31) & Gerlak (2012:18) stated the positive role of civil society organizations (CSO)/NGO in promoting public participation in enhancing the cooperative efforts of shared river basins. Accordingly, civil society plays an important role since, for instance, NGOs are a respected force, participate often in formal meetings, and are actively involved in concrete water management. Particularly, Curtin (2005:23) explained the role of NGO in water sector as mobilizing communities to improve their own water supply and management by strengthening local capacities, providing technical training and experts and promoting local democracy and sustainable livelihoods. In other words, NGOs aim at empowering local communities rather than the implementation of large scale projects/works. Specifically, in shared River basins, the NGOs are active in conflict resolution which can extend in addressing cross-border and inter-ethnic tensions, for example as in the case of Green Cross International's 'water for peace' project (Curtin, 2005: 24).

A lack of public participation may result in limited support for any agreement reached or may challenge implementation (Gerlak, 2012:23). In other words, for Sinnona (2012:13) inadequate public participation, or even worse, the exclusion of people in decisions that affect their welfare, often lead to a violation of basic human rights and possibly to public protests and obstruction to the implementation of decisions. When there is a direct involvement of the people in the decision making process which affect their life we can say there is a public participation. The NGOs/CSO participation in the Nile and Euphrates-Tigris is comparatively examined under the fifth chapter.

2.2. Doctrines of International Water law on Shared River Basins

2.2.1. International Water Law

Defining what we mean by international water law is central to investigate and analyze any issue pertinent to international water law. That is why it is logical to proceed by shading a light on the meaning itself.

International water law (also known as international watercourse law or international law of water resources) is a term used to identify those legal rules that regulate the use of water resources shared by two or more countries. The primary role of international water law is to determine a State's entitlement to the benefits of the watercourse (substantive rules) and to establish certain requirements for states' behavior while developing the resource (procedural rules) (Laurence, 2009: 23). Thus, an international water law is an agreement between two or more nations that regulates activities on the shared river basins, seas, surface and ground water.

There is no binding international law of water utilization though there are several attempts and search for an international water law that may guide the fair and equitable sharing of shared river basins. By the latter part of the twentieth century the international convention on the Non-Navigational Uses of International water courses (UN) brought in a substantial body of international law that included principles on sharing benefits, as well as waters (Sinnona, 2012:20). To date the Convention has not been ratified by any Nile and Euphrates-Tigris riparian state.

Given rapid growth in population number and scarcity of water, allocating and managing water resources has become unavoidable necessity. In the bid to realize such allocation, a number of legal doctrines have evolved internationally for surface water and to a lesser extent for ground water use rights. Most scholars of hydro-politics (for example, Yacob, 2007, and Kebrom, 2011) apply four or five doctrines of equal importance regarding defining the water rights of riparian States. With respect to this stance Yacob (2005:32 and 2007: 19) mentioned five water law doctrines that have emerged in an effort of searching for reasonable criteria for defining the water rights of riparian nations. Here are the most common and widely mentioned doctrines on shared river basin include: (1) Absolute Territorial Sovereignty (2) Absolute Territorial Integrity

(3) Doctrine of prior appropriation or historical use right (4) the ‘sic utere’ doctrine (5) Community of interest in the shared rivers.

Within the context of the Nile and Euphrates-Tigris river basins, three of them become important depending mainly on each riparian state’s position with relation to the water sources and in terms of their interest. These are: The doctrines of absolute territorial sovereignty (the Harmon Doctrine), Absolute territorial integrity and the doctrines of prior appropriation or historical use right claims. Here in under the brief explanation of the common doctrines of Hydropolitics explained by scholars of Hydropolitics.

I. Absolute Territorial Sovereignty

This principle states that a State is fully free to use the water flowing through its territory as it deems necessary without the need to take in to account restrictions or prohibitions on such use (Kebrom, 2011:36). This doctrine is also called Harmon Doctrine, named after the US Attorney General Harmon, who for the first time applied to a dispute between the United States and Mexico in 1895 over the use of Rio Grande River. According to this doctrine, an upstream state can freely divert or use a river within its boundaries. Thus, upstream States maintain the right to use unlimited quantities of the water resources that originate in their territories. Within this context, Turkey claims the right to the Harmon Doctrine, or doctrines of absolute territorial sovereignty, over use of the Euphrates and Tigris river Basin. Among the Nile’s basin nations, Rwanda and Ethiopia have most often supported this doctrine, stating that sovereign states have the unconditional right to waters originating or flowing within their borders.

II. Absolute Territorial Integrity

On the other hand, this doctrine advocates the right of downstream State whereby they may have a veto power on how the upstream state uses international watercourses (Kebrom, 2011:34). This is a principle that most downstream states rely in asserting their right to use International Water Courses and make sure that, upper riparian states can do nothing that affects the quantity and quality of water that flows down the water courses. This doctrine was advanced by Egypt and Sudan on the Nile River basin (Swain, 2008: 24). Iraq and Syria also uses this doctrine to state its claims to Euphrates and Tigris river water, particularly in reference to its historical water rights.

The doctrine of absolute territorial integrity is as primitive as the doctrine of absolute territorial sovereignty as it advocates for veto power of a downstream state over development decisions of upstream states. Therefore, reliance on either of the above doctrines will hinder cooperative and sustainable management of an international river as it gives the right to decide on development programs and manners of utilization over such rivers solely by one riparian.

III. Doctrine of prior Appropriation or Historical Use Right

According to the prior use doctrine, a nation enjoys the right to waters that have been currently or historically used by that nation. This doctrine favors neither the upstream nor the downstream state, but rather the state that puts the water to use first, thereby protecting those uses which existed prior in time. There were instances in which we can observe riparian claims of this doctrine both in the Nile and Euphrates-Tigris river basins. For example, in the case of Nile Egypt strictly argue that it has historical or 'prior use' rights in using the Nile River starting from the period of antiquity (Elias, 2009:39). In the case of Euphrates-Tigris River, Iraq and Syria claims acquired rights dating back to ancient period. Iraqi authorities claim that Iraq has acquired rights relating to its ancestral irrigations on the Euphrates and Tigris rivers (Sagsen, 2006:48). Syrian authorities also base their arguments on the principle of prior appropriation asserting that Syria has possessed acquired rights dating from antique periods over the rivers that pass thorough Syrian territory. However, this doctrine may be inequitable where one state lags behind another in the economic or technical ability to develop its river use. Further, in rewarding those who first put water to use, the doctrine does not take into account either thorough planning or environmental uses of the river.

IV. The 'Sic Utere' Doctrine

The 'sic utere' doctrine has its roots in the traditional customary law. This customary law principle state that "one state may engage in some activity to the extent that it does not bring harm to another state. The river use that causes substantial harm to another riparian is accepted as unlawful where the harm outweighs the equitable reasons in favor of that use"(Rahaman, 2009: 27). The 'sic utere' doctrine is reflected in international water law theory through the doctrines of "restricted territorial sovereignty" and "restricted territorial integrity" which take the

moderate position between the two extremes (ibid). These two doctrines assume that every state is free to use its territorial water provided that it in no way prejudices the rights and uses of other riparian states.

V. The Community of Interest

According to this doctrine, within a water basin each state has no a right of action against any other basin state so that no state may affect the resource without the cooperation and permission of its neighbors. Thus, this principle advocates for the collective rights to river waters and international drainage basins by the riparian states. It is a concept derived from the hydrological unity of a river basin, which renders the position of sovereignty less important in relation to international watercourses (Kebrom, 2011: 38). Within this context, it is important to quote the decision given by Permanent Court of International Justice (PCIJ), the then world court, as far back as 1920, regarding the river Oder case as follows:

“The community of interest in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian states in the use of the whole course of the river and the exclusion of any preferential privilege of any one riparian state in relation to others.” (PCIJ, 1929 as cited in Kebrom, 2011: 9).

The particulars of the case bound the application of the principle to the navigational uses of international water courses. However many are of the view that it has been a pioneer of the principle of equitable utilization of international water courses, which went on to become one of the major principles under the 1997 UN Water Course Convention (Kebrom, 2011:52). While the current attempt at codification effort is directed towards facilitating this aim, it is not yet a politically acceptable or a favored position.

CHAPTER THREE

3. PHYSICAL AND HYDROLOGICAL DESCRIPTION, LEGAL AGREEMENTS AND ATTEMPTS AT COOPERATION OVER THE NILE AND EUPHRATES-TIGRIS RIVER BASINS BY THE RIPARIAN STATES.

3.1. The Nile River Basin

3.1.1. The Physical and Hydrological Description

The Nile basin is the largest international river system in the world, which is 6,825 km (or about 4,266 miles) in terms of length, drainage area and number of riparian countries and the quantity of water it carries in its watercourse (Elias, 2009: 35 & Swain, 2008:29). With an area of 3.1 million km², the Nile Basin covers roughly 10 percent of the African continent, and is home to 18 percent of the African population (Yaekob, 2011:27).

The Nile River has two main tributaries that originate from two physically and hydrologically different sources: The Blue Nile (or Abbay (in Amharic), originates from Lake Tana in the highlands of Ethiopia, and the White Nile from Lake Victoria in the Equatorial Lakes Region of Eastern and Central Africa. These two main tributaries joined in Khartoum, Sudan to form the main Nile which continues on to Egypt. The Ethiopian highlands provide 86% of the Nile flow; the Blue Nile contributes 59%, the Baro-Akobo (Sobat) 14% and the Tekezze (Atbara) 13% (Swain, 2008:24). On the other hand, the contribution from the Equatorial Lakes to the Nile River is only 14%. Despite the fact that the upper riparian states contribute the lion share to the Nile River, the downstream states of Egypt and Sudan are the utilizers. (See table 3.1 below).

The three main actors in the Eastern Nile Basins are Ethiopia, Sudan and Egypt. The water use existing in the basin currently is an unbalanced one favoring mainly Egypt and to some extent Sudan. This inequitable use together with pressure from population growth, climate change and environmental degradation are presenting a formidable challenge to the sustainable use of the river Nile.

Table 3.1: Summary of the Flow Contributions of the Nile Riparian Countries to the Nile River, as measured at Aswan,

Nile Riparian Country	Mean Annual Flow Contribution (as measured at Aswan) Bill. Cubic Meters (BCM)	% of Total
Egypt ¹	0	0
Sudan ¹	0	0
South Sudan ²	Negligible	0
Ethiopia	72.24	86
Eritrea ³	Negligible	0
Upper white Nile riparian countries ⁴	11.76	14
Total	84	100

Sources: Elias, 2009 (with some modification)

¹Egypt and Sudan has no perennial rivers that drain into the Nile.

² South Sudan's few rivers flow into the Sudd wetlands

³Eritrea contributes to the Atbara River, but no reliable data is available in quantitative terms.

⁴Due to lack of data and the complexity of the hydrology of the Sudd and the Equatorial Lakes, the flow contributions of each country are not estimated.

The Nile, due to its length and climatic variety, is one of the most complex river systems in the world. Its peculiarity lies in the fact that the total of the river's water is generated in an area that covers only the 20% of the basin, while for half of its course flows in countries with no effective rainfalls and high evaporation rates (Sinnona, 2012:14). Whilst the White Nile is not subjected to strong variation, because it is supplied by perpetual snow from Ruwenzori, the Blue Nile is subjected to strong seasonal variations. The flow variations of the Ethiopian tributaries differ between the wet and dry seasons. During the rainy season, the water coming from Ethiopia

constitutes up to 90% of the Nile flow (Swain, 2008:12). The annual runoff of the Nile River reaching Egypt also varies considerably as per the intensity of the rainfall during the wet season. In terms of its riparians, the Nile River is shared by 11 countries in the North Eastern part of Africa which include Rwanda, Burundi, Zaire, Tanzania, Kenya, Uganda, Eritrea, Ethiopia, Sudan, South Sudan and Egypt. South Sudan became the member of the Nile basin in 2011 after official declaration of independence on July 9, 2011. (See map 3.1 below).

Map 3.1: Shows Nile River Basin and Riparian Countries



Source: Think Africa Press, 2012, at <http://allafrica.com/stories>

The countries surrounding the Nile basin (people living within the 11 basin countries) have an estimated population of 300 million people and 160 million people depend on the Nile River for their livelihood currently (Elias, 2009:31). This figure is expected to double within the next 25 years. The rise in population number increases the demand for water for electric generation, agriculture and household uses putting the water resource under an even more stress. Environmental degradation, such as soil erosion and water pollution, are growing problems throughout the region, affecting agricultural productivity and exposing the population to water

born diseases. At the face of such threat the isolated and uncoordinated national development plans in the basin are presenting a challenge for the efficient management of the river Nile.

3.1.2. Legal Agreements on Nile water Utilization

As far as Nile River is concerned there is no fixed, concrete and comprehensive agreement on the Nile basins among the riparian or water share countries despite the fact that the effort is being made by Nile Basin Initiative. (Girma, 1997) clearly elaborated the issue as follows:

To date there is no comprehensive agreement on the Nile binding all the water course states and no measure of integrated planning carried out to develop its basin. The few agreements that exist so far are entered between some of the water course states with the aim of securing the interests of one riparian state- (Egypt) or to some extent (Sudan) to the total exclusion of other riparian state (Girma 1997 as cited in Chesire, 2010: 34).

As one simply guess or deduce from the above statement, lack of any agreement binding the countries along the Nile basin for an optimal and equitable allocation of water resources is one such a case. Most of the agreements on the Nile Basin water utilization were made either between former colonial States or bilateral agreement between Sudan and Egypt. Most of the agreements signed on the consumptive usage of the Nile water have been Colonial Agreements and these agreements were inspired by Great Britain which managed to secure the water of the Nile for Egypt and Sudan making Egypt the ultimate beneficiary. Thus, the current tension in the Nile basin is the result of the historical developments of the colonial period. The British had always moved to protect its (Egypt's) interest on the Nile River to protect its colonial economic interests (Elias, 2009:26). This is witnessed in the Protocol signed between Italy and the Great Britain in 1891, the treaty regarding the frontiers between Anglo- Egyptian Sudan, Ethiopia and British Eritrea of 1902 between Ethiopia and Great Britain, Great Britain-Congo treaty to redefine their respective spheres of influence in Eastern and Central Africa of 1906, the tripartite treaty of 1906 between Britain, France and Italy, and the Nile water agreement of 1929 (Egypt and Great Britain) the latter representing Sudan and many others. Another important agreement in the post independent period is the 1959 agreement between Egypt and Sudan for the full utilization of the Nile water. One important thing to note in this regard is that most of these treaties were not essentially agreements over the waters of the Nile; they were rather

predominantly border treaties, either among colonial powers or between colonial powers and Egypt or Ethiopia.

In general, this section highlights documented treaties and agreements concerning the Nile River in a chronological order to provide an overview of the international aspects, both past and present.

3.1.2.1. The Anglo-Italian Protocol of 1891

This agreement was signed on 15 April 1891, between Britain, representing Egypt and the Sudan, and Italy, on behalf of Eritrea and defines the colonial territorial claims of Great Britain and Italy in East Africa. Eventhough the aim of the treaty was primarily colonial boundary delimitation between Great Britain and Italy in the Sudan and Eritrea, the issue of the Nile water was referred to under article III as incidental issue which stated as follows: "The Italian Government engages not to construct on the Atbara, in view of irrigation, any work which might sensibly modify its flow into the Nile" (Owiro, 2004:22).

As we can observe from the above statement, this agreement prevented the construction of any irrigation projects on the Atbara River by Italian government and did not include or make reference to the upper riparian states, particularly Ethiopia, where the substantial share of the water comes from. What makes this treaty senseless and irrelevant is the fact that the Nile River did not flow in the territory colonized by Italy, which was the basis for its claim to its water (Muhammed, 2004: 29). Nevertheless, we can easily understand that from the obligation imposed on Italy, it is implicit that the aim of the British government was to preserve the interest of its colonial subject, Egypt.

3.1.2.2. The 1902 Agreement between Britain and Ethiopia

This protocol was signed between Britain and Ethiopia, on May 15, 1902 at Addis Ababa the former acting for the Sudan to determine the boundary between Ethiopia and the Sudan. What makes the 1891 and 1902 agreement similar was that both of them primarily provided as a boundary demarcation and the issue of the Nile water was presented under article III as a supplementary issue in both cases. Article III of the treaty reads as follows:

"His Majesty the Emperor Menelik II, King of Kings of Ethiopia, engages himself towards the Government of His Britannic Majesty not to construct or allow to be constructed any work on the Blue Nile, Lake Tana, or the Sobat, which would arrest the flow of their waters except in agreement with His Britannic Majesty's Government and the Government of Sudan" (as cited in Yacob, 2007: 97).

It is easily understandable from the above paragraph that the then emperor of Ethiopia, Menelik II, entered into obligation not to construct or allow to be constructed any hydraulic works on any of the tributaries of the Nile River. Like the 1891 Agreement, it repeated the same thing, in the sense that it prevented the Ethiopian government from engaging in development activities on the water of the Nile, in order to preserve the interests of the lower riparian states. However, this was the only agreement between Ethiopia and the downstream riparian countries that had addressed the Nile issue (Swain, 2008: 20). Even if Egypt and Sudan continue to recognize the validity of 1902 Anglo-Ethiopian treaty, Ethiopia has made it clear, time and again, that the treaty is outdated and does not prevent it from using its share of the waters of the Nile because it is a colonially imposed treaty which did not exist anymore.

3.1.2.3. The 1906 Agreement Between Britain and Congo

This was an agreement signed between Great Britain (acting on behalf of Sudan) and the independent state of Congo on 9 May, 1906 with an aim of re-defining their respective spheres of influence in Eastern and Central Africa. Article III of the treaty reads as follows:

“The Government of the Independent State of Congo undertakes not to construct or allow to be constructed any work over or near the Semliki or Isango Rivers, which would diminish the volume of water entering Lake Albert, except in agreement with the Sudanese Government” (Mohammed, 2004: 49).

This protocol prohibited any construction that would diminish the flow of the White Nile water reaching Sudan and it is implicit that the aim of the British government was to safeguard the interest of its colonial subject, Sudan.

3.1.2.4. The 1906 Tripartite Treaty

This was an agreement signed between Britain, France and Italy in London on 13 December 1906, and dealt with the use of the Nile water in Ethiopia's sub-basin. Article IV (a) of the treaty provided that:

“In order to preserve the integrity of Ethiopia and provide further that the parties would safeguard the interests of the United Kingdom and Egypt in the Nile basin, especially as regards the regulation of the water of that river and its tributaries without prejudice to Italian interests" (Owiro, 2004: 7).

The first line of the above paragraph started with phrase “in order to preserve the integrity of Ethiopia...” It is difficult to imagine how they could claim to protect Ethiopia's interest, without inviting Ethiopia to take part in the agreement process, or without consulting Ethiopia. Again the hidden aim of this treaty was that it protected the interests of colonial powers. Emperor Menelik II of Ethiopia immediately notified the contracting parties that he rejected the agreement and it is signed against integrity and interests of Ethiopia.

3.1.2.5. The 1925 Anglo-Italian Agreement

This was an exchange of Notes between Italy and the United Kingdom signed on 20 December 1925 in Rome by which Italy recognized the prior hydraulic rights of Egypt and the Sudan in the headwaters of the Blue Nile and White Nile Rivers and their tributaries and engaged not to construct on the head waters any work which might sensibly modify their flow into the main river (Kebrom, 2011:39). Like the previous treaty Ethiopia voiced its objection against this treaty.

3.1.2.6. The 1929 Anglo-Egyptian Agreement

The Exchange of Notes signed between Egypt and Great Britain, the latter representing Sudan regarding the Nile water sharing and utilization. Accordingly, Egypt and Sudan allowed to utilize 48 and 4 billion cubic meters respectively and the flow of the Nile during January 20 to July 15 (dry season) would be reserved for Egypt, Egypt kept the right to monitor the Nile flow in the upstream countries, Egypt assumed the right to undertake Nile river related projects without the

consent of upper riparian states, and assumed the right to veto any construction projects that would affect her interests adversely (Swain, 2008: 26). On the other hand, The Agreement mainly aimed at securing the Nile water for Egypt by limiting the rights of the Sudan and rejecting those of the other riparian states, particularly those of East African states. In other words, the agreement somehow recognized the right of the Sudan to utilize the water but its exercise is dependent on whether or not its uses preserved Egypt's "historic and natural rights". However, this agreement did not include Ethiopia, which supplies most of the water to the river system. For this reason, East African states in general and Ethiopia in particular did not recognize the validity of the agreement as, nor did they ever accept Egypt's claim to acquired or historic rights. Since the agreement was signed between Egypt and Britain, it could not have a binding effect on third party without their consent. With respect to this, article 34 of the Vienna Convention on the law of treaties also states as a general rule that "a treaty does not create either obligations or rights for a third state without its consent"(Vienna Convention on the law of treaties, 1969). This and other factors made useless and obsolete the 1929 agreement signed between Egypt and Britain.

3.1.2.7. The 1959 Nile Waters Agreement between Egypt and Sudan

This was a treaty signed between independent Sudan and Egypt for the "full utilization of Nile waters" with a total exclusion of other riparian states, particularly Ethiopia which contributes a lion share to the Nile River. It was based on the revision of the 1929 Agreement. This is to mean that Egypt and Sudan renegotiated the allocation of Nile River waters in response to Sudanese dissatisfaction with the 1929 water allocation between them. Accordingly, Sudan's allocation was raised from 4 BCM in the 1929 agreement to 18.5 BCM/year of the 84 BCM average annual flow of the river measured at Aswan High Dam and Egypt allowed the right to use 55.5 BCM and the remaining 10 BCM/year was estimated to be lost through evaporation (Elias, 2009:41 & Mason, 2004:53).

The Objective of the 1959 agreement was to gain full control and utilization of the annual Nile flow between Egypt and Sudan and created the legal foundation for allocating water between the two countries before building the Aswan High Dam (Knobelsdorf, 2011:23). In addition, the stipulated purpose indicates an interest in solidifying future claims to the waters "in order to

regulate their benefits and utilize the Nile waters in a manner which secures the present and future requirements of the two countries (ibid). Thus, it is the legacy of the colonial era and confirmed the British approach to the water of the Nile. Moreover, both the countries agreed not to negotiate with any third party over Nile water before they jointly developed a common position. This has proved to be one of the obstacles that come to the scene whenever there is negotiation for cooperation among riparian states siding Egypt and Sudan on one side as opposed to the rest of the riparian states. What we can observe from the position of these two riparian was (is) that the two states acted as if the Nile starts in the Sudan and ends in Egypt and consider it as a God's gift for themselves only, contrary to common sense, no room for the other riparian states. Therefore, Ethiopia in particular has expressed its dissatisfaction with the 1959 water agreements and had rejected its validity and recognized the right to use its waters within its own territories.

As briefly explained above, all the Nile treaties discussed could be taken as a colonially imposed legal regime and they are generally invalid, at least to the extent that they claim to bind post-colonial third party upstream states. In addition, the international laws of succession of colonial treaties following the independence of a state indicate that an agreement of resource allocation is not a territorial or a localized treaty that must remain binding following the birth of a newly independent state.

3.1.3. Multilateral/Regional Cooperation on Nile Water Utilization

Since the 19th century the relations among the Nile Basin countries were tied only by agreements between two or three countries mainly focusing on the protection of the amounts of water reaching the downstream countries stressing that no measures to be taken by upstream countries that may affect the amount of water reaching the downstream countries. Thus, building a cooperative environment in the Nile basin is not an easy task because of scarcity of the resource and due to the prevalence of mistrust among the riparian states. This is very much reflected in the many activities undertaken in order to come up with a basin wide cooperative framework. Despite this fact, during the early years of decolonization period, there were numerous attempts made by the downstream countries particularly Egypt in line with protecting their own interest of maintaining the status quo. In other words, cooperation efforts in the Nile basin after 1959

agreement were motivated by Egyptian security concerns and self-interest in securing free Nile flow. It has to be noted that efforts at cooperation on the Nile River Basin did not start with the current negotiations and therefore, the first attempt for basin-wide cooperation came in the 1960s. The purpose of this section is to highlight the multilateral cooperation efforts made by the Nile riparian states starting from earlier to present. Within this context, the most widely known basin wide multilateral cooperative efforts are the Hydro-Met, the Undugu, TECCONILE and the Nile Basin Initiative.

3.1.3.1. Hydro-Met (1967-1993)

The Hydro-Meteorological Survey of Lakes Victoria, Kyoga, and Albert (shortly Hydro-Met), was launched by Egypt, Kenya, Sudan, Tanzania and Uganda in 1967 with the support of the United Nations Development Program (UNDP) and the World Meteorological Organization with the objective to collect and analyze hydrological and meteorological data in the great lake catchments area, with a specific purpose of regulating the water level of Lake Victoria as well as the water flow of the Nile (Kebrom, 2011:32). Rwanda and Burundi joined the initiative later and Ethiopia participated as an observing member as of 1971. Since the potential control and regulation of the Nile has a direct bearing on the economic development of all the riparian countries, it was evident to these countries that a high priority must be placed on the collection of hydrometeorological data and the investigation of the meteorology, hydrology and hydraulics of the Upper Nile Basin. Despite the fact that Hydro-met was successful in gathering some useful meteorological data, it is criticized for not bringing about any substantive impact on harmonizing the upstream-downstream polarization of interests (Yacob, 2007: 43). Finally, this project continued to work for twenty-five years and completed in 1993.

3.1.3.2. Undugu (1983-1993)

“Undugu”, which means ‘brotherhood’ in Swahili, was established in 1983 during a meeting in Khartoum and was a second effort at collaboration in the Nile basin. Again, it was initiated by Egypt to which Egypt, Sudan, Uganda, Congo Democratic Republic and Central African Republic (the latter was a non-riparian country) were founding members while Ethiopia, Kenya and Tanzania chose observer status. The Undugu initiative was formed with the objectives of

achieving a regional cooperation in the areas of environment, infrastructure, trade and culture (Yacob, 2007:58). Since initiated and dominated by Egypt, attempted without success, to promote socio-cultural and economic cooperation among the Nile basin riparian because of lack of genuine commitment on the part of Egypt. For this reason it failed to achieve its objectives and disbanded just like its predecessor, Hydromet and replaced by Technical Cooperation Committee for the Promotion of the Development and Environment Protection of the Nile (here in after, TECCONILE).

3.1.3.3. TECCONILE (1993-1999)

Since the Hydromet Survey was completed in 1992, the same year the water resource ministers from Egypt, the Sudan, Rwanda, Tanzania, Uganda and Democratic Republic of Congo created a new organization called TECCONILE with a signing of an agreement at Kampala, Uganda with funding support from the Canadian International Development Agency (CIDA). The remaining four riparian states of Burundi, Eritrea, Ethiopia and Kenya participated as observers. The TECCONILE initiative aimed to reach a comprehensive legal and institutional frame work consisting of the short and long term goals. In the short term, it was aimed at achieving development of infrastructure, capacity building and techniques for management of water resources and formulation of national master plans and their integration into a Nile Basin Action Plan. The long-term objectives aimed at the development of the Nile Basin in an integrated and sustainable manner through basin-wide cooperation and the determination of equitable sharing of its waters. Within this context, TECCONILE has been engaged in a number of essential activities directed towards accomplishment of its short and long term objectives. Despite the commitments made, not all the planned projects were implemented due to lack of funding, delayed funding or insufficient funding from what was promised by the donors (Kang'ethe, 2012:23). The only important accomplishment of the TECCONILE, as some suggest is, its modest contribution towards the Nile Basin Action Plan activities (Dereje, 2010: 12).

Generally, it is possible to argue that the period from 1967 to 1999 was a period of “limited cooperation” in the history of the Nile basin because attempts at multilateral cooperation during this period was ultimately failed because countries such as Ethiopia and Kenya only had an observer status. The observer status of Ethiopia and Kenya was partly due to their perception that

the fora were dominated by Egypt, and partly because of the lack of importance given to the issue (Mason, 2004: 34). For this reason, TECCONILE was replaced by Nile Basin Initiative in 1999 and since then multilateral cooperation has changed dramatically because all of the Nile countries, including Ethiopia, are active members.

3.1.3.4. Nile Basin Initiative (since 1999)

The Nile Basin Initiative (NBI), launched in 1999, is headquartered in Entebbe, Uganda, and is mandated to develop a framework for regional cooperation for equitable distribution, integrated water resource planning, and reduction of potential conflict among the riparian nations of the Nile River. For the first time in history, all Nile basin countries have expressed a serious concern about the need for a joint discourse and all the riparian countries came together in formalized talks. The self proclaimed mission of the NBI is “to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources” (NBI website as cited in Yaekob, 2011:24).

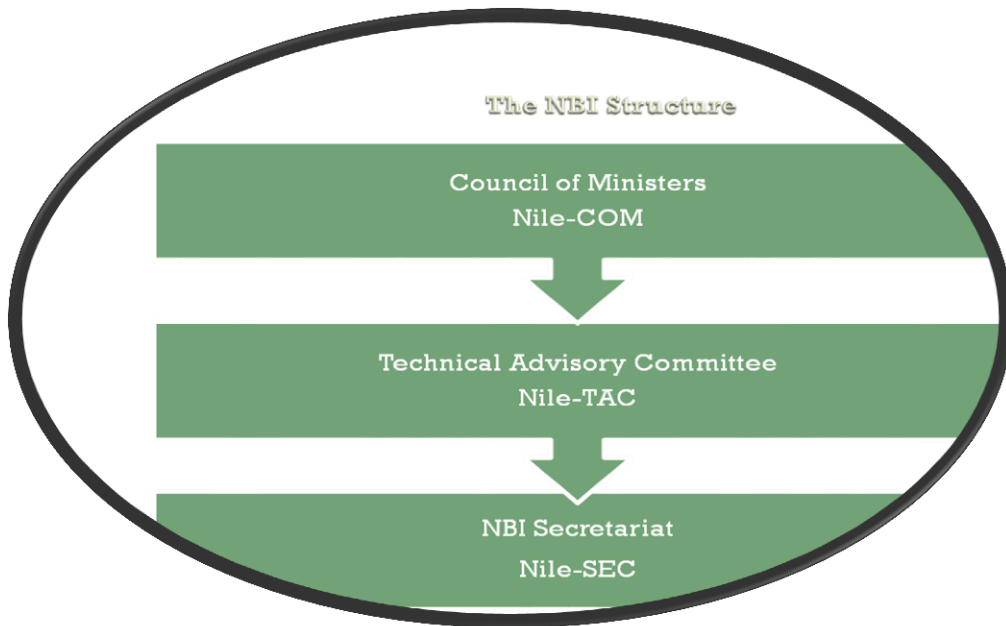
What makes NBI unique is that it upholds the principle of ‘equitable utilization’ and ‘no appreciable harm’. This is an important feature which the previous cooperative attempts lack since they were dominated by lower riparian countries of Egypt which want to maintain the status quo. This constitutes a departure from the past trend of unilateral uses and management of the water, in the sense that it attracted the support of almost all the riparian states and specifically emphasized the issues of fair water allocation, joint management and development of the resource (Kebrom, 2011: 28). In the light of the prevailing disputes, and the mistrust and suspicion among the riparian states, which typify the basin, securing the participation, under the umbrella of the NBI, of all the states involved in the issues of the Nile, is a major breakthrough in the move towards cooperation.

The NBI also has two tracks (ISS and EIIPD report, 2010:21): The technical tracks and the legal tracks. The technical aspect of the NBI deals with environmental, irrigation, watershed, flooding and hydropower projects under the Shared Vision Programs (SVPs) and Subsidiary Action programs (SAPs). The legal track deals with the legal and institutional aspects of the NBI. NBI is a transitional mechanism until the CFA is going to be signed by all riparian states, which will

lead to the formation of permanent Nile Basin Commission (NBC) when the existing NBI lifetime ends. Cooperative Framework Agreement (CFA) was prepared under NBI. Despite the strong opposition of Egypt and Sudan, which claim historic rights on the Nile waters, the Agreement was opened for signature on May 14, 2010, for a period of one year during a ceremony held at Entebbe, Uganda (ibid). Five states have already signed it: Ethiopia, Kenya, Rwanda, Tanzania, and Uganda. Burundi signed in 2011 and the Democratic republic of Congo is expected to sign in due course. The new Cooperative Framework Agreement is influenced by the UN Convention on the Law of Non-navigational Uses of International Watercourses. The CFA does not include any figures about water sharing. It establishes a framework for cooperation among the Nile River Basin states (Wondwosen, 2008:23).

The NBI structure comprises a Council of Ministers (Nile -COM) that responsible for water affairs of the 11 riparian countries and a Technical Advisory Committee (Nile-TAC) with a maximum of two representatives from each Nile Basin Country, and a secretariat (Kang'ethe, 2012:27) (see figure 3.1). The Nile Basin Initiative is governed by a Council of Ministers, its highest decision-making organ. This Council is made up of water affairs ministers of the Nile basin states. Chairmanship of the Council is rotated annually. Supporting the Council is the Nile Technical Advisory Committee, which is made up of senior officials from the various countries. The Technical Advisory Committee consists of one member from each country and an alternate. The NBI maintains a secretariat (Nile-SEC) located in Entebbe, Uganda and started operations in June 1999. In addition to providing administrative, financial and logistical support and services to Nile-TAC and the Nile-COM, the Secretariat is responsible for the co-ordination and monitoring of the Shared Vision Program working groups and Subsidiary Action Programs where appropriate, and for providing logistic support to these activities (Wondwosen, 2008:29).

Figure 3.1 showing NBI organizational structure



Source: Adapted from Fahmy, 2010

Figure 3.2: Secretariat offices of NBI in Entebbe, Uganda



Source: NBI report, 2012

The NBI is comprised of the Strategic Action Program which is divided into two complementary components, one based on a shared vision and the other focused on action on the ground. These two pieces are embodied in the Shared Vision Program (SVP) to create an “enabling environment” for cooperation, trust and skill building, and the Subsidiary Action Program (SAP) which plans and implements investments and projects “on the ground” beginning at the most basic levels of society (Yaekob, 2011:23). In addition, the NBI has formulated two subsidiary action projects with an aim of translating the vision into a reality. The projects include the Eastern Nile Subsidiary action Project (EN-SAP) composed of Egypt, Sudan and Ethiopia and the Nile Lake Equatorial Region Subsidiary action Project (NEL-SAP) consisting of all other riparian countries, with exception of Eritrea (ibid). The division of projects into these two groups is crucial for the future success of the NBI, but actual progress has been minimal, limited mainly to studies and information sharing.

The Nile Basin Initiative was created with the intention of forming a permanent commission within three years time. However, after twelve years, the countries of the NBI have failed to agree on a formalized legal agreement to form such a body. This particular failure highlights the difficulties associated with attempting to gain a consensus among such a wide array of interests and needs. Despite the fact that the NBI has helped to relieve the tension within the basin, there are key issues that are yet to be addressed. It has delayed the most burning contentious issues of water allotment especially between Egypt, Sudan and Ethiopia (Knobelsdorf, 2011:14). These controversial issues exist because of the legacy of colonial agreements of the Nile water allotment, which favor Egypt at the expense of other riparian countries.

3.2. The Euphrates- Tigris River Basins

3.2.1. The Physical and Hydrological Description

The Tigris and the Euphrates rivers are the two greatest Rivers of Western Asia. They pass through different climatic and topographic zones in their journey from source to the mouth. Their origins are 30 kilometers from each other, in a relatively cool and humid zone with a rugged landscape of high mountains and deep gorges, raked by autumn and spring rains and visited by winter snows, with annual precipitation levels close to 1,000 millimeters (mm) per year (Michel et.al, 2012:8). From there, the two rivers run separately onto a wide, flat, hot, and poorly drained

plain, the Mesopotamian Plain where the climate takes on a more semi-arid or arid nature, where precipitation levels can average less than 250 mm per year, mid day temperatures rise above 50°C and relative humidity stay below 15 percent. In their middle courses, they diverge hundreds of kilometers apart, only to meet again near the end of their journey and discharge together into the Persian Gulf.

Map 3.2: Euphrates -Tigris Catchment Area



Source: MacQuarrie, 2004

Geographically, the upper sections of the rivers have carved their way through mountain gorges of Anatolia (South-Eastern Turkey) and the high plateau of Syria and Iraq, leading to their confluence near Basra, where they join to form Shatt-al Arab in lower Iraq and fall off the final limestone plateau and onto the great plain of Mesopotamia (Jongerden, 2010:12). It is here that the rivers, heavily loaded with silt from the highlands, lose much of their energy and begin to meander and sometimes separate in series of braided channels. Approximately, over 3 million tons of eroded soils and earth materials are deposited into the Tigris-Euphrates basin in a single day during spring season.

The Euphrates River begins with two tributaries, the Murat-Su and the Kara-Sue (or Frat-Sue) in the Turkish region of Anatolia, which meet north of the city of Elazia (Altinbilek, 2004:21). While traversing the barren North East corner of Syria, the Euphrates is joined by two tributaries; the Balikh and the Khabur Rivers. There is not a large volume contribution from these two

rivers. As the Euphrates enters into Syria it carries an estimated 30 billion m³ per year, rising to 32 m³ per year as it leaves Syria to enter Iraq. For the remaining 1000km of its journey in Iraq, no more water flows into the Euphrates. When we look at the annual share of each riparian country to the flow of the Euphrates River, again Turkey Takes the lion share contributing 98.6% of the total annual volume. Syria's contribution is very small, which is 1.4% of the total annual discharge. Other riparian countries do not have any contribution (Biedler, 2004:24).

The Tigris River originates in the small mountain lake of Jazar Golu in Turkey (Granit and Lofgren, 2010:23). Unlike the Euphrates, the Tigris flows directly towards Iraq and the Mesopotamian Plain with only a brief parallel alongside the Syrian border. Only 20% of the length of the Tigris lies in Turkey. The remainder lies in Iraq where it is fed by the Iranian-based tributaries of the Khabur, the Greater Zab (partly beginning in Turkey), the lesser Zab, the Uzaym and the Diyala rivers which flow down from the Kurdistan and the Zagros Mountains (ibid).

Of the estimated total annual flow of the Tigris River, Turkey contributes for 20 to 23 billion m³, but during its passage in Iraq it receives from other tributaries an additional 25 to 29 billion m³. Calculation of flows is difficult due to annual as well as seasonal variations. Turkey leads the contributions of each riparian country having 65% of the total annual discharge of the Tigris River, followed by Iran (21.7%) and Iraq (13.2%), whilst Syria's contribution is nil (Jongerden, 2010: 26).

Table 3.2: Summary of Each Country's Contributions to the Euphrates-Tigris Basin

Tigris & Euphrates Rivers	Turkey	Iraq	Syria	Iran	Total
Discharge (%)	78.1	8.1	0.5	13.3	
Volume in Billion m ³ /year	65.7	6.8	0.5	11.2	84.2
Drainage Area (%)	20.5	46	9	19	
Drainage Area (km ²)	170000	469000	77000	37000	819000
River Length (%)	33.5	51	15.5	-	
River Length (km)	1630	2478	754	-	7861

Adapted from: Murray, 2004

The two Rivers basin (Euphrates-Tigris) supported a diverse number of civilizations (Mesopotamian, Babylonian, and Assyrian) and peoples for nearly 6000 years (Wolf, 2007:12). Historically, in the lowlands of the basin lived peasant cultivators, who irrigate lands along the banks of the rivers. Nomadic Arabs grazed their flocks on the arid plains. In addition, an increasing number of urbanites who inhabit the cities are using water for domestic uses. In the highlands of Kurdistan, the Kurdish mountaineers relied on water sources though now largely displaced by the Turks early in the twentieth century.

Unlike Syria and Iraq, who both have a long history of irrigation, Turkey's agriculture tended to rely largely on natural precipitation rather than irrigated. Though, irrigable land was available along the two River basins, Turkey did not use the water resources for such purposes. Consequently the majority of water consumption in Turkey had little or no trans-boundary impact with its neighbours. Also in "pre-industrial" Turkey the use of water resources for hydro-electricity was limited mainly to servicing the needs of urban centers.

However, Turkey's economic history has changed immediately after World War II, i.e. in the 1950s, when Turkey joined the Western Bloc (Warner, 2005:180). Turkey was encouraged and rewarded by financial assistance from the United States and International agencies and began a process for economic development. The decision by Turkey to build itself into an economic player on an international scale was not just due to opportunism but had its roots earlier in the 20th Century.

During the 1930s Turkey had established an independent agency known as the Electrical Resources and Survey and Development Agency which was responsible for surveying rivers to establish their suitability for hydro-electric power production. Then, many hydro-electric dams were constructed began with six dams in the 1950's but increased exponentially to one hundred and sixty nine dams by the late 1990s (Jongerden, 2010:34).

3.2.2. Legal Agreements on the Euphrates-Tigris Waters Utilization

3.2.2.1. Early Agreements and Protocols Related to the Euphrates-Tigris Rivers (1900-1960)

This period was a period of no water conflict between the riparians and relationship between them was considered as harmonious. During this time there were historical agreements and protocols signed between the riparians, Turkey's government and the colonial powers for preserving the status of cooperation on water resources. These are shortly discussed here in under.

A. Franco-British Convention of 1920 (Paris Treaty)

This was the first international agreement signed between Britain and France, the then mandatory powers of Iraq and Syria respectively on December 23, 1920. According to Article 3 of the treaty, the mandatory powers agreed to establish a committee to examine and coordinate the water utilization of the Euphrates and Tigris Rivers (Sagsen, 2006:43).

B. Franco-Turkish Agreement of 1921

It was an agreement signed between France (on behalf of Syria) and Turkey on October 20, 1921. According to this treaty, the Kuveik River would be shared between the Turkish section and Aleppo on its south, within a framework of equity and justice and Syria would be able to receive water from the Turkish part of the Euphrates at its own expense. Article 12 of the agreement had an important concept related to equity and justice as the following:

The Kuveik water is to be distributed between the city of Aleppo and the region under Turkish control in such a way as to give equitable satisfaction to the two parties. The city of Aleppo to meet its water requirements will be able to take water from the Euphrates the costs are paid (as cited in Sagsen, 2006: 34).

Thus, we can easily understood from this article that Syria would take water from the Euphrates River by its own costs or expenses, which is only limited to the region of Aleppo.

C. The Lausanne Treaty

It was a treaty signed during the colonial period between Turkey and British, the latter on behalf of Iraq in 1923 which stipulated that Turkey should consult with Iraq before undertaking any hydrological works. In other words, the downstream parties' rights were reflected in the Treaty of Lausanne, which noted that Turkey should confer with Iraq before beginning any activities that may alter the flow of the Euphrates (Berardinucci, 2010:23).

D. The Treaty of Friendship and Neighbourly Relations of 1946

This was a treaty concluded between Turkey and Iraq in 1946 in Ankara after independence of the latter from British mandate rule. The protocol annexed to this treaty was an important legal text on the waters of Euphrates and Tigris Rivers and its tributaries (Kibaroglu, 2007:15). This protocol shows that Turkey and Iraq considered the water issue as a technical and engineering matter which needs collaboration between them. Its primary aim was the construction of the protection and observation posts on Turkish territory to prevent downstream flooding.

3.2.2.2. Bilateral and Trilateral Treaties Signed from 1960-2000 Concerning Euphrates-Tigris Rivers.

A. The Protocol of 1987 between Turkey and Syria

The Turkish-Syrian Joint Economic Commission meeting on 17 July, 1987 was said to have an important outcome regarding the negotiations on the water issue. The Protocol of Economic Cooperation signed by Turkey and Syria at the end of the meeting included provisions for water. As a result, Turkey decided to release a yearly average of more than 500 m³/sec at the Turkish-Syrian border and in cases where monthly flow falls below the level of 500 m³/sec, it was agreed to compensate during the following month. From several articles pertaining to the water issue one was article 6 which reads as follows:

During the filling up period of the Ataturk Dam reservoir and until the final allocation of the waters of the Euphrates among the three riparian countries, the Turkish Side undertakes to release a yearly average of more than 500 m³/sec., at the Turkish-Syrian border and in cases where the monthly flow falls below the

level of 500 m³/sec., the Turkish Side agrees to make up the difference during the following month (as cited in Sagsen, 2006:46).

This article indicates that the quantity of waters flowing to the Turkish-Syrian borders during the filling of Ataturk dam in Turkey should not be less than 500cubic meter/sec. Thus, it was a provisional agreement coinciding with the filling of Ataturk Dam.

B. Water Allocation Agreement between Syria and Iraq: The Protocol of 1990

With regard to water allocation between Syria and Iraq, the 13th meeting of the Joint Technical Committee (JTC) held in Baghdad on 16 April 1990 is worth mentioning. The agreement provided the framework for a bilateral accord between Syria and Iraq, according to which 58% of the Euphrates waters coming from Turkey would be released to Iraq by Syria (Berardinucci, 2010). However, these bilateral accords were largely the products of the then-prevailing political atmosphere and they have not served the goal of achieving efficient and equitable allocation and management of the water resources in the Euphrates-Tigris river basin.

C. Joint Technical Committee /JTC/

Eventhough the origins of the JTC went back to Turkish-Iraqi treaty of 1946, it was formally established in 1980 by Turkey and Iraqi to continue the effort to reach a solution that would satisfy the needs of the riparian states in the basin. A bilateral agreement in 1982, followed by Syria's inclusion into the committee, created a common ground for the riparians. The important duty of the Committee was stated as follows by Kibaroglu:

The essential mandate given to the JTC was to decide the methods and procedures which would lead to a definition of the reasonable and appropriate amount of water that each country would need from both rivers. The major items on the agenda of the JTC were the exchange of hydrological and metrological data and information on the Euphrates-Tigris basin, sharing of information on progress achieved in the construction of dams and irrigation schemes in three riparian countries and the discussion of initial plans for filling the Karaya and Ataturk Reservoirs (2000: 8).

Thus, the JTC was created to collect information on water use, development projects, and irrigation measures as well as meteorological data that would then be used to determine the water needs of each riparian. Unfortunately, this committee had a great deal of difficulty dealing with the issues on its subsequently held meetings in Ankara, Baghdad, and Damascus. Especially, the initiation of the Turkey's GAP project in the mid-1980s and the completion of the Ataturk Dam in 1990, created problems that eventually led to the dismissal of the committee. Eventhough the JTC did not fulfill its objectives of coordinating the development and use patterns of the three riparians it could serve as a useful channel of communication between them.

3.2.3. The Three Stage Plan of Turkey: Turkish Proposal to Solve Water Sharing Problem

In response to Syrian and Iraqi demands for the formulation of urgent sharing arrangements depending on the criteria that they put forward, Turkey proposed the Three Stage Plan for Optimum, Equitable and Reasonable Utilization of the Trans-boundary Watercourses of the Tigris-Euphrates Basin (Kibaroglu, 2004:25).

With the Plan, Turkey called for the establishment of a joint body for collecting, handling and exchanging data regarding water and land resources so that annual and seasonal variations can be incorporated in the estimations made to determine the allocations. Hence, data gathering through joint efforts would enable the riparian countries to become accustomed to cooperation and to proceed with discussions over water allocations. Thus, as its name indicates this plan has three staged: the first stage was inventory studies for water resources, after this inventory for water resources come and lastly the evaluation of the water and land resources.

Though the Plan was coolly received by Iraq and Syria, the fact that it is a needs based approach makes it conducive to cooperation. Again, due to particular emphasis on a legal settlement the Plan will retain its innovative status in trans-boundary water coordination. Therefore, there remain many opportunities in the region for initiating innovative actions in trans-boundary water management coordination.

CHAPTER FOUR

4. RIPARIAN RELATIONS AND RECENT POLITICAL DEVELOPMENTS IN THE NILE AND EUPHRATES-TIGRIS RIVER BASINS

The aim of this chapter is to explain the relationship between the riparian states of the Nile and Euphrates-Tigris Rivers in general and regarding water utilization in particular and to highlight the recent political developments which are in a position affect the cooperative spirit of the two basins. Within this frame work, the relation between the influential states especially Egypt, Ethiopia, Sudan in the Nile basin and Turkey, Syria and Iraq in the Euphrates-Tigris River basin are main focus of this chapter. In addition to these, recent political developments like the political crisis in Egypt, the independence of South Sudan and the signing of CFA by upstream states of the Nile basin while in case of Euphrates-Tigris River basin developments since 2000 particularly GAP-GOLD protocol between Turkey and Syria, three stage plan of Turkey, the Euphrates-Tigris Initiative for Cooperation (ETIC), the Southeast Anatolia Development project/ GAP/ and the current crisis in Syria is taken into consideration.

4.1. Riparian Relations in the Nile Basin

The conflicting interests of upstream and downstream states have historically polarized the relations between riparian states of the Nile basin and generated inter-regional tension that inhibited cooperative efforts. Interactions between the riparian nations have been historically characterized by mutual distrust, intimidation, and competition. For much of the post-colonial era the dominant water management paradigm was one of individual states unilaterally pursuing their own self-interests without regard for how their actions impacted their riparian neighbors. In addition, the limitations of the 1929 and the 1959 Nile water treaties continue to negatively affect interstate relations among the Nile basin countries. However, this does not mean that the cooperative effort has been totally absent. Particularly, with the establishment of Nile Basin Initiative the riparian states have become realized that round table dialogue is the only way to end the polarized relations between up and downstream states. On the country level, Egypt, Sudan and Ethiopia are the most important actors in the Nile basin. While there are eleven riparian countries in the Nile basin, only three of these are in the most critical position for

peaceful, cooperative sharing of Nile water. Because Egypt and Sudan were/are the most dominant consumers while Ethiopia is the most important source of water i.e. around 86% of the Nile waters originate from Ethiopia. Thus, when the issue of the Nile is raised, it cannot be separated from these three countries more than any other countries. Therefore, under this section the relation between them is stressed and when necessary the others as well.

4.1.1. Egypt-Sudan Relations

The contact between Egypt and Sudan went back as early as the 8th millennium BC (Mason, 2004:67). But, modern relations began when an Egyptian army under Ottoman control invaded Sudan in 1820. Egyptian rule ended in 1885 but returned in the form of the Anglo-Egyptian condominium from 1899-1955. Even after Sudan's independence in 1956, Egypt worked hard to exert influence over developments in its southern neighbor. This one-sided relationship between Egypt and Sudan left psychological scars on northern Sudanese. In the minds of most Sudanese, Egypt continues to think of Sudan as part of its backyard (Elliott School of International Affairs, 2013: 25).

The nature of Egyptian- Sudanese relations could be understood from two angles: Cooperative and conflictual. Regarding conflictual relations, there were/are many non-water factors which contributed for the deterioration of the relations between them. Firstly, the Egyptian perception of big/small-brother relationship with Sudan, which is especially disliked by many Sudanese. The second reason for tension between the countries is the fear and possibility of one country supporting the internal opposition of the other country. For instance, relations between them reached a lowest point in June 1995 when Egypt and Ethiopia charged authorities in Sudan with participation in a plot by an Egyptian terrorist organization to assassinate President Mubarak as he arrived in Addis Ababa for an Organization of African Unity meeting. Sudan was accusing Egypt as if it was supporting Sudanese opposition forces. Further, there was a bone of contention over disputed territory in the northeast, the "Halaib triangle" that borders the Red Sea which both countries consider it as a part of their territory (Mason, 2004: 56). For example, Sudanese President Bashir complained in April 1995 that relations with Egypt had become strained because Cairo had reoccupied the Halaib Triangle which she had already abandoned to campaign for it.

In terms of cooperative relations, it is possible to raise the following points: the first thing is that there is a cultural, religious and linguistic unity between North Sudan and Egypt which is based on the Arabic language, Islamic religion and joint history because of the influence of British colonialism. Regarding this, one of the leading experts on Egypt and Sudan, Gabriel Warburg, argues as the following:

There is no natural border between the two countries. Egyptian and Sudanese Nubians have more in common with each other than Egyptians in Cairo have with Egyptians of Upper Egypt or the residents of Khartoum have with the Beja tribes in the Red Sea hills, the Fur in Darfur, the Nubians in the Nubian Mountains, or the southern tribes in Bahr al-Ghazal and Equatorial. This has not prevented, however, Egyptian nationalists of all stripes from insisting that a united Nile Valley that includes Sudan is essential and justified (Warburg, 2000: 39).

It may be argued that the relations among Egypt and Sudan been well over water issues, even if they have been tense for reasons other than water. The 1929/1959 agreement over Nile water utilization can be a good example for this. In addition to this, there was also a seasonal migration of Sudanese to Egypt during the summer and of Egyptians to Sudan during the winter as long as it was easy to get a visa. This shows how much interaction between them at the society level. Further, Egypt and Northern Sudan had also been working together to integrate the Southern Sudanese into the Northern. This was understood from their efforts of giving scholarships for South Sudanese citizens and by encouraging of mixed marriages between South Sudanese and North Sudanese or Egyptians.

By the end of 1999, the two countries agreed to normalize their diplomatic relations where President Bashir visited Egypt. Bashir returned to Cairo in 2002 when they stressed their brotherly ties and put in motion actions to expand cooperation on a variety of practical issues, including increased trade. During a visit to Khartoum in April 2006, Mubarak backed Sudan's preference to deal with the crisis in Darfur in an African and Arab framework. He described Egyptian-Sudanese ties as "permanent relations with joint fates" (Elliott School of International Affairs, 2013: 23). From a hydrological and historical perspective, Darfur is not part of the Nile Basin; it is part of Sudanese Africa. Earlier in the year, Egypt also backed Bashir's controversial chairmanship of the 2006 African Union summit.

President Mubarak commented about the Jonglei Canal project during his interview with the Sudan News Agency in Khartoum in March 2006. He said that it might be possible to resume work on the Jonglei Canal now that the war had come to an end (Deng, 2007:29). The Jonglei Canal was a project planned to be constructed by Egypt and Sudan to increase the total amount of water through minimizing evaporation from the Sudd swamps in the South of Sudan by building a canal. However, this project was stopped due to troubles in the South Sudan which resulted in the destruction of its head quarter by SPLA.

In September 2012, president Omar al-Bashir of Sudan made an official visit to Cairo which makes him one of the first presidents to officially visit Egypt following the revolt that brought an end to Hosni Mubarak's regime. During this visit both he and newly elected Egyptian President, Mohammed Morsy emphasized the importance of bilateral partnership, dialogue, trade, cooperation and most importantly, an agreement on the Nile water (Dirbaba, 2013:16). Undoubtedly, one of the core issues that a number of African countries are grappling with is that of the Nile River, with disputes over water rights with neighboring Nile Basin countries remaining unresolved.

Eventhough the relations between Egypt and Sudan are characterized by ups and downs, it is generally possible to conclude that the relations between them can be said to be good over water resources, but at times tense over other issues.

4.1.2. Ethio-Egyptian Relations

The relations between Egypt and Ethiopia went back to the early years of Axumite kingdom. This means they have been in contact for centuries which seem to have been based on the Red Sea trade. Not only this, there is a long and important link between the minority Egyptian Coptic Church and the Ethiopian Orthodox Church. However, the relationship of the two States is older than the relations between the churches. To substantiate this contention there are historians who indicate that the early Ethio-Egyptian contact dates back to 2800 B.C, (Waterburg, 2000:23) when Egyptians tried to locate the source of Blue Nile and its tributaries. Historical relics found in the tombs of pharaohs and inscriptions found on the tomb of Titmos the Third, mentions

places like Adulis, and Tigre, thereby indicating early contacts Ethiopia had with Egypt (Ademnur, 2003: 49).

Over the last 50 years, especially in the pre-Mubarak period, Egypt's ties with Ethiopia have been marred by differences and misunderstandings. During the late 1950s and early 1960s When Ethiopia was struggling to reincorporate Eritrea as an integral part of its empire, Egypt opened a small military training camp for Eritreans opposed to Ethiopian rule in its own territory. Egypt also permitted Eritrean rebels to use Radio Cairo in an effort to undermine the Haile Selassie government. Egypt allowed the predominantly Muslim Eritrean Liberation Front (ELF) to establish an office in Cairo. With Egyptian support, the Arab League in 1962 extended complete solidarity to the ELF. These events occurred at a time when Egypt was interested in undermining Haile Selassie's pro-American and pro-Israeli government. But Egypt also saw this policy as useful in diverting Ethiopia's attention away from efforts to develop Nile water projects.

Egyptian involvement in Ethiopia's affairs was not limited to this. Egypt has also a long history of involvement in Muslim Somalia, during periodic conflict between Ethiopia and Somalia in the 1960s and 1970s, by providing military training and weapons to Somalia. In 1978, for example, Egypt reportedly gave millions of dollars worth of Russian military equipment to Somalia. Again, during the Derg regime, relations deteriorated to such a degree that Egypt's President Sadat threatened to bomb any Ethiopian projects along the Blue Nile, and Ethiopia's Mengistu threatened to decrease the flow of the Blue Nile (Swain, 2008: 27). However, relations between Egypt and Ethiopia improved when Ethiopia's Mengistu government ended. To this end, The Framework for General Cooperation between Egypt and Ethiopia was signed in 1993. Signed by the late Ethiopian Prime Minister Meles Zenawi, and former Egyptian president Hosni Mubarak, the framework recognized that future negotiations between the two countries concerning the utilization of the waters of the Nile would be based on the rules and principles of international law. This was the first bilateral framework for cooperation signed between them regarding the Nile issues, after the colonial period. This agreement, further stipulated the issue of equitable utilization and Ethiopia's agreement not to cause significant harm to others in any utilization of the waters of the Nile.

In recent years, Egypt has engaged in something of a positive relationship with Ethiopia. It provides modest assistance in the areas of health, the judiciary, police, crime prevention, scholarships, and training in the fields of nursing, electric power, and cattle breeding. The late Ethiopian Prime Minister Meles during a visit to Cairo in 2005 expressed satisfaction with cooperation in the Nile Basin Initiative and the development of bilateral relations between the two countries. He noted that Egypt had signed an agreement to purchase \$200 million worth of meat from Ethiopia over five years (Sudan tribune, 2011:7). In the aftermath of the signing of CFA a lot of business men and different ministers from Egypt had visited Ethiopia in mass. The focus of these visits was more or less a bilateral trade and investment affairs.

After Egyptian revolution of 2011, the Egyptian public diplomacy also visited Addis Ababa. Forty-eight members of an Egyptian delegation led by Mr. Mustafa Al-Gendi, consisting of three presidential candidates, members of a parliament, and intellectuals from universities, members of different political parties and of the revolutionary youth movement of January 25th who toppled down the Mubarak government have arrived in Addis Ababa on April 29th to mend relations between the two countries (A Week in the Horn, 2011:10). After congratulating the delegation and the Egyptian people for their recent success in addressing the challenges the country had faced peacefully, the late Ethiopian Prime Minister Meles Zenawi emphasized that the visit would open a new era in Ethio-Egypt relations. Regarding the Nile water utilization the late prime minister mentioned about the iniquities of the agreements of 1929 and 1959 in the following points:

The 1929 agreement, signed between the British and its colonies, for the sole benefit of the cotton farms of Egypt; the 1959 agreement, the Agreement between Egypt and the Sudan, was for full utilization of the Nile Waters without taking into consideration the interests of any other stakeholders. Ethiopia was not a party to either, and its leaders had rejected both as unjust (as cited in A Week in the Horn, 2011: 4).

He further said following the Entebbe Agreement of 2010 that:

“Some people in Egypt have old-fashioned ideas based on the assumption that the Nile water belongs to Egypt.” But, “the circumstances have changed and changed forever.” The political and demographic changes as well as the rapid development witnessed have enabled the nations to work more for mutual benefit (as cited in Yaekob. 2011: 35).

He further contended that the Nile River should be looked at as a network within the Nile Basin that could benefit all stakeholders equitably. The new revolution in Egypt was for justice and the dignity of the Egyptian people and he hoped this would be replicated in the utilization of the Nile waters. He reassured the delegation that Ethiopia would Endeavour to ensure that the Nile waters were used equitably among all riparian states; he expected all riparian states to show reciprocal policies and attitudes.

On the other hand, the delegation vowed and avowed that the relations between Egypt and the rest of the Nile upstream countries in general and Ethiopia in particular will never be back to what it looks like during the period before the Egyptian riot that casted out Mubarak's regime. They even went further and gave the impression that they were unhappy about the colonial treaties on the Nile signed during the colonial period (Elliott School of International Affairs, 2013:13). However, it is better to be careful that Egyptians periodic visits to Ethiopia after the signing of CFA and announcement of GERD by Ethiopian government might be a show to focus on bilateral relations instead of the multilateral ones. It might be a kind of demonstrations to other upstream states as if Ethiopia has had a very strong bilateral relation with Egypt that would have undermined the multilateral path on the Nile so that the other upstream states would follow. Thus, Ethiopian government should carefully follow this Egyptians tactic and retaliate it diplomatically.

4.1.3. Ethio-Sudanese Relations

The last point to see is the relation between Ethiopia and Sudan. Ethiopia and Sudan are neighboring countries in the Horn of Africa, which share a boundary of about 1,600 kilometers (or nearly 1,000 miles). Despite this fact, there has been a long history of conflict (and occasional cooperation) along this frontier. There were periodic battles between the Funj Kingdom in Sudan and Ethiopian emperors during the 17th and 18th centuries (Ahmednur, 2003: 27). The relations between Khartoum and Ethiopia for long period of time regarded as niggles and distrust since both states circuitously occupied with supporting and reinvigorating rebellious groups of each other and engaged in destabilizing regimes. From Sudanese independence in 1956 until Ethiopia's 1974 revolution, relations between the two countries fluctuated dramatically between conflict and cooperation. Deep suspicion of the other side prevailed in Khartoum and

Addis Ababa. From 1974 until Sudan's 1989 coup, relations between Sudan and Ethiopia were generally poor. Mengistu regime had lent its hand and inexorably gave support to Sudan People Liberation Movement/Army (SPLM/A) to offset Khartoum back of Eritrea Liberation Front (ELF) until its regime was overthrown in 1991 (Hemmer, 2010:18).

The relations of these countries began a new as friendly in 1991 when the EPRDF seized political power in Ethiopia. These relations, however, deteriorated and a state of conflict prevailed between 1995 and 1998. Fortunately, the relations between Ethiopia and Sudan started to improve without leading to serious confrontation and have become cordial since the middle of 1998. The contact, between Ethiopia and Sudan through the waters of the Blue Nile, Sobat, and Atbara rivers has also been among the factors affecting the relations between the two countries. The issue of water has been so important in Ethio-Sudanese relations due to the former's need to make substantial use of the headwaters within its jurisdiction, and the latter's interest of ensuring the continuous flow of the tributaries of the Nile originating from Ethiopia. Despite Ethiopia and Sudan have not been in serious confrontation in relation to the issue of water, in the squabbling between the downstream and upstream countries over the Blue Nile, Sudan become part of it. In connection with this, Ethiopian scholars, for example, Ahmednur (2003:57) argue that Ethiopia's provision of bases for the SPLA which was paralleled by Sudanese support for Ethiopian opposition movements during the Dergue regime was partly interwoven with the Blue Nile water politics. But, this argument was not convincing since we lack strong evidence that the reciprocal sponsorship of opposition groups by the two neighbouring governments were interwoven with the Blue Nile water politics. Rather, it can be argued that it complicated relationships between them and makes the negotiation of other issues, such as water, more difficult.

Ethiopian-Sudanese dialogue on Nile water usage has vacillated in recent decades between conflict and cooperation but recently trended towards the latter. Following the change of government in Ethiopia in 1991, the two countries agreed to explore cooperation over the Blue Nile and Atbara River, which alarmed Egypt since Sudan signed the agreement without having consulted Egypt in advance. According to this agreement, the two states declared their belief in the principle of "equitable entitlements to the use of the Nile waters without causing appreciable harm to one another."

Ethiopia and Sudan have also been working together to solve the problem between Sudan and South Sudan from the first half of 2010 onwards and since the independence of the latter in 2011. This can be evidenced from the recent Ethiopia brokered Addis Ababa agreement between Sudan and South Sudan. Ethiopia and Sudan both have much to gain from closer cooperation through an energy deal to exchange Sudanese oil and Ethiopian electricity. In connection with this, John Waterbury concluded that “Ethio-Sudanese cooperation in the management of their shared basins is compelling.” He added that a day will come when Sudan “once again turns to the development of the millions of acres of good land lying between the Blue and White Niles, and there are solid objective reasons why they might make common cause with Ethiopia”(as cited by Elliott School of International Affairs, 2013:9). In addition, in a recent study of the Nile Basin, Jack Kalpakian of Al-Akhawayn University in Morocco wrote that rather than reaching an agreement with Egypt in 1959, “Sudan’s interests would have probably been served by helping itself to the water or reaching some accommodation with Ethiopia (ibid).” The 1991 Ethio-Sudanese agreement and subsequent relations between these countries confirm that the Egyptian influence on Sudan, as evidenced from previous relations, exerts significant impacts upon Ethio-Sudanese relations.

In general, relations between Sudan and Ethiopia are seen as fluctuating, depending on the momentary political situation. However, the relation, between Ethiopia and Sudan through the waters of the Blue Nile, Sobat, and Atbara rivers has been among the factors affecting the relations between the two countries. The issue of water has been so important in Ethio-Sudanese relations due to the former's need to make substantial use of the headwaters within its jurisdiction, and the latter’s interest of ensuring the continuous flow of the tributaries of the Nile originating from Ethiopia.

4.2. Recent Political Developments in the Nile Basin

In 2010 and 2011 several considerable changes took place in the Nile basin which was directly or indirectly influence positively or negatively the Nile water cooperative efforts. These include the Egyptian revolution, the signing of cooperative frame work agreement by upstream riparian states, the independence of South Sudan and the launching of the Grand Ethiopian Renaissance Dam (here after GERD). Here in under is the brief discussion of each of them.

4.2.1. Egyptian Revolution

On February 11, 2011, Egyptian President Hosni Mubarak resigned from office after 18 days of protests. The gloomy prospects surrounding the use and allocation of the Nile waters seem to have improved following the 2011 Egyptian revolution that forced Mubarak to resign from power and brought about political change in the country. Mubarak's regime was known for its outright rejection of any negotiation process concerning the Nile waters. Many, including some Egyptians, believe that the recent political change in Egypt will boost the chances of reaching a new deal to equitably share the Nile waters. It seems that Egypt has changed its rules of engagement with upstream countries, particularly Ethiopia, in relation to the Nile question. This sign of rapprochement has been reinforced by the recent visit of a 48 member of Egyptian public diplomacy delegation and Egypt's Prime Minister Essam Sharaf to discuss the Nile River.

4.2.2. The Signing of CFA by Upstream Countries

After ten years of negotiation the countries of the Nile Basin come up with the cooperative Framework Agreement (here after CFA) which firmly founded on the principle of equitable and reasonable utilization of the Nile waters (Kidane, 2012:21). In line with this, article 4(1) of the CFA declares that "Nile Basin states shall in their respective territories utilize the water resources of the Nile River Basin in an equitable and reasonable manner. It is a means to create a positive sum game between them where all the riparians are determined to win.

The NBI achieved tangible progress in 2010, when four of its members met in Kampala, Uganda to sign the CFA treaty. Uganda, Tanzania, Rwanda and Ethiopia signed, followed shortly by Kenya. Burundi signed the CFA in February 2011 bringing the number of signatories to six. Recently South Sudan has declared to join it and Democratic Republic of Congo is expected to join soon. However, Egypt and Sudan have still persisting not to sign the agreement with the aim of maintaining the status quo. The major point of difference between up and down stream states is on article 4(1) which states that the Nile Basin states agree "not to significantly affect the water security of any other Nile Basin states". But Egypt and Sudan refused this statement and Egypt proposes its substitute by "not to adversely affect the water security and current uses and rights of any other Nile Basin state". If the other riparian states were to accept what Egypt

proposed it would be the same as to putting a colonial yoke through fake treaty which would take the Nile Basin nowhere but a vicious-circle of distrust and doubt. It is difficult to believe that any cooperative framework agreement that does not include both up and downstream riparian countries as signatories will be a real and effective solution to the long-standing competition over the Nile waters. For this reason, in order to convince the downstream states to sign the CFA, upstream countries should exert their effort diplomatically to bring them to round table discussion.

4.2.3. The Independence of South Sudan

The independence of South Sudan in July 2011 and therefore the emergence of a new riparian state harboring the Sudd Swamps, an ecosystem crucial for the flow of the White Nile due to its large evaporation rates, has the potential of influencing upstream-downstream relations by new coalition opportunities. The creation of South Sudan as an independent state has both advantage and disadvantage: since regional tensions over water management and distribution have grown lately, the birth of an independent Southern Sudan would exacerbate this problem by adding another player to the game of Nile politics, which already involves an unmanageable number of states. On the other hand, Due to its strategic location, independent South Sudan would robustly brought adjustment and shift of power balance in the Nile basin because South Sudan is vital state in the Nile basin since most of its geography lies in the Nile basin (kenyi, 2011:18). Emergence of independent South Sudan in the Nile basin caused enormous panic to downstream countries. Existence of new Sovereign entity in the Nile basin has direct and indirect impact on both Sudan and Egypt. In the long run, South Sudan could bring into line itself with upper riparian countries and this might put Egypt and South Sudan at odds over the Nile. An independent South Sudan is another newly emerged state and her massive land incorporated much of White Nile with gigantic potential of hydro electric power and planned to engage in constructing hydro power stations by its own after discussing with upstream countries. That is why Paul Mayom, Minister of Water Resources & Irrigation of the Republic of South Sudan said on admission of the Republic of South Sudan to the Nile Basin Initiative that "The decision you took today will be received with cheerful applause by the Government and the people of South Sudan. This is because South Sudan geographically falls wholly within the Nile River Basin and therefore, our growth and prosperity are undoubtedly linked to the developments within the Nile

River Basin,"(Sudan Tribune, 2013:6) . Thus, we can easily understand from Mr. Mayom's speech that how much weight South Sudanese gave to the Nile River. Therefore, there will be a great hope that South Sudan would join upstream countries to challenge the influence of the Khartoum government and Egypt.

4.2.4. The Launching of GERD by Ethiopia

In April 2011, Ethiopia announced its plan to build the 6000 Megawatt Ethiopian Renaissance dam. The reservoir will be the largest water-body in Ethiopia, with a capacity of 63 billion cubic meters water, twice the size of the largest natural lake in Ethiopia, Lake Tana. This project is being constructed at the very course of the Blue Nile that contributes about 86% of the total Nile waters, some 40 kilometers away from the eastern boundary of the Sudan. During the launching of the project, the late Prime Minister Meles Zenawi said it would cost about 80 billion Birr (about 4.8 Billion USD) that would be covered domestically (Hammond, 2013). This was because Egypt had successfully lobbied against Ethiopia receiving access to external loans and grants.



Figure 4.1: Artist's impression of the Renaissance Dam, under construction on the Blue Nile
Source: MoFA, 2012 available at www.foreignaffairs.com/ethiopia-sponsored-section.

According to Ethiopian government, the construction of the Grand Ethiopian Renaissance Dam (GERD) over the Nile River is one of the major projects that could play major and decisive role

in realizing the five-year Growth and Transformation Plan and the consequent advance towards the eradication of poverty. The project is believed to improve the country's electric and energy needs by providing for between 65 and 87 percent of the entire power supply the country expects to generate over the period of the plan (Dirbaba, 2013:14). In addition, The Ethiopian Government has argued that as well as supplying Ethiopians with electricity, the dam would generate surplus energy for export to neighbouring countries, benefitting the wider region. The Ethiopian government further argues that the building of the GERD is a good opportunity for Sudan and Egypt. For instance, Sudan spent 70 percent of its water budget to avoid the silt. This is also a problem for Egypt. However, the building of the GERD could help these countries to receive filtrated water. The Second important advantage of this Dam is that it reduces the flood that causes property damage every year in these countries. It is Ethiopia also believed that the two countries: Sudan and Egypt, will get more water due to the building of the GERD as Ethiopian rivers fully flow only for about four months a year and then decrease, the amount of water that the two countries could receive has also decreased. Thus, the flow of water will be the same throughout the year if the GERD is built. Last but not least, the Dams in Sudan and Egypt have no power of retaining evaporation. The GRD, however, is in a deep gorge that it could decrease water evaporation so that the amount of water for the two countries could be increased. Despite the fact that Egypt is not comfortable with the construction of the GERD, the new Egyptian government is partially succeeding in strengthening cooperation with upper riparian countries, in contrast to the actions of the former Mubarak government. The attitude of many politicians in Sudan, and perhaps also the government, seems to be one of positive expectation towards the Dam. For instance, Al-Bashir, Sudanese president, on his behalf recently told the press that his country will provide the necessary support towards success of construction of the Grand Ethiopian Renaissance Dam since the project would help Sudan improve the flow of water in the summer and overall increase the amount of water available to his country. Similarly, Egypt's Prime Minister Essam Sharaf during his visit to Ethiopia said this has opened a "whole new environment" for settlement of the longstanding dispute over sharing the waters of the Nile River (week in the horn, 2013:10).

The Grand Renaissance Dam has mobilized Ethiopians from all corners of the world in the manner of no other cause in recent history. It has proved a stronger bond than ethnic, religious,

political or any other affiliation. It is not exaggeration to say that it is in fact further cementing the unity of Ethiopians in a manner to help ensure Ethiopia's Renaissance in the shortest possible time. However, this is not without exception. The majority of the Ethiopian diaspora in Europe and North America are exceptional in this regard. From the very beginning they were contending that the current political condition /environment/ of the country is not in a position to attract them in order to contribute to the development of the country. Within this context, most of the Ethiopian diasporas are not happy with the current human right conditions in the country (Lyons, 2009:26). They argue that EPRDF government is formulating repressive laws to systematically eliminate the opposition and opposition leaders. The issue of press freedom and the exodus of some journalists are again some of the issues which the Ethiopian diasporas repeatedly criticize. Because of these reasons, these diasporas considers the launching of GERD by Ethiopian government as a political motive behind i.e. in order to divert people's attention away from its domestic problem for the fear of the incidence of Arab spring in the country. Whether the government's intention is for political benefit or not, in my opinion it is their ethical and moral responsibility to contribute to the socio-economic progress of their country of origin in whatever they can despite their differences of political opinions. Many countries' diasporas have done much better than the Ethiopian diasporas, for example the case of China and India. Although, it may not be bad to be politicized if it is for a good cause, it is also much fruitful to think beyond simple politics and get involved in development endeavors of the country like GERD. It is also advisable for the government to have clear policy and strategy which is comprehensive enough to accommodate all the diasporas in order to enhance the development efforts of the country.

4.3. Riparian Relations in the Euphrates-Tigris River Basin

As already stated the relations between the riparian states of the Euphrates-Tigris River Basins was harmonious until 1960s. However, the relation between them started to deteriorate when they began to construct their own dams unilaterally without consulting each other. In other words, the reason why the situation changed was that in the 1960s all the three countries put forward ambitious plans to develop their water resources to expand their hydropower and agricultural outputs. Under this section, the relation between the three riparians of Turkey, Iraq and Syria are briefly discussed.

4.3.1. Turkey-Syria Relations

During the cold war, the confrontation between East and West was reflected in the Middle East in general and in Turkish-Syrian relations in particular. Even though this tension has been reduced by the world-wide softening of the Cold War, it has not completely disappeared. When the issue of relationship between Turkey and Syria was/is raised, three contentious issues dominated the scene: Syria's claims to Hatay/Iskenderun, a province in southern Turkey with numerous Arabic-speaking inhabitants; disputes over the waters of the Euphrates and Orontes Rivers, both of which flow through each country; and Syria's support for the Kurdistan Workers' Party or PKK, the Kurdish nationalist organization that Ankara and its allies have long considered a terrorist group. The Other thorny issue between Turkey and Syria is Turkish involvement in Arab – Israeli conflict, and their different alignment in international alliances.

Relations between the two countries have not been cordial since 1939, when France, then the mandatory power in Syria, handed the area around Alexandretta (Iskenderun in Turkish, Hatay³ in Arabic) over to Turkey as a bribe to enter World War II on the side of the allies (Phillips, 2012:29). Turkey accepted but then stayed neutral. Syria has never accepted this territorial loss and Syrian maps still show the territory as part of Syria. Damascus has never been able to hide the fact that it considers Turkish sovereignty over the Hatay as illegitimate.

Regarding water utilization, Turkey and Syria, mainly over the waters of the Euphrates River, and Orontes, are in a serious escalation of hostilities, which could lead to an all-out conflict between the two nations (Medzini and Wolf,?). Turkey, with the completion of the GAP project, plans to fully utilize its share of the Euphrates River, which is the only reliable source of running water for Syria. Syria needs the waters of the Euphrates River to continue its irrigation programs and to keep the water levels high in the Assad Lake in order to sustain the hydroelectric production. Political status regarding this situation deteriorated rapidly during the 1980s, when Turkey finalized its plans for the GAP and began constructing it. Syria accuses Turkey, the upstream country, of reducing the amount of water in the Euphrates, while in the case of the Orontes River, where Syria is the upstream country, it utilizes almost all of the river's water and

³ The Hatay Republic held a referendum in 1939 and decided to become a part of the Turkish Republic. Syria never recognized the decision, however, and to this day considers Hatay province part of Syrian territory.

releases a meager amount to its downstream country, Turkey. Because of this fact, Turkey and Syria have been in a constant conflict of interest over water utilization.

As leverage to Turkey's water policy, Syria began supporting the Kurdistan Workers' Party (PKK) which has been active in the South Eastern part of Turkey since 1984 (Sagsen, 2006:36). PKK is a separatist group of Kurdish nationalist which has been active in the GAP region of South Eastern Turkey and considered a terrorist organization by Turkish government. Thus, The Syrian support for PKK has caused great tensions between the two states. In 1998, tensions heightened to the point that Turkey threatened military action. To this end, Adana security protocol was signed to end the crisis between Turkey and Syria. Soon thereafter, Syria decided to expel PKK leader Abdullah Öcalan, whom it had been harboring, and to cease all support for his organization (Hinnebusch, 2012:10). Therefore, the Adana protocol was a turning point of the relations between the two countries and relations between them started to develop positively. More importantly, After the Justice and Development Party (AKP) rose to power in Turkey in 2002, the economic, diplomatic, commercial, and other relations between Turkey and Syria expanded significantly (Tziarras, 2012:15).

Another turning point in Turkey-Syria relations was the current Syrian crisis. After a decade of cooperation and closeness with Syria, Turkey's policy has changed radically as a result of the 2011–12 crisis in Syria. It is now openly calling for the overthrow of President Bashar al-Assad's regime and actively sponsoring the opposition. Within this context, despite the unstable situation in Syria, Turkey has been supporting the opposition, Syrian National Council (SNC), which it hosted in Antalya and Free Syrian Army (FSA) in order to topple down the Assad regime (Hinnebusch, 2012:17). Other than supporting the dissidents and oppositions, Turkey also has been offering humanitarian aid and providing shelter to refugees. Since Turkish government turned its face against the Assad regime since 2011, Damascus has revived its ties with the PKK, trying to increase the price Turkey will pay for backing the rebels. In addition to the renewing support for PKK, Syrian government retaliated against Turkey through a terror act on Turkish citizens. For instance, the deadly twin car bombings in the Turkish town of Reyhanli near the Syrian border on May 11, 2013 which claimed at least 46 lives, was apparently an act of retaliation by the Syrian regime for Turkey's support for the opposition (Weitzman, 2013:18).

Thus, the current relations between Turkey and Syria is full of tensions in which “no peace and no war” situations prevailing.

4.3.2. Turkey- Iraq Relations

There are many factors involved in determining the diplomatic relations between Turkey and Iraq. The most significant factors were/are: Security issues - tensions with the Kurdish minority in Northern Iraq and South-Eastern Turkey; the sharing of Euphrates and Tigris river water; commercial links including oil/energy. The Gulf war was the turning point in the relations between Turkey and Iraq. Despite the fact that there was a tension between them concerning water issues after 1950s, the relations between them until 1990s was fairly developed particularly in oil trade and other trade sectors. After Gulf war, the economic relation between Turkey and Iraq strained because of the former’s support of Gulf war coalition/ UN embargo/ against the latter. As result, Turkey denied the Iraq oil when the pipeline was closed. The situation continued until the American invasions of Iraq in 2003. The American invasion of Iraq in 2003 was another turning point in Turkey- Iraq relations. Even though the American war on Iraq also affected Turkish economy negatively in general, the level of relations between Turkey and Iraq increased after the 2003. But, the amount of restated relations and trade with Iraq is not in the level of relations before 1991 (Korkutan, 2001:40).

Regarding security issue, the Kurdish issue is the common security problem for both countries. The objective of Turkey and Iraq on the matter of Kurdish was similar: to suppress Kurdish separatist movement and maintain the territorial integrity of their respective countries. The elimination of the so called Kurdistan Workers’ Party (PKK), which they consider as a “terrorist organization” is a major security objective on the agenda of Turkish-Iraqi bilateral relations. Moreover, Turkey’s principal concern is that regarding the Kurds region of northern Iraq, the oil riches of Kirkuk will only encourage the Kurdistan Regional Government (KRG) to seek greater autonomy, which may spill over into its own borders and spark unrest among Turkey’s own Kurdish population (Tocci, 2013). The greater fear for Turkey was attributed to the recognition of KRG as a *dejure* region of Iraq with their entity legalized by the constitution of 2005. For this reason, Turkey has been working to maintain the territorial integrity of Iraq since the end of Saddam Hussien regime in 2003.

In this regard, Turkish Foreign minister, Davutoğlu stated the position of his government in the following paragraph:

Turkey's major objectives in Iraq since the toppling of Saddam Hussien's regime in 2003 have been the preservation of the country's territorial integrity, national unity, and reconciliation; the creation of a workable democratic system; determining the status of the contested, multi-ethnic city of Kirkuk in a way that will promote reconciliation; reconstruction and economic development; and the elimination of the PKK from Iraqi Kurdistan, the primary base of its operations (as cited by Süpürgeci and Semerci, 2011: 2).

Thus, Turkish concern about Iraq's political survival as a united state is having a significant impact on its security policy.

Regarding water issue, there has been a growing tension between the two countries since the unilateral construction of dams and development projects began. Since Iraq is found at the South eastern end of the Euphrates-Tigris basin, it has exposed great risks. Particularly Turkey's progressive constructions of GAP have strained their relations already discussed in the previous section.

Another turning point in the relation between Turkey and Iraq was the Arab spring of 2011. Since the onset of the Arab uprisings in 2011, relations between Iraq and Turkey have deteriorated. This deterioration in the relation between them was attributed to Iraq's domestic politics. At the first place, Ankara did not supported Ali Maliki during the election and Turkish government expressed concerns over his policies, which are considered destabilizing for Iraq religious and ethnic variety (Equilibri, 2012: 23). On the other hand, Iraqi government sees the influence of Turkey as interference for its domestic politics. For instance, the accusation of terrorism charge against Sunni Vice President, Tariq Hashimi in 2011, leading to Hashimi's flight from Iraq to Istanbul and his consequent trial and death sentence in absentia directly impacted the relation between Turkey and Iraq as the former consider this act as a sectarian war and the latter see it as meddling in their domestic affairs. Concerning this, it is better to quote the interview given by Wall street journal to Ali Maliki, Iraq prime minister as tensions mounted over the Hashimi crisis in order to indicate the extent to which their bilateral relations affected:

We welcome [Turkey] to cooperate with us economically, and we are open to them, but we do not welcome interference in political matters...Turkey interferes by backing certain political figures and blocs. We have continuously objected to their previous ambassador's involvement in local politics, and

officials have admitted their faults (Hurriyet Daily News, December 14, 2011, as cited in Cagaptay and Evans, 2012: 23).

Furthermore, another contributing factor to the tense relations between Turkey and Iraq particularly after US withdrawal from Iraq was Turkey's apparent rapprochement with the autonomous Kurdish authority in the north, especially with regard to energy and investment fields, which faced strong opposition from Baghdad.

Generally, the diplomatic relation between Turkey and Iraq is full of ups and down in which many interrelated factors contributed for it. In order to bring cooperation on water related issues in the Euphrates-Tigris River basin, the normalization of relations between Turkey and Iraq in non-water issues is a pre-condition.

4.3.3. Syria-Iraq Relations

The relations between Syria and Iraq were believed to be good before 1960's. However, started to deteriorate with the beginning of construction of dams on Euphrates-Tigris River and competing for regional leadership by the two Ba'ath party in both countries. Since the coming to power of Saddam Hussein, both parties claimed to be the leading ideological force in pan-Arabism-competing for Arab legitimacy which makes them to perceive each other as a threat to their survival. These tensions made for an uncooperative climate between the two countries, and combined with the filling of Tabqa Dam in 1974-5, relations soured nearly to the point of full-scale military conflict (MacQuarrie, 2004:28). Eventhough their regimes were similar both structurally and ideologically, there were severe disagreements over political, diplomatic, economic and strategic relations as well as personal rivalry between the leaders which shapes the relations between the two states. Ethno-religious groups dominated the relations between the two Ba'ath regimes despite the ideology of these regimes were believed to move in the same direction. Alawite dominated Ba'ath party in Syria and the Sunni dominated Ba'ath party in Iraq always pursued conflicting policies in the region which was observed in Iran-Iraq war and Gulf war in which Syria did not supported Iraq because the former followed its own political and strategic objectives (Korkutan, 2001:47).

During the 1990s, particularly after the end of Gulf war, Syria and Iraq have normalized relations with each other and jointly criticized Turkey's construction on the GAP project. Amazingly, the GAP united Syria and Iraq, the Gulf war adversaries, in an alliance of convenience. Both countries have been actively seeking support from the Arab League by demanding that Turkey consult with them over water rights.

In recent years, Syrian-Iraqi relations have experienced remarkable developments and the reciprocal visits between the two countries have led to a number of agreements on economic cooperation including an agreement for resuming pumping of oil through the Syrian territories which was suspended in 1982. Even, the Iraq government (led by Shiite) is providing assistance to Assad's regime in the ongoing Syrian crisis. The Syrian opposition argues that there are sectarian roots for Iraq's support of the Syrian regime and that there is a connection between religion and politics in this stance. Iraq's Shiite-dominated leadership is extremely worried about a victory by Sunnis in Syria which is likely to give further impetus for Sunnis to resist the Nouri al-Maliki government in Baghdad given the long borders between the two countries, especially in the Sunni-controlled provinces of Anbar and Nineveh (Assad-Al-Maliki relations available at http://www.global-politics.co.uk/blog/2013/02/10/Iraq_syria_maliki_hd/).

Generally, although both countries share a long boundary and cultural associations, and have been ruled according to a similar Ba'hist ideology to a certain extent, relations between Iraq and Syria have been characterized by mutual suspicion and hostility during much of the last half century. Particularly, water resource issue and the Sunni-Shiite difference between the Syrian regime and that of Iraq since the 1970s was to have serious implications for the relationship between the two countries. Thus, the best rule to remember in Syrian-Iraqi relations is that there are no perpetual friends or perpetual enemies.

4.4. Conflictual Interaction between/among the Riparians of the Euphrates-Tigris River.

Until the early 1960s the relationship between Turkey, Syria and Iraq over Tigris-Euphrates basin utilization was characterized by a relatively harmonious (Kibaroglu, 2008). During this time none of the countries undertook large scale development projects. Population growth and

the resultant need for increased food and energy production pushed the riparians to begin development projects in the 1960s. This in turn increased tensions between them and began continuing conflict over the use of the two Rivers. Since the beginning of large scale development along the Tigris-Euphrates Rivers, development projects have been characterized by their unilateral nature and their focus on the needs, current or projected of each individual state.

The conflict about the use of the water resources in these river basins began in the early 1960s with the large scale Turkish and Syrian irrigation and hydropower projects on the Euphrates and to a lesser extent on the Tigris River. The beginning of the construction of Keban and Tabqa dams in the 1960s on the Euphrates River by Turkey and Syria respectively was one such example. These upstream facilities caused great concern because Iraq was the southernmost riparian state and the major user of the rivers in the basin. Turkey is rich in water resources relative to its neighbours, but with less dependency ratio (1 percent), as compared to 83 and 53 percent for Syria and Iraq, respectively (Biedler, 2004:27). Turkey uses Euphrates-Tigris water for agriculture, for domestic use and for industry. The Euphrates and Tigris Rivers account for nearly half of Turkey's usable surface water and a potentially sizable portion of hydroelectric capability.

Another major source of tension between co-riparian states on the Euphrates and Tigris Rivers has been the construction of the Southeast Anatolia Development Project (GAP) (MacQuarrie, 2004:22). The conflicts between the riparian countries have emphasized Turkey's implementation process for this project, and severe problems have arisen with respect to the principles of water use and further strained relations between the riparians. The detailed explanation about GAP project is presented below.

Syria has built three dams on the Euphrates: the Tabqa dam, the Al-Baqth regulatory dam, and the Tishreen HEP dam. The Tabqa dam was projected to irrigate 640, 000 ha but the schemes were affected by gypsum levels in the soil and by salinity. Thus, the projects have fallen far short of their targets. In Syria irrigation is seen as a means of increasing productivity. It is realized that total food security can never be achieved; relative food security in staple crops is essential. In

spite of Turkey's need, Syria has been using the Asi River since 1961 for irrigated agriculture in the Ghab Valley. There are also small dams constructed to provide electricity for some cities.

The Tabqa dam, which produces 60% of the country's electricity, is not appropriate for local topography since low flows in summer substantially reduce power generation. This naturally leads to power cuts, especially in Aleppo and Damascus.

Iraq has relatively abundant water resources as compared to Syria, but the main problem is water quality. It has had serious problems with water management and soil salinity since the history of Mesopotamia. In Iraq irrigated agriculture consumes the greatest portion of the country's water. Therefore, Iraq fears that its hydraulic projects would be put at risk in the event of substantial reductions in flow from Turkey and Syria (Jongerden, 2010:10). On the other hand, Turkey argues that any temporary shortfalls in Euphrates flow could be compensated to some extent by water from the Tigris. Furthermore, it has been argued that Iraq's water management programme was unrealistic.

Since irrigation is a major water consumer, lack of consensus on irrigable land potential is an important issue for the riparian states concerned. There have been disputes over unilateral exploitation of the Tigris and Euphrates since 1970s which created considerable friction between the riparian states. Iraq accused Syria of storing far more Euphrates water than it required in Lake Assad for political reasons, which led to the destruction of 70% of Iraq's winter crop (Wolf, 2007:34). Iraq continued to accuse Syria of withholding Euphrates waters on several occasions during the drought-prone 1980s.

Another problem came when Turkey decided to proceed with the GAP scheme, which was unacceptable by its downstream neighbours. Although bilateral and multilateral discussions on the water issue have taken place, there was lack of an adequate consultative mechanism. However, in 1982 and 1983 Turkey, Iraq and Syria established a Joint Technical Committee for general project discussion and exchange of hydrological data (MacQuarrie, 2004:28). But the discussion failed to find a solution since competing claims were made by the three riparian countries.

Amidst the previous efforts, serious confrontations occurred between Turkey and its downstream neighbours when Turkey began to divert the Euphrates water in order to fill the Ataturk dam reservoir. The annual flow of the two Rivers to the downstream riparian states decreased as a result of the Turkey's process of filling the Ataturk dam. Syria accused Turkey of damaging the winter crop and interrupting domestic water supplies to Aleppo and said that Turkey did not provide sufficient details about its plans.

Turkey, on the other hand, suspected that the increasingly support that Syria has been giving to guerrilla forces of the Marxist Kurdish Workers Party (PKK), which seeks to establish an independent Kurdish state out of eastern Turkey, was intended to harm Turkish development plans (Biedler, 2004:35). Turkey accused Damascus of violating the 1987 protocol on security and not ending its support to the PKK. Turkey asserted that as long as Syria stopped support to the PKK, it would be willing to participate in joint hydrological prospects and continue to regularize exchanges of hydrological data.

Iraq maintains that it has 'Acquired Rights' relating to its 'ancestral irrigation' from the Euphrates and Tigris Rivers. One scholar, for example, argues that for thousands of years these Rivers have given life to the inhabitants of Mesopotamia and thus constitutes an acquired right for this people (Zeitoun and Warner, 2006:37). Therefore, no upstream riparian country is entitled to take away the rights of these inhabitants. The second dimension of these Acquired Rights stems from the existing irrigation and water installations. Iraq has 1.9 million hectares of agricultural land in the Euphrates basin.

Iraq accused Turkey of violating international law by not informing Baghdad in a timely manner and by reducing the amount of flow below the agreed level. Thus, Iraqis have been subjected to a very difficult situation as a result of these actions. In addition to that, Turkey will cause damage to the downstream riparian states, by building new dams and irrigation systems.

4.4.1. The South East Anatolia Development Project/ GAP/

As already stated this project is one of the major causes for the tension between the co-riparian states of the Euphrates-Tigris River basin. GAP is a major hydro-electric and irrigation scheme that was first conceived of and began to take shape in the 1930s as part of Mustafa Kemal Ataturk's vision of modern Turkey (Biedler, 2004:15). This vision later combined in the 1970's

in comprehensive water and land resource development package. The project directly encompasses nine provinces in the southern region of Turkey (Anatolia) covering an area of 75,358 km², or 10 percent of Turkey: Adiyaman, Diyarbakir, Gaziantep, Mardin, Sanliurfa (Urfa), Siirt, Sirnak, Kilis and Batman (Kurdish Herald, 2009:7) (see map 4.1) and Turkey's State Hydraulic Works describes it as a truly "integrated, multi-sectoral" development project, comprising 13 major projects (seven on the Euphrates and six on the Tigris), designed for hydropower generation and irrigation (Wilson, 2012:18). Structurally, GAP would include 22 dams, 25 irrigation projects and 19 hydro-electric power plants which are located on Euphrates-Tigris River and its tributaries.

It is also framed as a regional development programme that aims to improve the socio-economic standards of Southeast Anatolia region of Kurdish province. Thus, the special emphasis of this project is priority for the economic, social and cultural advancement of and the wellbeing of the whole country in general and of the people of the region in the particular. Within this context, Kibaroglu (2004:17) stated the basic objective of the GAP as follows: to remove the interregional disparities in the country by alleviating conditions of abject poverty and raising the income levels and living standards in the region; to enhance productivity and employment opportunities in rural areas and to improve the population absorbing capacity of larger cities.

Map 4.1: The GAP Region of Southern Anatolia



Source: MacQuarrie, 2004

However, the construction of the GAP by Turkey has been a major source of tension between co-riparians of the Euphrates and Tigris rivers. As the largest water resources development project in the region, GAP has caused considerable anxiety to Turkey's downstream neighbors, Syria and Iraq, who claim that the project will lead to reduced river flows and leave little water for use in their countries' agricultural and energy projects. Iraq and Syria also fear that once completed Turkey will have the ability to use water as a weapon against them by reducing or completely stopping the flow of the Euphrates-Tigris River at will (Warner, 2005:181). For this reason, both Syria and Iraq continue to protest the completion of the GAP project and have repeatedly called on international investors to stop funding it because of the negative effects it would have on both of the downstream riparians. To this end, "Syria has successful in blocking international investments in GAP from 1993-2002 by appealing to European export credit agencies and the World Bank. Such efforts have resulted in the withdrawal of several private and public European investors" (Dinar, 2009:19). As a result, Turkish government extended the completion date of the project back to 2047 which should have been completed by 2010.

On the other hand, the position of Turkey on this issue is little bit contradictory. Firstly, Turkey claims that the Dams constructed under GAP will benefit its downstream co-riparians as droughts and premature flooding can be prevented as a result of better regulation and better timing would lead to more productive farming as well (Warner, 2005:185). The second controversial position of Turkey is that they are entitled to undisputed right to the use of water within its territory without the permission of other riparians, in the same way the Arab states regard oil as a natural resource which is subject only to their sovereignty. This Turkish position was made very clear when former Turkish President Suleyman Demirel stated:

"Neither Syria nor Iraq can lay claim to Turkey's rivers any more than Ankara could claim their oil; this is a matter of sovereignty, we have the right to do anything we like. The water resources are Turkey's, the oil resources are theirs. We don't say we share their oil resources, and they cannot say they share our water resources" (as cited in Wilson, 2012:19).

These two positions of Turkish government contradict each other. Despite the fact that Iraq and Syria's protests against the Gap project, there was no evidence indicating that whether the

construction of these dams affect the downstream states or not and this needs further investigation to identify it which requires the cooperation of the three riparians.

4.5. Significant Developments in Water Relations Since 2000

4.5.1. GAP-GOLD Protocol between Turkey and Syria

There was a cooperative effort between Turkey and Syria on Euphrates-Tigris water utilization after a signing of Adana protocol of 1998. As a result, a Joint Communiqué was signed between the Syrian General Organization for land development /GOLD/ and the Turkey's Regional Development Administration /GAP RDA/ on 23 August 2001(Akanda et.al, 2007:17). As stated by Kibaroglu (2008:26) the GAP-GOLD cooperation is based on the common understanding of promoting sustainable development of region's land and water resources through joint programs. This agreement envisions the cooperation of the two sides in such areas as training, study missions, technology exchange and conduct of joint projects and intends to improve the relations between the two countries further, through training of staff from both countries, by hosting specialists from Syria in Turkey specific training activities. However, it had its own limitation i.e. it only included Turkey and Syria. For this reason, it is impossible think that any bilateral treaty that exclude, Iraq, are sustainable and will succeed in fostering a basin-wide cooperation.

4.5.2. The Euphrates-Tigris Initiative for Cooperation (ETIC)

Another cooperation effort concerning the Euphrates-Tigris Rivers was ETIC. Unlike the GAP-GOLD which excludes Iraq, this initiative includes all the riparians of the Euphrates Tigris basin. ETIC was an initiative formally established in 2005 by academicians from Turkey, Syria and Iraq with the support of American and Turkish universities as well as UNESCO (Global Strategy Institute, 2005:10). This initiative aims to provide cooperative atmosphere in the fields of technical, social and economically sustainable development within the Euphrates-Tigris region. On the other hand, Kibaroglu stated the exceptionality of ETIC as follows:

ETIC has been exceptional in that its goals are beyond water rights since it includes issues related to human security such as gender equity, environmental protection, water governance and grassroots participation (2008: 162).

Thus, ETIC adopts a holistic, development focused, multi-sectoral approach as opposed to one aiming at sharing the river flow since latter has proven to be divisive and unproductive. In other words, it does not promote a certain model of cooperation or a formula of water sharing. Further, ETIC frames itself as voluntary, non-binding, unofficial and non-governmental entity (Islar and Ramasar, 2009:21). Despite the fact ETIC adopted a holistic view of the river basin with a cooperative understanding of water governance, it disregarded the political boundaries and the role of state politics and decision makers.

CHAPTER FIVE

5. COMPARATIVE ANALYSIS OF THE CHALLENGES TO COOPERATIVE EFFORTS OF THE NILE AND EUPHRATES-TIGRIS BASINS.

This chapter provides a comparative analysis of the factors hindering cooperation in the Nile and Euphrates-Tigris River basins. There are several factors which is hindering genuine cooperation between the riparian States of the two river basins. The main factors are the following : unbalanced nature of Riparian water contribution and benefit accrued, Colonial legacy, Non-water issue/issue linkages/ as a factor to decelerate water cooperation, absence of NGO involvement and public participation, adherence to conflicting international law doctrines, weak legal and Institutional mechanisms, and Power asymmetry between the riparians. The last section of the chapter is a concluding remark based on the major findings.

5.1. The Comparative Analysis of the Challenges to Cooperation in the Nile and Euphrates-Tigris basins.

5.1.1. The Unbalanced Nature of Water Contribution and Benefit Accrued between the Riparian States.

Theoretically speaking, riparian water contribution and the benefit that may be gained should be proportional unless the obvious result is that it leads to disagreement between the States concerned which inhibit the cooperative environment in the basin. In the case of the Nile basin, Ethiopia (the upstream country) contributes almost all (86%)⁴ to the Nile River, but the country's utilization from the Nile River is less than five percent(5%) until recently without including the Grand Ethiopian Renaissance Dam/hydro electric project/ which is being constructed on the Blue Nile. Paradoxically, Egypt and Sudan, the two downstream countries, without any contribution to the river has been utilizing lion share from the river. This inequality in water contribution and utilization pattern between the up and down stream riparians has been a source of tension and disagreement which decelerate the cooperative atmosphere in the Nile basin. Thus, one of the

⁴ see table 3.1

characteristic feature of the Nile basin is that the downstream states/Egypt and Sudan/ dominated the Nile politics and utilization without any water contribution.

On the other hand, in the case of the Euphrates-Tigris river basin, Turkey, the upstream country in the basin, contributes a large share (78%)⁵ to the Euphrates-Tigris river basin, and the rest is contributed by Iran (13%), Iraq (8%) and Syria (0.5%). In terms of utilization, Turkey took the lion share. When compared to the Nile basin, the issue of proportionality of water contribution and utilization is not this much paradox. Turkey's dominance in the politics and water utilization of the basin can be argued for by its large water contribution and its sovereign right to utilize its water within its own territory. In other words, Turkish claim of monopoly in the Euphrates-Tigris River may be a rational policy in the sense that Turkey contributes more than 75 % to the basin.

What is the rationality behind the monopolization of the utilization of Nile water for Egypt and Sudan, other things remain constant? The justifications always provided by Egypt and Sudan for their domination was/is the old fashioned 'acquired right', aridity of climate particularly for the former and presence of rain water in the upstream countries, particularly in Ethiopia. Egypt's climate aridity/desert and the presence of rain water in Ethiopia cannot be a genuine reason for Egypt to monopolize Nile water utilization. Or the presence of rain water in Ethiopia can't prevent it from utilizing its own water resources. Ethiopia never thought Nile water monopolization in history despite its 86% water contribution to the basin. Ethiopia's position on the Nile River starting from the colonial period is equitable utilization with its fellow riparians. Generally, justifications given by Turkey for claiming water monopolization/ receiving large amount of water from the Euphrates-Tigris river basin was/is little bit convincing in principle. But, Egypt's justification by any means is not convincing and acceptable. My point here is not arguing for Turkish dominance rather its position on the water utilization has some sort of rationality. However, the justification provided by Egypt and Sudan for their monopolization of the basins' resource lacks integrity and moral consideration and does not go with the thinking of twenty first century. Thus, Egypt and Sudan's arrogant thinking and sticking to maintain the status quo to preserve their dominance was/is the main factors which slow down the cooperative

⁵ See table 3.2

effort in the Nile basin despite progress is being made by Nile Basin Initiative through the current cooperative framework agreement.

5.1.2. The Role of Colonial Legacy in the Nile and Euphrates-Tigris River Basins

The colonial powers have played paramount roles in exacerbating the water tensions both in the Nile and Euphrates-Tigris River basins even if their degree differs in hindering the cooperative efforts. The impacts of colonialism are great in fueling tensions between up and down stream riparians of the Nile basin till today. That is why Terje Tvedt (2004:22) as cited in Oestigaard, (2012) once upon time said ‘the legacy of the colonial period is still relevant and still has an impact’ in the Nile basin. Tvedt further argued the role of colonial legacy on the current cooperative efforts through the past agreements of the 1929 and 1959 in the following words:

In order to understand the background to the 1929 and 1959 agreements, and consequently the disagreements about the Cooperative Framework Agreement, one has to turn to the colonial era because ‘in the Nile basin the past is in the present and the present in the past, but nobody can escape the impact of the Nile’s power and its history’ (Tvedt, 2004 as cited in Oestigaard, 2012: 34).

Thus, from Tvedt explanation, it is easily understood that the current tension in the Nile basin is the result of the historical development of the colonial period. Britain, Italy and France were the colonial powers who took presence in the Nile basin during the 19th and early 20th centuries and the role of Great Britain was enormous more than the two countries in playing the ‘allocator’ position in water sharing process for her colonial subjects or to protect its colonial economic interests. British colonialism wanted to secure its interest in the Nile to ensure the production and export of cotton for its industries in England. To this effect, the British concluded various agreements with those states of the Nile under their control to secure the unhampered flow of water to Egypt and Sudan making the former the ultimate beneficiary.

Kibaroglu better argued that:

The colonial regimes directed water management development towards serving their own strategic objectives as expressed, for example, in the suppression of industrialization and expansion of cotton-grown areas in Sudan and Egypt along with the associated irrigation measures (Kibaroglu, 2007: 148).

Generally, the architect behind the 1929 and 1959 agreement, which was entirely exclusive and bilateral, and did not take into consideration the needs or riparian rights of upstream Nile Basin nations, was British. The deliberate exclusion of Ethiopia from the 1929 agreement was done by the British with the aim of denying Ethiopia's right to utilization to its own water resources in order to fulfill their dreams of colonial economic interest over the Nile River. Ethiopia's response to the colonial agreement was/is that she has a right to utilize its own resources within its own territory when her economy would allow doing it since Ethiopia was not a party to either of the agreements.

Regarding the colonial legacy in the Euphrates-Tigris River basins, the situation was little bit different compared to the Nile basin. This means despite different agreements⁶ signed by colonial powers/ Britain and France, the then mandatory powers /on water related issues, the roles played by these agreements in inhibiting cooperative spirit was not this much directly visible rather their impact was indirectly evident in straining riparian relations. Said in other words, the roles played by the colonial powers in creating stateless ethnic group particularly- the Kurds⁷ in the Middle East was a factor which creates tensions and mistrust between the riparians of the Euphrates-Tigris River basin since the Kurds are found in the three riparian countries of Turkey, Iraq and Syria. That is why Jeroen Warner (2005:190) argued that "the scope of conflict in the Euphrates-Tigris River basins cannot be really grasped without taking the colonial legacy into account". Warner further argued the role of colonial powers in the basin as:

When the French and English laid down the current Turkish boundaries at San Remo-blithely ignoring the natural boundaries and denying the Kurds their nation state –they laid the basis for many current resource conflicts in the region (Warner, 2005: 193).

In addition, the other colonial legacy which created tense relations between Turkey and Syria was/is the province of Hatay/Iskenderun⁸; found in southern Turkey, a province which France, the then mandatory power, gave it to Turkey as a carrot to enter the Second World War on the

⁶ These agreements are already discussed in the previous chapters

⁷ The Lausanne treaty of 1923 gave birth to the first Turkish Republic, an indivisible, unitary state in which the Kurdish formally didn't exist. See about this treaty in the previous section.

⁸ See about this under the section 'Turkey-Syrian relation' in the earlier part.

side of allies. This factor makes difficult the relation between the two countries and subsequently inhibits the cooperative spirit of water related issues.

Generally speaking, despite the fact that the colonial legacy was strong in the Nile basin and less in the Euphrates-Tigris River basin on water related issues, the Nile basin riparian states are more approaching to create cooperative spirit on water utilization than the Euphrates-Tigris River basin. The evidence for this is a creation of NBI and the ongoing signature of Cooperative Framework Agreement by more than half of the riparian states of the basin. In case of the latter, even if there are ongoing cooperative efforts are being made by the riparians, no tangible progress has been observed except the creation of Euphrates-Tigris Initiative for Cooperation/ETIC/ which is a non-governmental body working to bring different stakeholders in the basin to enhance the cooperative endeavor between the riparian states.

5.1.3. Non-water Issue/Issue Linkages/ as a Factor to Decelerate Water Cooperation

Non-water issues are issues that are not related to water but indirectly inhibit the cooperative environment particularly through straining the relations between the riparian states. These issues may be social, political or economic which they thought is important for their national interest. These issues are common both in the Nile and Euphrates-Tigris basins in pulling the riparian states far apart instead of bringing them to gether. The habit of sponsoring one another's opposition and the issue of disputed territory in both basins were/are important non-water issues which have been responsible for creating thorny relations between the riparians of the two basins.

In the Nile basin the habit of sponsoring one another's anti-state political groups was a common feature of the relations between Egypt and Ethiopia, Sudan and Ethiopia, and Egypt and Sudan. Egypt's support of Eritrean Liberation Front /ELF/ and Muslim Somalia against Ethiopia's sovereignty throughout the 1960's and 70's was considered as a factor that impeded the relations between the two countries over water issues in particular and in other areas in general. Worst of all, Egypt has been supporting Eritrea against Ethiopia till recently. This can be evidenced from

the Ethio-Eritrean war of 1998-2000 in which Egyptian made weapons was smuggling towards Eritrea.

Ethiopia and Sudan was also not exceptional in this regard. The Khartoum government harbored and has been rendering support to TPLF and EPLF against Mengistu's regime and Mengistu retaliate it by supporting SPLA against the Sudan. This tit-for-tat policy of the two states resulted in the independence of Eritrea and South Sudan from Ethiopia and Sudan respectively. Thus, the policy of supporting one another's opposition forces created mutual suspicion and distrust between the two countries and this makes the cooperation over water more difficult.

The case of Sudan and Egypt was also important in sponsoring and supporting the opposition forces of each other. Particularly, the Egyptian interference in Sudanese internal politics was resulted from the fear that if the government unfriendly to Egypt comes to power in Sudan, the position of the Sudan on Nile water may be changed which is not good for Egyptians. In addition to this, there was a tension between them on the disputed territory of 'Halaib triangle'⁹. Despite the relation between Egypt and Sudan was almost positive on water issues, these two factors determine the interaction between them in other areas.

On the other hand, the practice of sponsoring each other's opposition forces in the riparians of the Euphrates-Tigris basin was also a familiar problem that exacerbates the water related tensions. The issues of the Kurds and the disputed territory of Hatay/Iskenderun province between Turkey and Syria could be mentioned in this regard. Especially, the Kurds issue was/is a common problem for Turkey, Syria and Iraq since the Kurds reside in all these three countries. The relations between Turkey, Syria and Iraq depends on the conditions of Kurds treatment in the three countries since problem in one country have a domino effect on other countries and indirectly these problem also have a spillover effect on the cooperative efforts in water sector. Thus, the point here is that even if the problem of supporting each other's opposition was a common problem for both the Nile and Euphrates-Tigris basins in affecting the cooperative spirit of the riparians, its degree of affecting it is not equal in both basins. In case of the Nile basin, this problem is not currently visible since South Sudan and Eritrea already got their independence. In line with this, the Nile basin cooperation effort is progressing towards a fully fledged

⁹ See about this under the section 'Egypt-Sudanese relations' for further information.

cooperation. On the contrary, in the Euphrates-Tigris basin the problem of Kurds is still a hot issue in the Middle East in general and between the riparian states of the Euphrates-Tigris in particular. What matter most in this regard is that the downstream states of Syria and Iraq used the Kurd issue as a political weapon against the upstream Turkey in order to increase their negotiating power over water issue. Particularly, Syria has been used this incidence many times against Turkey. In this regard, it is important to quote what Korkutan (2001) said: “Syria has used the support for the PKK as a bargaining chip in its disputes with Turkey over the Euphrates River hoping to induce Turkey to release additional waters toward Syria”.

Therefore, the issue of the Kurds ethnic group is the most important factors till today in determining the cooperative efforts of the riparians of the Euphrates-Tigris basin. Thus, the influence of non-water issue is still strong in the Euphrates-Tigris basin in decreasing the riparian commitment for cooperation compared to the Nile basin.

5.1.4. Absence of NGO/CSO Involvement and Public Participation in the Cooperative Efforts of the Nile and Euphrates-Tigris Basins

Without CSO/NGO participation in the cooperative efforts of shared river basins in general and the Nile and Euphrates-Tigris in particular, it is difficult to fully realize the cooperative attempts between the riparian states. In the case of the Nile and Euphrates-Tigris rivers, the participation of NGOs are almost absent. The absence of NGOs in these two river basins have been attributed to the disagreement between the riparians particularly with the latter in which there are total exclusion of NGOs/CSOs until today. In the case of the Former, at least the riparians formally recognized the importance of NGO and civil society in the ‘NGO and civil society discourse statement’ in which the representatives of Nile Basin NGOs maintain that civil society needs to be partners to the NBI. However, despite riparian formal recognition on paper, their practice on the ground is still not this much observable. Probably that is why Shema (2009), attributed the weakness of NBI to the absence of civil society participation in its decision making processes. Shema further argued that ‘the formation of the Nile Basin Society (NBS)¹⁰ in 2001 is the

¹⁰ The NBS is a Canadian based non-profit organization that is independent of the NBI which works to empower people and facilitate real involvement by NGOs.

evidence of the lack of civil society participation, a factor which may improve prospects for long term successes. In case of Euphrates-Tigris River the importance of NGO/CSOs in promoting cooperation is not recognized even on paper by the riparian states. This is due to disagreement between the riparian states of the basin.

5.1.5. Unilateral Water Development Activities in the Nile and Euphrates-Tigris River Basins

The assumption here is that, the absence of unilateralism in shared river basins is an indicator of cooperation and consensus and the prevalence of unilateralism is an indicator of conflict and political discord. Within this context, unilateral water development is one of the factors which inhibit the cooperative efforts of shared river basins between the riparian states concerned. The absence of a basin wide agreement on the utilization and development of the water resources can lead states to unilateral development projects. The increasing demand for water resulting from population growth and the need to mitigate poverty is a factor which forces the riparians to unilateralism. The implication of unilateralism is that it prevents sustainable use and development of water in integrated and harmonized manner. In addition to this, it may impinge on already strained riparian relations. Regarding the Nile and Euphrates-Tigris river basins, unilateral water development project is the real problem in the cooperative efforts of the riparian states till present day.

In case of the Nile basin, unilateral water utilization by Egypt was started by the Great Britain, the then colonial master of Egypt during the 1890s with the inception of Old Aswan High dam in 1892 which was designed to provide flood protection and over year water storage. Additionally, Britain constructed a series of barrages and small dams at Asyut (1902), Zifta (1903), Esna (1909), Nag Hammadi (1930), and Edfina (1951) and brought large tracts of land under cultivation in their Egyptian and Sudanese colonies including the enormous Gezira Cotton Scheme (Tafesse, 2002:32). Egypt completed the construction of Aswan High Dam in the 1970s with the support of the Soviet Union (Cascao, 2009:27) after their independence from British colonial rule. This project is considered ‘unsustainable’ by some scholars (for example, Kebrom,

2011) for the reason that considerable amount of water is lost through evaporation every year. Therefore, all the infrastructural development in the Nile basin built by Egypt during and after colonial era is a unilateral activity. Even Egypt did not consult the Sudan on any project built on the Nile River after her independence from Britain colonial rule despite they signed a water sharing agreement with each other in 1959.

On the other hand, Britain followed the same policy on her Sudanese colony. Therefore, Britain unilaterally constructed two dams in their Sudanese colony, the Sennar in 1925 and the Jebel Aulia in 1937. The former served the dual purposes of providing irrigation waters to feed the large and highly profitable Gezira cotton scheme and providing water storage for Egypt while the latter designed to provide Egypt and Sudan with water storage. Generally, it is possible to say that Britain unilaterally embarked a hydrologic mission to expand irrigated agriculture and control the flow of Nile waters to Egypt.

The Ethiopian case is also similar to the policy of Egypt and Sudan, but the role of colonial powers was not present in the construction of water projects since Ethiopia never colonized except the five year Italian interlude. Ethiopia, on her part constructed small dams on the Blue Nile and Tekeze/Atbara, the two tributaries of the Nile River. These are: Tana-Beles hydropower project/ irrigation which is located on the Beles River and Lake Tana, tributaries of the Blue Nile River, Fincha hydropower plant on the Blue Nile, and Tekeze hydropower project on Tekeze/Atbara River. The last two projects were constructed with a fund from the Chinese government. Another Ethiopian hydro power project is the GERD, which its construction is going on currently. This is an Ethiopian project launched after the signing of CFA and it is one indicator of unilateralism in the Nile basin. Since CFA is not signed by some countries, particularly Egypt and Sudan, Ethiopia also resorted to unilateral measures within its own territory. The current tension between Ethiopia and Egypt is attributed to launching of GERD by Ethiopian government. The downstream states, particularly, Egyptians disappointed with this project fearing that it reduces the amounts of water that reach their country. In order to reduce their concern, the Ethiopian government established an International Panel of Experts (IPE) led by the representatives from Ethiopia, Sudan and Egypt and to investigate whether the project significantly harm them or not (A week in the Horn, 2013:10). To this end, the IPE proved that GERD have no negative impact on the downstream states. This is one important incident in the

Nile basin cooperative effort and no country in the history of shared rivers allowed this kind of investigation by IPE except Ethiopia. This shows Ethiopia's commitment in believing the Nile water as a common resource to be utilized together.

Unilateralism is also a common characteristic feature of the riparian states of the Euphrates-Tigris River basin. The tensions between the riparian states of the Euphrates-Tigris River basin were started in the 1960s with the beginning of unilateral construction of dams by respective states within their own jurisdiction. Turkey, Syria and Iraq are in a state of conflict bearing in mind that a conflict over shared rivers exists when one or more riparians act unilaterally to use and develop the river's resources and when this exploitation is contested by the other riparians who are negatively impacted by the unilateral actions.

Iraq has been using the Euphrates River since the ancient times, and the ancient irrigation systems were common as a part of Mesopotamian civilizations. The most common infrastructure developed by Iraq on Euphrates River are: the Haditha Dam, the Bagdadi Dam, the Ramadi Barrage, the Hindiya Barrage, the Fallouja Dam, and the Hammurabi Dam. The Haditha Dam is used for hydroelectric production, and the others either regulate the river or divert water to irrigation canals (SIWI, 2012:8). Mosul 1 & 2, Sammarra, Derbendekan, Dokan and Hamrin were the dams constructed over the Tigris River by Iraq government (ibid). The Mosul 1 & 2 dams are used for hydropower production, irrigation, and flood control. Sammarra dam regulate the river with limited irrigation responsibilities. The other remaining dams are used for hydro electric power. The point here is that all these dams and barrages were unilaterally constructed by Iraq without consulting any of the remaining riparians.

Historically, the local peoples of Syria used Euphrates River for agricultural needs and Syria is a second country in utilizing the Euphrates and Tigris River since ancient time. However, the constructions of dams were started only since 1950s. Syria's unilateral move was begun with the construction of the Tabqa dam over the Euphrates River which completed in 1975. The Tabqa dam project was meant to generate hydropower and provide water for irrigation to the surrounding Syrian cities. The other infrastructures developed by Syria over the same River were the Al-Baqth regulatory dam, and the Tishreen HEP dam (MacQuarrie, 2004:41). The Tigris River only contributes to the Syrian demands on local and private land owner's small scale

agricultural and sanitary needs, but there are certain projects that have been evaluated by the Syrian government on future use of the river's waters (ibid). Thus, all these infrastructures built by Syria are unilateral activities.

The other riparian country of the basin which followed unilateral policy is Turkey. Turkey's unilateral activities were started by the construction of Keban dam completed in 1973. The other dams currently operational on the Euphrates River are Karakaya, Ataturk, Birecik, and Karkamis. From these, the Ataturk, Birecik, and Karakamis dams are going to be an integral part of the GAP while the Keban and Karakaya dams were designed primarily for hydroelectric power production (SIWI, 2012:13). The Turkish government is currently developing an extensive hydroelectric production over Tigris River particularly as integral part of GAP¹¹. This is one of the controversial projects being constructed by Turkey unilaterally and can be considered as a sources of tensions between the riparians because this project is unacceptable by the downstream states of Syria and Iraq.

5.1.6. Adherence to Conflicting International Water Law Doctrines

The existence of adherence to conflicting international water law doctrines in one shared River basin can decelerate the cooperative efforts between the riparians. Within this context, conflicting adherence to international water law doctrines is a common characteristic of the riparian states of the Nile and Euphrates-Tigris rivers and has been source of tensions between the riparian states.

In case of the Nile basin, as already discussed, from Nile basin Riparians Rwanda and Ethiopia supported doctrines of absolute territorial sovereignty (Harmon doctrine) arguing that they have absolute right to water flowing within their own jurisdiction while the downstream countries of Egypt and Sudan claim to the doctrines of absolute territorial integrity which is totally opposite to the Harmon doctrines arguing that they have the right to receive uninterrupted flow of water coming from upstream states. In other words, upstream nations cannot do anything that affect water quantity and quality reaching their countries. In addition to this, the other doctrines that is

¹¹GAP is the biggest development project ever being undertaken by Turkey, and one of the biggest in its kind in the world. See the section 'The Southeast Anatolia Development project/GAP/' discussed above.

usually claimed by Egypt is the ‘prior appropriation’ that argued the state that puts the water to use first, thereby protecting those uses which existed prior in time. Egypt strictly adhered to ‘prior use’ principle because Egypt has been using the Nile water since the period of antiquity. Despite the existence of contrary position in the Nile basin, the riparian states are struggling to bring consensus on Nile water utilization between them since 1999. The NBI is an institution established with a mandate to create cooperation between the Nile riparian states.

Similarly within the Euphrates-Tigris River basin, we can easily observe the prevalence of diverging adherence to different doctrines of international water law. For instance, upstream Turkey has been arguing in favor of absolute territorial sovereignty/Harmon doctrines/ while Syria and Iraq claims absolute territorial integrity over Euphrates-Tigris River in reference to its historical water right. The other doctrines has been claimed by Syria and Iraq over Euphrates-Tigris River utilization is ‘acquired right’ or ‘prior use’ like Egypt and Sudan in the Nile case. Syria and Iraq have argued that they have an ‘acquired right’ relating its ancestral irrigations over the Euphrates-Tigris River (Sagsen, 2006:47). In addition, Warner (2005:187) stated the Syrian and Iraq’s claim of ‘acquired right’ in the paragraph below:

Syria and Iraq have similar arguments on the dispute in the Euphrates-Tigris River based on the acquired rights of the two countries and the inhabitants living in this basin were practicing irrigation from the antique and Mesopotamian periods and therefore, no upstream riparian country is entitled to take the rights of these people (Warner, 2005: 198).

It can be easily understood from this paragraph that how much they were concerned in defending this right. Thus, the diverging position between the riparians of the Nile and Euphrates-Tigris is one of the factors which have been impeding the cooperative efforts. The point here is that compared to the Nile basin, the riparian states of the Euphrates-Tigris River are very far apart in reducing their difference of position because the Joint Technical Committee/JTC/ an institutional forum established by the three countries is proved unproductive as parties were unwilling to find compromises, mostly because the riparian states were too rigid in their views and positions (MPI, 2012:15). In other words, JTC stopped its function because of low political commitment on the part of the riparians.

5.1.7. The Existence of Weak Institutional Mechanism: the NBI versus JTC

It is well known that the role of institutions in the management of shared watercourses is enormous. The absence/weakness of institutional mechanism in shared River basins has a potential to lead the riparian states to resort to unilateral water development plans. The prevalence of unilateral water development in the Nile and Euphrates-Tigris River basins were attributed to the existence of weak institutional mechanism. The presences of strong institutions also facilitate effective conflict management system between the riparian states.

As already discussed, in the Nile basin since the 1960s several cooperative institutions like Hydromet (1967), Undugu (1983) and TECCONILE (1992) have been established. However, the achievements of these institutions have been limited because they did not include all riparian states and have focused on technical matters.

In the 1990s, all Nile Basin states committed to establishing a multilateral cooperative institution that would also address legal issues (Cascao, 2009:18). Thus, NBI was established in 1999 by the council of ministers of riparian states. Despite the fact that NBI was a strong departure from its predecessors in terms of its goals and inclusiveness, it is not without limitations. At the first place, the issue of water allocation is not a point of discussion under NBI. In view of this, Kang'ethe (2012:26) argued that NBI postponed the most burning controversial issues of water allotment especially between Egypt, Sudan and Ethiopia. He further argued that since it has failed to bring together the political leadership of the riparian countries to address this controversial issue, it is even referred to as “a water ministers’ club”. In addition, (Shema, 2009:32) expressed the weakness of NBI as “it is not a secret that the unwritten but real strategy of the NBI is to secure the consensus of all the riparian countries on the less controversial issues by postponing the key but difficult issues of the Nile to a future date”.

The other problem which shows the weakness of the NBI is its dependence on external donors for funding the proposed projects. It has no its own sources of funds. The failure of the Nile basin states to create consensus on water utilization adversely affected the development within the basin by creating shortage of funds. Due to this, under the current structure of the NBI,

individual countries cannot secure funding for projects and development without the consensus of the entire basin (Shema, 2009:34). Therefore, Nile Basin Initiative failed to convince the riparian states in order to create consensus between them. Apart from this, the Nile Basin Initiative was created with the aim of forming a permanent commission within three years time. However, after fifteen years, the countries of the NBI have failed to agree on a formalized legal agreement to form such a body. This particular failure was a result of the difficulties associated with creating consensus between a diversified interests and needs of the riparian states.

The most important institutional forum for the Euphrates-Tigris riparian countries is the Joint Technical Committee (JTC), a body originally set up in 1980 for discussing the water issues between Turkey and Iraq and Syria joined the JTC in 1983. As already stated, despite the fact that the role of the JTC was not underestimated, it has failed to fulfill its goals and the talks become deadlocked. In other words, due to its weak mandate, the Joint Technical Committee (JTC) has so far failed to induce the riparians to manage the river cooperatively. Zawahri (2009:39) stated that “the committee lacked any ability to monitor the development of the shared rivers and as a result there was no capacity to either confirm the accuracy of the exchanged data or detect potential cheating.” Generally speaking, since the riparians were too rigid in their views and positions the JTC became fruitless.

The major difference between the two institutions is that in case of NBI all riparians have agreed in principle to the importance of the institutions in managing the Nile River basin and its role in realizing the equitable utilization and common benefit from the resources. In line with, NBI has established multiple cooperative projects on the ground in the last decade. In parallel, a negotiation process towards a new Cooperative Framework Agreement (CFA) was initiated with the aim of establishing Nile River Basin Commission as its final goal. Thus, in NBI at least we observe some progress in its activities. Coming to the JTC of the Euphrates-Tigris basin, no progress can be observed in its activities except it serves as a forum of discussion and communication between the riparians. The JTC negotiation process seems superficial rather than genuine. After 16 technical and two ministerial meetings, no agreement was reached and the JTC discontinued its meeting (Kibaroglu, 2008:24). Said in other words, unlike the NBI which is presently working as provisional institution, the JTC is currently stopped its function and became

stagnant because of disagreement over the extent of the mandate of the committee. Therefore, the NBI is more successful in creating cooperative spirit between the riparians than the JTC.

5.1.8. The Imbalances of Power Distribution between the Riparians

Since decision making in shared rivers basins cooperation is a political process, it is influenced by asymmetries in power. In other words, the power relations between states sharing a river basin have a major influence on the nature of interactions between states and the outcome of competition for water resources (Zeitoun & Warner, 2006:30). Within this context, both the Nile and the Tigris-Euphrates basins are characterized by a power asymmetry between the riparians. The difference here is that in case of the Nile basin, the downstream riparians of Egypt and Sudan have been dominating the water resources utilization despite the fact that the River passes through the then ten countries and 86% originate from Ethiopia while in the Euphrates-Tigris case up stream Turkey is the dominant geopolitical power. Particularly in the Nile basin, Egypt has managed to use and control the water of the Nile asymmetrically; sometimes by using military force to secure her historical water share and at other times by upholding the colonial agreements as binding legal documents. The colonial agreements, along with Egypt's military power and economic advancement, have played a major role in attaining and maintaining the hydro-hegemonic position of Egypt (Jacoby, 2008:36) in the region for the last 82 years. Egypt's hydro-hegemony was established first by British colonists in the 1929 and 1959 agreements, and later by the Soviet Union during the Aswan High Dam Construction. Egypt had been considering itself as the guardian of the Nile; and without her prior approval it had been impossible to take any development projects on the Nile River. In addition to this, Egypt by using its hegemonic power had also successfully blocked project funds from the world financial institutions and donor countries to the upper riparian countries, particularly Ethiopia (Cascao, 2009:26).

Turkey possessed hegemonic power in the Euphrates-Tigris River due to its geographic upstream position as well as advanced military and economic resources. In other words, Turkey has the environmental advantage of being the upper riparian and it is the region's strongest economic and political power. Because of this Turkey can easily take the desired amount of water without a huge struggle. Despite its advantageous in power and position, Turkish commitment towards cooperative utilization of the Euphrates-Tigris River is positive in many ways. This can be

observed in the Turkish proposal of three stage plans for Optimum, Equitable and Reasonable Utilization which was rejected by the downstream states of Syria and Iraq. Ankara's role in the establishment of Joint Technical Committee and its subsequent meetings were also indicates its belief in cooperative utilization. However, this does not mean that Turkish government was/is refraining from unilateral utilization of Euphrates-Tigris River. Turkish resort to unilateral water utilization emanated from down streams' reluctance to accept the two rivers as a single and they consider the River it as 'Arab waters' (Warner, 2005:187). Generally, one can argue that Turkey will remain the riparian hegemon for a long time to come, because of their structural power and their dominant river position. On the contrary, the current situation in the Nile basin seems a shift in power politics from hydro-hegemony to multi-lateral approach. This shift in power politics first started with the establishment of NBI and later become realized with the signing of CFA by upstream states. The current geopolitical changes in the Nile basin also favor upstream states. These geopolitical changes which favor the upstream states include: the partition of Sudan into South and North which weakened Sudan and (thus Egypt) in the Horn of Africa. The weakening of Sudan has shifted the balance of power in favor of upstream states. In addition, the crisis in Darfur and the international isolation of the Sudanese president¹² has significantly limited Khartoum's ability to maneuver in the Nile conflict. The other factor which changed the political landscape of the Nile basin in favor of upstream states is the domestic political crisis of Egypt. This resulted in the weakening of Egypt's political weight in the horn of Africa. Finally, The Chinese involvement in the Nile River basin has been creating a steady shift in power balance from unipolarity to multipolarity. China is financing and offering experts for dam construction in upstream countries of Ethiopia, Uganda, Burundi and DRC and also the Sudan (Yaekob, 2011:43).

¹² International Criminal Court issued an arrest warrant against the Sudanese president Omar Hassen Al-Bashir because of an alleged war crime committed in Darfur.

5.3. Conclusions

There are many factors that contribute to shared water courses either to cooperate or conflictual. When the Nile and Euphrates-Tigris River basins were compared, almost similar conditions are observed. In other words, the factors that are hindering the cooperative efforts of the two River basins are almost similar with different magnitudes. Environmentally, these two river basins are originated from the region that has almost similar atmospheric conditions i.e. there is a great variations in natural abundance of water resources. In both river basins, various efforts have been made to establish a River Basin Organization with a mandate to manage and protect the River Basins. To this end, many river basin organizations were established for the mutual benefit of the riparian states at different times with different objectives. These institutions have passed through long journey of success and failures. Therefore, it cannot be denied that the ineffectiveness of one institution has been replaced by another one with broader scope and objectives i.e. upon the failure of previous efforts of cooperation another cooperative effort have been made for the further benefits of riparian states concerned. For instance, in case of the Nile basin, there have been a various efforts/attempts at cooperation over the use, management and protection among the riparians. However, the attempt at cooperation by establishing water management regime has been unsuccessful. Yet, the failures of one institution force the riparians to design another mechanism with broader scope and significance to further develop cooperation. This can be observed from attempts at cooperation from Hydro-Met, Undugu, and TECCONILE to Nile Basin Initiative. Generally, the evolution of cooperation in the Nile basin has been characterized by many achievements and failures.

As in the case of the Nile basin, there have been efforts to use the Euphrates-Tigris water for common benefits. Different attempts have been done to cooperate on the issues of water. Various agreements and protocols have been signed and entered into at different times; institutions were created to this end. However, compared to the Nile, cooperation is not achieved at the level it should be because each riparian state has very often preferred to act unilaterally without consulting each other. This has affected the efforts of cooperation in this basin. But, this does not mean that the effort at cooperation does not exist in the Euphrates-Tigris River. There have been different efforts to discuss, negotiate and use the resources for common benefit. The problem behind is that the efforts of cooperation has been interrupted, sometimes, due to political tensions

between or among the riparians. The absence of commitment from each riparian state on water allocation and exploitation is primarily linked to political mistrust in a wider sense. However, amidst the challenges, the riparian states have shown their willing to cooperate than going to war.

Generally speaking, the comparative analysis of the challenges to cooperation efforts in the Nile and Euphrates- Tigris River basins shows that the former is more approaching to cooperation for equitable utilization between the riparian states than the latter. This can be observed from the comparative examinations of the cooperative efforts and factors impeding it. Currently, the Nile basin riparians are performing persistent efforts to create River Basin Organization (Nile River Commission) and they are in the last step of signing CFA. To realize this, discussions is going on with Egypt and Sudan, the two downstream states objecting to sign the agreement. Contrary to this, the institutional development in the Euphrates-Tigris River basin is at its infant stage. As an institutional frame work, the JTC already stopped its functions due to disagreement between the riparians over the extent of its mandate. Thus, the Nile basin in this regard is better than the Euphrates-Tigris in approaching to create River Basin Organization.

In theory, the number of riparian countries in a shared river basin has an influence on cooperation efforts. Fewer riparian countries would seem to facilitate a successful cooperation as the dynamics between the riparian countries would be more transparent and straight forward- the more the states involved, the more complex the situation. Within this context, the situation in the two river basins is opposite i.e. the Nile River has more riparians than the Euphrates-Tigris which is eleven and four respectively. But, the Nile riparians are more approaching to cooperation than the latter. The Euphrates-Tigris which has fewer riparians is far left behind than the former. Thus, it can be argued that what is easily observed here is that the type of relations between the riparians is more important than the number of riparians.

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Declaration

I, the under signed graduate student, declare that this thesis is my original work and has not been presented for a degree in any other university and that all sources of material used for the thesis have been duly acknowledged.

Name _____

Signature _____

Date _____