

THE ARAB LEAGUE'S ROLE IN INTERNATIONAL RIVER WATER CONFLICTS  
AND COOPERATION, 1945-2014

by

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## **DEDICATION**

This is dedicated to the Arab peoples and their struggles for more effective and representative governance. May they find hope, safety, and healing in this tumultuous time of political change in the Middle East and North Africa.

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## LIST OF ABBREVIATIONS

African Union.....	AU
Arab Bank for Economic Development in Africa.....	BADEA
Arab Center for the Study of Arid Zones and Dry Lands.....	ACSAD
Arab Fund for Social and Economic Development.....	AFSED
Arab Ministerial Water Council.....	AMWC
Arab Union .....	AU
Arab Water Council.....	AWC
Basin Code.....	Bcode
Basins at Risk .....	BAR
Center for Environment and Development for the Arab Region and Europe.....	CEDARE
Center for Water Studies and Arab Water Security.....	CWSAWS
Central African Republic.....	CAR
Common-Pool Resource .....	CPR
Conflict Analysis and Resolution .....	CAR
Conflict and Peace Database .....	COPDAB
Correlates of War.....	COW
Democratic Republic of Congo .....	DRC
European Commission .....	EC
European Union .....	EU
Framework Convention on Shared Water Resources Between Arab Countries .....	FCSWRAC
Grand Ethiopian Renaissance Dam .....	GERD
Gulf Cooperation Council.....	GCC
Guneydogu Anadolu Projesi.....	GAP
Hypothesis.....	H
Intergovernmental or International Organization .....	IGO
International Relations.....	IR
Islamic State of Iraq and the Levant .....	ISIL
Jordan Diversion Authority .....	JDA
Kuwait Fund for Arab Economic Development .....	KFAED
Kuwait News Agency .....	KUNA

League of Arab States.....	LAS
Mekong River Commission.....	MRC
National Water Carrier .....	NWC
Neo-liberal Institutionalism.....	NI
Non-Governmental Organization .....	NGO
Organisation pour La Mise en Valeur du fleuve Senegal .....	OMVS
Organization of the Petroleum Exporting Countries.....	OPEC
Palestine Liberation Organization .....	PLO
Regional Organization .....	RO
Southern African Development Community.....	SADC
State of Water.....	SOW
Transboundary Natural Resource Management.....	TBNRM
Union of Soviet Socialist Republics .....	USSR
United Arab Command.....	UAC
United Arab Republic .....	UAR
United Nations .....	UN
United Republic of Tanzania .....	URT
United States.....	US
Water Experts Technical Committee.....	WETC
Water Framework Directive.....	WFD

## ABSTRACT

### THE ARAB LEAGUE'S ROLE IN INTERNATIONAL RIVER WATER CONFLICTS AND COOPERATION, 1945-2014

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George Mason University, 6/20/16

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This dissertation focuses on transboundary river water disputes and collaboration in the Arab world, and the participation and roles of the League of Arab States (LAS)—more commonly referred to as the Arab League—in these interactions. Its objective is to improve our understanding of how to work with a key, but opaque regional organization (RO) to encourage cooperative approaches to managing scarce freshwater sources in one of the world's most politically-volatile and arid regions. It is the first academic paper to focus exclusively on river basins that transverse through Arab states; the first mixed-methods approach to studying transboundary river water conflicts and cooperation in the Middle East and North Africa; and the first medium sample size study of international river water disagreements and collaboration.

According to worldwide studies of transboundary river water conflict for the past 50 years, *there have been only 37 violent interactions between two countries over river water, and astoundingly, all but seven of those have been between Israel and one of its Arab neighbors.* (Wolf 1998; Wolf et al. 2006) The research questions are based on this key finding, and explores why there have not been the same number or level of negative interactions between Arab states given that they share some of the river basins as they do with Israel. It also examines if Arab states have been more successful at working together

through the LAS to cooperate over international river water issues. In addition, it researches whether Arabs have used the LAS to sometimes intensify transboundary river water conflicts given their historically-antagonistic relationships with key non-Arab riparian neighbors. I investigate the LAS's involvement in these transactions by focusing on three key organizational roles: the LAS as a regulator, as a forum for information exchange and technical assistance, and as a pooler-provider of member state resources.

The research approach is based on case studies of ten river basins that traverse through Arab countries, using quantitative and qualitative analysis of event data, as well as questionnaire-style interviews of LAS officials and United Nations (UN) and United States (US) diplomats who have worked with the LAS. Event data are isolated from a global data set, new data is created for 2009-14, and all data is coded to indicate the level of conflict or cooperation of an international interaction and which of the three key institutional roles the LAS played in an event if any.

The main overall finding is that LAS tends to be involved in conflictive interstate interactions, usually when a downstream Arab country is concerned that an upstream non-Arab country's large river development project will reduce its water quantity, and the downstream Arab country looks to the LAS to help voice its complaints about the project to the international community. This project concludes that despite organizational shortfalls, the LAS is a key RO for CAR researchers and practitioners, international organizations, governments, non-governmental organizations, and the private sector to work with to try to facilitate positive interstate interactions regarding the management of international river waters. I offer recommendations about how to better facilitate information exchange and institutional knowledge to promote inclusive, sustainable, and peaceful utilization of shared river water sources in Arab river basins. Through an examination of RO involvement in other river basins and in other regions, offer suggestions about how to promote international cooperation for the Arab world. Lastly, I

discuss nascent efforts and obstacles to trading freshwater for hydrocarbons and explain that the political will for such agreements could develop as water scarcity worsens.

## **1. EXPLORING RIVER WATER SCARCITY, CONFLICT, & COOPERATION IN THE ARAB WORLD**

*“Droughts, which may increase, negatively impact the Arab region and affect the shared river basins . . . Mutual reliance on these sources has made water a catalyst of conflict, as in the case of the Iran – Iraq war and Arab-Israeli conflict. On the other hand, the shared rivers highlight interdependence of the countries. This interdependence is real and it means that conflict and cooperation actually co-exist.” (2nd Arab Water Forum Synthesis Report 2011, 14)*

*“The Arab World is by far the driest and most water scarce region in the world, and . . . by the middle of this century, the whole region will experience absolute water stress.” (Water Governance Program for Arab States 2010, 3).*

The first statement underscores that disagreements about how states should manage scarce transboundary river water resources has at times worsened conflicts between Arab and non-Arab states. It also highlights that sometimes such disputes have provided an opportunity to increase cooperation between governments in one of the most politically-volatile regions in the world. The second statement suggests that water shortages in this region will become even more acute in coming years, stressing the need to better understand how transboundary river water disputes in this part of the world have thus far been resolved or how they worsen tensions between Arab and non-Arab states. How can conflict analysis and resolution (CAR) researchers and practitioners mitigate the development of violent conflicts over river water management supply issues? How can we promote inclusive, sustainable, and peaceful river water management regimes that can help to address larger, entrenched, protracted conflicts? Is there an existing institution or are there elements of an extant organization in the Arab world that can be fostered to further these purposes?

## 1.1 Problem Statement

The introductory quotations highlight that the scarcity of transboundary river waters in the Arab world can be a political irritant between states, but countries sometimes also cooperate to jointly manage shared rivers and de-escalate disputes. To date, there has not yet been a war anywhere in the world solely over how to share water as a consumable, finite resource. Thus, there haven't been any wars only over transboundary river water scarcity in the Arab world. However, cross-border river water rights have been a factor in at least several regional wars, ongoing interstate disputes, and instability associated with the Arab Spring, demonstrating that it has at times been an interdependent variable of violent conflict like other environmental conflicts. For example, Israel's attack on a Syrian water project diverting water from the transboundary Baniyas River led to border clashes and limited airstrikes, escalating tensions with Arab states and Israel and contributed to the outbreak of the broader Six-day War in 1967. (Shemesh 2004, Maital 2007, Dombrowsky 2007, Dunstan 2009) River water management has been a point of contention that Arabs and Israelis view as part of a broader peace-building effort.

The mismanagement of scarce water resources has been a contributing factor in Arab Spring unrest because it has created refugees who flee to new territories along international river systems, which has put additional stress on water sources and worsened inter-state conflicts. For example, Syria suffered one of its worst droughts from 2006-11, leading to the migration of rural Syrians to urban areas in search of work and adding to the burden of an already-underperforming Syrian government; this exacerbated widespread discontent that led to the Arab Spring uprising there. (Friedman 2012, Hammer 2013) Internal violence in Syria spurred refugees to seek shelter in neighboring countries, including Jordan, and their need for water has lowered the already-meager streamflow in the Jordan River, intensifying tensions between Jordan and upstream

Israel. (Schwartzstein 2014) According to Chahra Ksia, President of Center for Water Studies and Arab Water Security (CWSAWS), violence attributed to Arab Spring uprisings and government crackdowns have led to the destruction of the water and waste water sectors in several Arab countries, causing harm to the environment and public health. (2014)

Notably, Israel and the Arab states that border it have experienced the highest number of violent interstate exchanges over transboundary river water compared to any other group of states. According to worldwide studies of transboundary river water conflict for the past 50 years, there have been only 37 violent interactions between two states over river water; astoundingly, all but seven of those have been between Israel and one of its Arab neighbors. (Wolf 1998; Wolf et al. 2006) Since Arab countries are in the most arid region of the world and share the same scarce transboundary river sources as they do with Israel, why haven't we seen a similar number of violent interactions between Arab states during the same time frame? Have Arab states had a similar level of conflict amongst themselves that did not lead to violence because they have been relatively more successful at working together to diffuse tensions over how to utilize scarce river waters, and if so, how? Given Arab states' historically antagonistic relationships with non-Arab neighbors have they at the same time coordinated an escalation in conflict against non-Arab states over river water management issues, and if so, how? What lessons can these past relationships teach us about the potential pathways of management and development for shared river water resources concerning Arab States' interactions with each other and non-Arab neighboring states?

## **1.2 The Argument**

There is a lack of extant scholarly literature that considers if there is an existing regional institution and the roles it might play to help resolve transboundary river water disputes in the Arab world to promote inclusive, sustainable, and peaceful utilization and

stewardship of shared river water sources in the Middle East and Africa. Existing studies do not explain the regional institutional framework or mechanisms that enable Arab governments to organize their plans to protect their perceived rights to transboundary river waters. Most studies that focus on cases of river water conflict and cooperation in the Middle East and Africa only focus on a few cases instead of across the region. Other studies are focused exclusively on quantitative analysis formulated from large global data sets that only help to explain the variables present in river water conflict and the probability of interstate conflict or cooperation. There are no studies yet that either employ a mixed-methods research methodology or focus on river basins in Arab states; investigate Arab states' approaches with each other and vis-a-vis non-Arab states about how to manage international river water; or explain the level of engagement, roles, and tendency of the pre-eminent Intergovernmental Organization (IGO) of Arab collective action, the League of Arab States (LAS), in coordinating Arab transactions concerning international river basins.

The LAS is the pre-eminent body of Arab collective action and serves as the main body for coordinating Arab affairs and defining, representing, protecting, and advancing Arab interests. The LAS, commonly referred to as the Arab League, was formed in 1945 to facilitate collaboration amongst Arab states, with subsequent treaties and councils created to coordinate their economic and defense strategies.

In order for CAR researchers and practitioners, non-governmental organizations (NGOs), and governments to understand how to effectively work in the region to facilitate diplomatic solutions to transboundary river basin management disputes, we must first understand the foremost institution through which Arab governments devise and coordinate their efforts and regional foreign policies. Gaining knowledge of the tools and methods of the the LAS and how Arab governments use it to organize collective action amongst themselves can enable less costly, more responsive, and more culturally-

sensitive solutions to transboundary river water conflicts. The LAS is also a potential stakeholder in transboundary river water conflicts in the Arab region with which CAR researchers and practitioners, academics, NGOs, and governments may want to consider, consult, and include in diplomatic efforts to resolve such disagreements and through which they may want to work with to try to de-escalate broader conflicts that include river water issues. Germany's official aid organization, the Gesellschaft für Internationale Zusammenarbeit (GIZ), explains that the LAS is “the legitimate regional governance structure of the Arab region. As such, [the] LAS is the adequate political partner for all programs with regional goal setting or regional coverage.” (Adaptation to Climate Change in the Water Sector in the MENA Region, n.pag.) In addition to the GIZ, several United Nations (UN) organizations; the Stockholm International Water Institute; and regional NGOs, think tanks, and financial institutions have Arab-focused river water projects in process—many of which are in coordination with the LAS—but few understand how the LAS operates and when and for what reasons Arab members states look to it for assistance in international river basin issues. In fact, according to the Deputy Chief Representative of the LAS to its Mission in Washington DC, there is little organizational knowledge within the LAS, let alone outside of it, about what roles the LAS has played to date in transboundary river water conflict and cooperation to date. (Alfonse 2016) Yet, in the past few years, the LAS has been demonstrating new and renewed efforts to play a role in foreign hydropolicies in the region without a firm grasp of what roles the organization has played in the past in this issue area. This research study aims to fill this gap in extant literature and organizational knowledge. Thus, this dissertation seeks to explore the LAS's interactions in and contributions to international river water conflicts and cooperation and what roles the LAS might have historically played in such interactions to help inform a host of experts and stakeholders who might work with the LAS.

While the LAS has encouraged the unity of Arab states and in some ways embodies pan-Arab ideology, it also has espoused the priority of the protection of states' sovereignty—which can sometimes come into conflict with the premise of unity—underscoring the need for detailed research of governments' interactions and behaviors with regards to states' rights to transboundary river waters. Moreover, sentiments of Arab unity have waxed and waned over time in concert with broader regional and global considerations, suggesting that Arab unity has been inconsistent and underscoring the need to understand if, when, and it might play a role in inter-Arab and Arab-non-Arab hydro-political transaction across a long historical timeline. Since this study seeks to be representative of the LAS and its history, the research focus captures almost the entire history of the LAS, from its creation in 1945 to 2014, making it a robust and representative time frame to bolster the validity of the study.

It is widely recognized that the LAS has sometimes fueled interstate conflicts between Arab states and their non-Arab neighbors, including Israel, Iran, and Turkey, and sometimes condoned and coordinated violence against them. (Zacher 1979, Dawisha 2003, Shemesh 2004, Rogan 2009) There are a few data points in extant literature that suggest it can sometimes be an obstacle to transboundary river water cooperation and that it sometimes plays a role in escalating transboundary river water disputes. The LAS twice prevented the ratification of the Johnston Plan in 1955<sup>i</sup>—the only attempt at a basin-wide initiative to manage the Jordan River—although the Arab states that belonged to the Jordan River Basin and Israel had agreed in principle to plans about how to share the scarce resource. (Zawahri 2010) This suggests that the LAS at least sometimes plays a key role in determining Arab willingness to ratify treaties, even if the riparian countries themselves are able to come up with a transboundary river management regime. The most widely-known episode of LAS engagement in cross-border river water conflict was during its 1964 and 1965 summits, when it coordinated a plan by Arab upstream

countries on the Jordan River to divert water from Israel, which spurred sporadic border clashes that escalated into the 1967 War. Yet, there has been no systematic study that traces the different ways in which the LAS throughout its history has fueled transboundary river water disputes, or facilitated their resolution, that contribute to the broader Arab-Israeli dynamics or other Arab-non-Arab policies.

Why study the involvement of the LAS—an organization that has long been criticized for being ineffectual—in transboundary river water conflict and cooperation now? The LAS remains the sole organizational representative of all Arab states and in the past few years, the LAS is showing renewed importance in the Arab world and the international community. The LAS is playing new roles in responding to Arab Spring instability and is rejuvenating efforts, as well as taking nascent steps, to coordinate regional water management, including that of transboundary river waters. For example, the LAS has played a new role in trying to protect civilians in some member states from violent government crackdowns. In 2011 the LAS recognized the rebel government in Libya as the official government and asked the UN to institute a no-fly zone over the country to protect Libyan citizens from possible government airstrikes. Some say this move demonstrated a shift in the LAS's willingness to involve itself in members' internal affairs and contributed to the downfall of the Muammar Gaddafi government. In 2015, the LAS also announced plans to jointly, militarily confront the threat of the Islamic State of the Levant and Iraq (ISIL), suggesting that there might be revived impetus because of the Arab Spring for Arab states to act together to manage regional instability. (Leiby and Mansour 2011, Maddy-Weitzman 2012, Taylor 2015) Moreover, the LAS in 2008 constituted a high-level decision-making body to facilitate inter-Arab decision-making over water with an aim of taking regional collective action to protect Arab water interests. This body, the Arab Ministerial Water Council (AMWC) in 2012 adopted an Arab Water Strategy for the next twenty years, which includes a goal to develop an

institutional framework for governing transboundary river water management. This LAS framework is intended to provide guiding principles for all future bilateral and multilateral shared rivers negotiations and agreements in the region going forward. (Managing Water Under Uncertainty and Risk 2012) These engagements, actions, and plans demonstrate that the LAS is still an important regional player and make it imperative for stakeholders to understand the historical involvement in the LAS to date on transboundary river waters cooperation and conflict.

Based on research and observations from extant literature on international relations (IR) and conflict and cooperation, environmental and river water conflict and cooperation, and the history of Arab nationalism as a focal point of regional conflict and cooperation, I formulate the following hypotheses. The rationale for each will be explained in the subsequent extant literature chapters.

- *H1: The LAS has sometimes been engaged in regional transboundary river water conflicts by serving in one or a combination of three different capacities: as a regulator that shapes regional principles about the management of cross-border river waters; as a forum for deliberation, for the presentation of sides, and for technical assistance and information exchange; and as a pooler-provider of resources to support river water development projects.*
- *H2: On average, the LAS has had conflictive interactions between Arab and non-Arab states.*
- *H3: On average, the LAS has had cooperative interactions among Arab states.*
- *H4: The LAS has been involved most frequently in international interactions regarding river water scarcity more than any other river water issue.*
- *H5: The LAS is more active in river water interactions when Arab nationalist sentiments are high and the political environment was more conducive to Arab*

*consensus—until the end of the 1967 War—and when the LAS created a high-level political decision-making body in recognition of increasing regional water challenges in 2008.*

- *H6: The LAS has been engaged most frequently in international river basin interactions with Israel more than any other non-Arab neighboring state.*

It is important to note that conflict and cooperation among Arab States has occurred outside of the LAS. However, such events do not capture the dynamics of the Arab region as a whole and would not help to explain why states that identify as Arab have had less violent conflicts over shared river water resources than riparian Arab and non-Arab partners. It also would not help to explain the role that the LAS plays in such issues. Bilateral or other multilateral interactions between Arab and non-Arab states over how to manage scarce transboundary river waters would further add to our understanding of these issues in the region and should be considered as topics for future studies.

### **1.3 Definitions**

The subject of this analysis is the LAS and its role as an institution and how, when, and why its members employ it in transboundary river water interactions. Most definitions of institutions describe them as negotiated or socially-accepted norms that constrain and incentivize the behavior of actors and create stability. Among the most cited definitions of institutions among scholars comes from the one of the foremost neoliberal institutionalists, Robert Keohane, who describes them as “persistent and connected sets of rules (formal and informal) that prescribe behavioral roles, constrain activity and shape expectations” (1989, 3).<sup>ii</sup> The LAS can be understood as a specific type of institution, an IGO, because it is a “formal, continuous structure established by agreement between members . . . from at least two sovereign states,<sup>iii</sup> with the aim of pursuing the common interest of the membership.” (Archer 1992, 37) It is an IGO composed of Arab governments.

States are “defined as the authoritative political institution that is sovereign over a recognized territory.” (Luciani 1990, xviii) This analysis considers Arab states as the 22 members of the LAS: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, the Palestinian territories, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen. I hereafter refer to the Palestinian territories as Palestine, since the LAS and its member states consider it a country. In the case of Sudan, the analysis includes present-day South Sudan until its secession on July 9, 2011 because this country has not been considered part of the LAS since gaining independence.

More precisely, when I refer to rivers, I am referring to river basins as based on the refinement of the 1978 UN Register of River Basins by the International River Basin Register, a compendium of academic, governmental, and non-governmental research on rivers. River basins are:

“the area which contributes hydrologically (including both surface- and groundwater) to a first order stream, which, in turn, is defined by its outlet to the ocean or to a terminal (closed) lake or inland sea. Thus, river basin is synonymous with what is referred to in the U.S. as a watershed . . . We define such a basin as international if any perennial tributary crosses the political boundaries of two or more nations.” (Wolf et al. 1999, 389)

Based on this definition, Bahrain, Comoros, Kuwait, Oman, Qatar, United Arab Emirates, and Yemen have no transboundary river basins and will only be included so much as they weigh in on the topic as LAS members. There are 23 international river basins that fall in the territory of an Arab state, according to Table 1.

**Table 1: International River Basins Within or On the Border of Arab States**

<b>River Basin</b>	<b>Arab Riparian State(s)</b>	<b>Non-Arab Riparian Neighbor State(s)</b>
An Nahr el Kabir	Lebanon, Syria	
Asi/Orontes	Lebanon, Syria	Turkey
Atui	Mauritania	Western Sahara
Awash	Djibouti, Somalia	Ethiopia
Baraka	Sudan	Eritrea

Congo/Zaire	Sudan	Angola, Burundi, Cameroon, Central African Republic (CAR), Democratic Republic of Congo (DRC), Republic of the Congo, Gabon, Malawi, Rwanda, United Republic of Tanzania (URT), Uganda, Zambia
Daoura	Algeria, Morocco	
Dra	Algeria, Morocco	
Gash	Sudan	Eritrea, Ethiopia
Guir	Algeria, Morocco	
Jordan	Egypt, Jordan, Lebanon, Syria, Palestine	Israel
Lotagipi Swamp	Sudan	Ethiopia, Kenya, Uganda
Lake Chad	Algeria, Libya	Cameroon, CAR, Chad, Niger, Nigeria
Lake Turkana	Sudan	Ethiopia, Kenya, Uganda
Medjerda	Algeria, Tunisia	
Niger	Algeria	Benin, Burkina Faso, Cameroon, Chad, Guinea, Ivory Coast, Mali, Niger, Nigeria
Nahr El Kebir	Syria	Turkey
Nile	Egypt, Sudan	Burundi, CAR, DRC, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, URT, Uganda
Oued Bon Naima	Algeria, Morocco	
Senegal	Mauritania	Guinea, Mali, Senegal
Tafna	Algeria, Morocco	
Tigris-Euphrates/Shatt al-Arab	Iraq, Jordan, Saudi Arabia, Syria	Iran, Turkey
Wadi Al Izziyah	Lebanon	Israel

Source: International Water Event Database: 1950-2008. Transboundary Freshwater Dispute Database, Department of Geosciences, Oregon State University. Web. 19 September 2012.

#### 1.4 The Scope of the Dissertation

The discussion and research that follows seeks to explain in what capacities the LAS has served in transboundary river water conflicts and cooperation over the course of most of its history, from 1945 to 2014. It explores the roles that the LAS has played in these international interactions as a regulator, as a forum for information exchange and technical assistance, and as a pooler-provider for government resources to address LAS member issues. Chapters two and three discuss what insights extant literature has to offer

on why states—as the LAS's decision-makers—engage in disputes or collaborate over environmental issues such as shared river waters. The fourth chapter outlines a mixed-methods research approach, using tracing, coding, and categorizing for all publicly-recorded instances of international river water conflict and cooperation from 1948-2014. This data is then used for quantitative and qualitative analysis of the LAS's involvement in transboundary river water conflict and cooperation and the data analysis is supplemented by survey-style interview responses from LAS, UN, and US officials. The fifth chapter constructs a historical narrative of the changing salience of Arab nationalism that contributed to or hurt the ability of LAS members to collectively take action on broader regional issues to explain if the political environment within the LAS was conducive to joint action. The sixth chapter explains the results and analysis, underscoring that the region is very active in terms of water conflict and cooperation and that the LAS contributes to both, but on an infrequent and ad hoc basis. The main finding is that the LAS is most often involved in conflictive interstate interactions over transboundary river water sources, largely when a downstream Arab country is concerned that its river water quantity will decrease because of a non-Arab upstream country's large river development project. Finally, the seventh chapter outlines the conclusion, summarizing the key findings, discussing their implications, and making recommendations for how to help facilitate the peaceful, sustainable management of transboundary river waters in the Arab world. The following paragraphs summarize the proceeding chapters in greater detail.

To better understand at the state-level how governments interact with each other within an international system, chapter 2 examines the long-standing debate between realism, neo-liberal institutionalism (NI), and social constructivism about whether, when, and how institutions and identities matter. Realist literature tends to underemphasize the role of institutions and identities and say that the international state system juxtaposes

countries to be engaged in power struggles and zero-sum games. NI argues that states are instead focused on maximizing their welfare rather than power, that institutions are an important tool for them to do so, and that institutions can shape their behavior. Social constructivism emphasizes the importance of identity salience to a state's foreign policy decision-making, as well as that of a regional organization (RO) composed of state governments, and that identities shift over time and can cross political boundaries. This chapter concludes that institutions and identities can sometimes matter in interstate interactions, which calls for research in what contexts in they influence national governments' foreign policy approaches. It further follows that the LAS sometimes matters in interstate conflict and cooperation, including that over transboundary river waters, because government leaders' identification of themselves and their country as Arab can impact what foreign policies they even view as possible options, influence their domestic politics, and shape their assessments about their place in the international system. In addition, through a discussion of extant literature on IGOs and ROs, I outline three key institutional roles that I examine to determine the different capacities that the LAS might play in transboundary river water management: as a regulator, as a forum for information exchange and technical assistance, and as a pooler-provider of intergovernmental resources to address LAS member issues.

Chapter 3 expounds on extant environmental conflict literature, explaining that while we have not seen environmentally-focused wars to date—including over shared river waters—the interdependence and complexity of environmental and human systems means that most violent disputes have historically included an environmental factor. The realist-NI debate, combined with environmental conflict theories, extends to the extant literature on interstate dynamics over transboundary river waters. Some research argues that conflict is more likely over scarce water resources. Other research contends that water scarcity instead drive states to collaborate. A third set of research draws from both

paradigms, suggesting that we are likely to observe conflict and cooperation in the face of water scarcity. This extant literature is either composed of small sample size, qualitative case studies or large sample size, quantitative analysis research, none of which studies the Arab world.

To build on this extant literature and answer the research questions, chapter 4 explains that this study takes a mixed-methods approach of historical qualitative and quantitative analysis of event data to discover the LAS's level of involvement, roles, and contributions to international interactions concerning shared river water in a rare, medium-sized sample of a regional research design. I use an existing database, Basins at Risk (BAR), which captures all publicly-recorded international incidents regarding transboundary river water issues from 1948-2008. I extract the data to focus solely on those events that involved the LAS as an actor and that occurred within a watershed that includes at least one Arab country. The BAR includes a scale of event intensity to indicate the level of conflict or cooperation in each interstate interaction, which will allow me to compare instances of transboundary river water in the Arab world as compared to river basin interactions in the rest of the world. This indicator will also enable me to measure the frequency and intensity of the events that the LAS has contributed to overall as well, allowing me to make comparisons between the LAS's activities in different roles, time periods, river basins and the whole dataset. I create three data categories to signify as the roles that the LAS plays as mentioned above—a regulator, a forum for information exchange and technical assistance, and as a pooler-provider of IGO resources to address member issues—and code each datum to indicate which role or roles the LAS plays in every event. To account for the years 2009-2014, I create my own event data by searching through key international and regional press outlets and use the BAR methodology and metric to assigning the level of conflict or cooperation. To further supplement the gap in BAR data, I conduct structured, survey

interviews of LAS, UN, and US diplomats based in Cairo—where the LAS is headquartered—to explore the LAS's roles in transboundary river water cooperation since its creation in 1945 to 2014. Moreover, I attend the 3rd Arab Water Forum (AWF) conference in Cairo, Egypt in 2014 held by the Arab Water Council (AWC), a non-profit think tank affiliated with the LAS, to provide up-to-date information about the LAS's approach towards using and protecting these shared resources; this conference also helped to put me in touch with regional water experts to interview.

Chapter 5 discusses literature from Arab and international studies that highlight that nationalist sentiments can play a key role in inter-Arab and Arab-non-Arab relationships, helping to create an international political environment in which cooperation is more or less possible with other Arab states under the LAS's auspices. This makes it critical to examine the history of Arab nationalist origins and identity salience as it has strengthened or weakened to help determine when and to what degree identity issues have played a role in regional transboundary river water interactions. I add explanations of the LAS, its key guiding principles, and its sub-organizations and affiliates to explain more about what is generally known about the LAS's instruments for carrying out Arab decisions and collective action in the region.

Chapter 6 explains the results of the research, testing for the six hypotheses I formulated and adding context to my findings through additional qualitative research. I discover through my mixed-methods approach to the questions that the Arab world has experienced some of the most intense and frequent interstate interactions regarding international river basins in the world compared to other river basins; that the LAS is not involved in such interstate transactions on an infrequent and ad hoc basis; that it tends to be involved in international river disputes more often than collaboration; that it has played at least one of the three roles as a regulator, as a forum, and as a pooler-provider of shared resources in all of its transactions; that most of the events that the LAS is

involved in are focused on river water scarcity issues; and that the LAS has been most frequently engaged in the Tigris-Euphrates-Shatt al-Arab River Basin, and among non-Arab countries, has had the most interactions with Turkey. Thus, the research illustrates that hypotheses 1-4 are correct, while hypothesis 5 is partially correct, and hypothesis 6 was incorrect. My findings repeatedly add support to the most recent body of water conflict literature that stresses water scarcity is likely to lead to an increase in both conflictive and cooperative interstate events; the implication of this finding is that this region is likely to become even more active in terms of international river water interactions and the Arab world become increasingly important for government, non-government organizations, and CAR researchers and practitioners to become more knowledgeable about to help encourage cooperative outcomes. My findings also refine the existing literature's definition of hydro-hegemony in the Arab context. I determine that Arab states tend to seek out the help of the LAS when an Arab state or states are downstream from a non-Arab state that is beginning to construct a large river development project that Arab states are concerned will impact their streamflow. The LAS provides more international political pressure for the downstream Arab states to try to dissuade the upstream, non-Arab state from executing the project. The LAS can help to get the non-Arab state to the negotiating table, tarnish the non-Arab state's international image, and can convince other IGOs to cut funding for the project. I conclude that although the LAS is not often involved in international river water interactions, it is still an important stakeholder for government, NGOs, and CAR practitioners to consider engaging with that can contribute to conflict escalation and de-escalation.

The last chapter concludes that the LAS is an opaque organization with a lack of institutional knowledge and suggests steps that it can take to improve its transparency and communication to work better with its partners and achieve more peaceful, desirable outcomes. I stress that this study should be considered only a preliminary understanding

of the LAS's role in transboundary river water because of the lack of primary source information, and suggest that it is possible that the LAS plays a greater role in resolving inter-Arab conflicts than is captured by this study. I conclude that this furthermore supports the point that the LAS should be considered a key stakeholder and partner in the region for addressing international river water disputes and fostering collaboration.

## **2. INTERSTATE CONFLICT, COOPERATION, INSTITUTIONS, & IDENTITIES**

To answer the question of when and how an institution like the LAS might matter in shaping Arab interstate riparian interactions, we must first better understand the broader debate about what considerations drive governments' relationships with other states and if, when, and how international institutions and identities shape foreign policy approaches. There is a long-standing debate in the field of IR between realist and NI theories about states' interactions and the relevance of institutions that provides a framework for understanding governments' tendencies to compete or collaborate over a collective good, that explains how institutions can be both helpful and problematic in resolving interstate conflicts. Social constructivist arguments contribute to the realist-NI debate by adding that identities can be key drivers of state interests and undergird governmental perspectives about whether another state is an enemy or ally.

### **2.1 Realism**

Proponents of the realist paradigm contend that because there is no global, overarching regulatory authority to coordinate state<sup>iv</sup> interactions, states are necessarily competitive, act in their own interests, and have limited cooperative transactions that occur only when states' interests align. The international system is characterized by a state of anarchy and above all else, a state seeks to ensure its own survival, which is often understood in terms of maintaining its sovereignty. (Waltz 1979; Mearsheimer 1995; Morgenthau 2005) Some realists further purport that states also compete to become or

maintain their status as the most powerful state in a regional hegemony or even in the wider international system. States are greedy and seek to obtain as many material holdings as possible and exert as much power as they can. (Mearsheimer 1995; Morgenthau 2005) As a result, states do not trust each other and this distrust is the key inhibitor for interstate cooperation. Many IR theorists of the realist school of thought draw from game theory, pointing to the Prisoner's Dilemma Game in which an actor is always better defecting from an agreement than trusting a second actor, because if they trust the second actor and it defects, the first actor will incur more harm than if he too had just defected at the start. This approach emphasizes a one-time transactional relationship between states' foreign policy approaches. Governments are only to be judged based on their effectiveness at securing a state's survival, not on moralistic concerns—it is not wrong to inflict harm upon an enemy state. Thus, war is viewed as a legitimate tool of statecraft and a state's military power is the pre-eminent form of a government's power. (Mearsheimer 2002) The welfare of another state and its inhabitants is of no concern to the acting state.

Realists acknowledge that sometimes states act through institutions like the LAS to achieve their objectives, but argue that the institutions do not in and of themselves matter; what drives states' behavior is the power differentials that undergird the international political domain. (Mearsheimer 1995; Schweller and Priess 1997; Dougherty and Pfaltzgraff 2001) States may manipulate institutions as other fora to exert their influence over and relative to other states. For example, states may try to set an institution's agenda and influence who funds the institutions and who enjoys the benefits. (Mansfield 1995) When states do coordinate through institutions—such as trying to curb a third state from becoming more powerful—realists stress that such alliances are temporary and difficult to achieve. (Mearsheimer 1995; Greico 2002) Thus, according to realists, institutions are merely tools that states employ and manipulate at their will to

push their own agendas and they have little influence to singularly change the outcomes of interstate interactions.

In sum, the realist paradigm suggests that the international system is anarchic and that states are self-interested, seek to protect their sovereignty at all costs, increase their material holdings, and exert their power over other states; states view foreign policy relationships as transactions with little longevity and rarely engage with international organizations. Thus, we should anticipate that Arab countries do not always work through the LAS to resolve or escalate river water disputes and only do so when it is in their interests—a key idea that helps to formulate the first hypothesis in the following section. Realist ideas suggest that Arab states seek to maximize their access to and usage of international river waters to bolster their own livelihoods and use the scarce cross-border river sources without regards to their downstream neighbors usage or needs and how such transactions influence their broader and future relationships. This theory, however, does little to explain why there are historical examples of cooperation between states on transboundary river waters, why there are few violent interactions between Arab states that share the same rivers, and why an international institution like the LAS persists. The next section on Neoliberal Institutionalism (NI) helps to better explain why states that share rivers sometimes choose to cooperate and why they sometimes act through a joint institution such as the LAS.

## **2.2 Neoliberal Institutionalism (NI)**

Another IR paradigm, NI accepts realism's premise—that states are the main actors in the international system and are self-interested—but argues that institutions like the LAS can enable states to find a solution for international collective action problems by providing information about other states' behavior, creating stability, and highlighting for states the longevity of their foreign relations. NI scholars argue that the use of force can be ineffective because in many respects states are mutually dependent upon each

other, especially in the realms of economics and the environment, and that in some situations states can all be better off when they cooperate. Many studies point out that the prevalence of effective, inclusive institutions that enable collective action is an important mitigating factor in conflict because they facilitate coordination on shared interests, especially in the context of environmental problems since they have the potential to affect so many stakeholders. (DeSoysa 2002a, 2002b; Diamond 2005; Giordano, Giordano, and Wolf 2005; Kahl 2006) In fact, the number of multilateral environmental agreements made between 1992 and 2012 outnumbered those made during the previous two decades, providing empirical evidence that we are seeing the development of more institutions in recent times and many revolve around transboundary environmental issues. (Ovokendo and Keohane 2012) NI scholars emphasize that countries naturally exhibit interdependencies; they are components of a broader international system, meaning that harm to one's neighbor can mean damage to one's self. Powerful states or hegemony may choose not to exercise their power or may even voluntarily give some of it up if it meets some of their broader objectives. States in some situations—especially in areas where the level of interdependence is high—may be willing to give up some of their own sovereignty for influence in other states' government policies; thus, there is not the same priority of protecting sovereignty as there is according to the realist paradigm. (Finklestein 1974; Skolnikoff 1994; Ikenberry 2000; Greico 2002; Keohane 2012) Instead, maximizing welfare is the most important state goal.

NI scholars contend that institutions like the LAS can provide a forum and tools that put states on more equal footing; an imbalance of interstate power does not always have to dominate interstate relations if states are willing to work through institutions because they perceive that their benefits are greater than if they acted unilaterally or bilaterally. NI scholars argue that institutions matter at least some of the time because outcomes of interstate interactions do not always reflect power balance differentials,

demonstrating that incentives and constraints that make up institutions can shape states' behaviors. (Archer 1992, Scwheller and Priess 1997)

Institutions can range from the informal to the formal: they can be norms, treaties, laws, regimes, or regional or international organizations. This range of institutions can be used in conjunction with each other, typically informal norms form the basis for formal institutions; while informal institutions might be used singularly to guide and justify interstate behavior. Thus, NI raises the possibility that there are informal institutions through which Arab states coordinate on transboundary river issues outside of the LAS that are not captured by this study. Thus, the review of NI literature highlights the study's limitation that it does not account for all inter-Arab river water coordination. State governments may find international institutions like the LAS useful to act through because they can decrease transaction costs; increase the value of fostering a good reputation; help states think strategically; set standards; provide information about other states' behavior; and more generally alter aspects of the international environment. (Lipson 1984; Keohane and Ostrom 1995; Schweller and Priess 1997; Young and Levy 1999; Martin and Simmons 2001; Nye 2009; Ovodenko and Keohane 2012) Nearly all NI literature highlights that institutions allow state governments to break out of the mindset of a prisoner's dilemma. Through the establishment of interstate agreements that serve as institutional frameworks, they outline paths and expectations for continued interactions, delineating costs of non-compliance with those agreements and rewarding states that comply with public, international political credentials.

However, there are asymmetries in states' dependence and cooperation depends on contextual factors; institutions, including the LAS, might not always be effective or inclusive so the presence of institutions is not a guarantee of cooperation. Certainly, the LAS is exclusive of all non-Arab countries. NI stresses that factors such as overlapping interests, future expectations, and the number of actors are key determinants of whether

an issue leads to interstate disputes or collaboration with regards to IGOs. (Choucri and Bennett 1972; Finkelstein 1974; Keohane and Nye 1974; Keohane 1989; Haas 1990; Keohane and Martin 1995; Keohane and Ostrom 1995; Keohane and Nye 2001; Young 2010) At the same time, NI scholars acknowledge that there is “never an absolute need” for going through an international institution. (Martin 2001, 63). Thus, NI suggests that that the LAS won't always play a role in such transboundary river water conflict and cooperation; it depends on states' calculations, the institution, the circumstances, and the dynamics within the international system.

The interactions of states can lead to changes in policy and relationships and prompt states to reflect those changes in institutions; however, most institutions and institutional components tend to endure. The next section explores how changes in institutions manifest but also underscores the tendency of many elements of institutions to persist. It highlights the importance of closely examining an institution's path of development over time and to consider the potential for shifts in them. This reasoning undergirds the approach of looking at a long historical timeline to better understand how the LAS works and its contributions to international river water interactions.

### **2.2.1 Institutional Continuity, Change, & Problems**

Institutions, as noted above, are frameworks designed to incentivize or discourage certain behaviors to help create stability and some certainty for actors amidst changing circumstances, meaning that they largely tend to persist. Moreover, the stability that institutions provide also makes them good models for future interstate interactions and the formation of additional IGOs. Familiar institutional designs that have already been negotiated, and those that are perceived as being successful are more likely to be adopted in future bargaining processes, leading to institutional diffusion and interconnectedness. (Campbell 2010, Ovokendo and Keohane 2012) This trend also helps to explain why evolution of institutions is path dependent, meaning that developments in an institution

are shaped by previous changes in the institution, and why institutions tend to exhibit incremental changes instead of revolutionary transformations. (North 1990, Campbell 2010, Kapp 2011, Keohane 2012) This idea underscores the importance of understanding the engagement of an IGO like the LAS in transboundary river water conflict and cooperation, because these dynamics are likely to shape the roles of any future institutions that may come to be involved in these issues. It also suggests that we are more likely to see incremental developments in the ways in which the LAS is involved in these matters instead of large shifts.

Institutional change can come about in a variety of ways and many NI authors emphasize changes in power or member preferences, or the addition of new members, are among the most common sources of change. (Finkelstein 1974, Keohane 1989, Haas 1990, Keohane and Nye 2001, Martin 2001, Helfer 2006, Nye 2009, Campbell 2010, Kapp 2011, Arato 2013) Change can also come about through conflict and power struggles over resource distribution; interestingly, these episodes of conflict when they are resolved tend to further stabilize institutions making them even more sticky over time. (Nye 2009, Campbell 2010) Occasionally, more rapid institutional shifts can occur because of crises and exogenous shocks, such as war or economic crises. (Haas 1990, Keohane and Nye 2001, Campbell 2010) However, most institutional change manifests as evolution in rules and procedures, while the norms that undergird them tend to remain constant. (Ruggie 1982) The details in the operations of institutions are more likely to change than the frameworks of the institutions themselves. Clearly, power differentials still do play a considerable role in institutional dynamics—as originally suggested by the realist school—as well as the goals of its members that may shift over time and in concert with new actors. These facets of NI theories underscore the importance of understanding the power shifts and crises that have occurred in the Arab world and how that has influenced the LAS, to be explored in more detail in chapter 5.

Problematically, the time that it takes to create and adjust institutions is a conflict-ridden process, again emphasizing that the prevalence, relevance, and use of institutions does not mean that members are not fighting over their shared interests. Getting an institution to shape behavior in desirable ways takes time, and creating an institution involves a “difficult, time-consuming, and conflict-invoking process.” (Ostrom 1990, 14) Moreover, the slow evolution of institutions means that real world events often evolve more quickly than the incentive and constraint frameworks of institutions are able to be adjusted. These frameworks have to be re-negotiated, and some members may resist because they have vested interests in the status quo. The bargaining and negotiating processes can be dominated by the most powerful members, and they may use them as a tool to extol structural scarcity on weaker parties and help maintain the current power dynamic of relationships in the international system. (North 1990; Haas 1990; Young and Levy 1999; Conca 2006; Campbell 2010; Ovokendo and Keohane 2012) Not surprisingly, this means that there may be dominant players within the LAS that significantly shape if, when, and how the LAS engages in cross-border river water acts of conflict and cooperation.

Further complicating matters, institutions can at times exhibit independence apart from their members, leading an IGO's leadership to sometimes effect or prevent its change. Organizations can become more autonomous and seek to protect their own mission, making them less responsive to the needs of states and could discourage members from continuing to engage through them. (Finkelstein 1974, Keohane 1989, Helfer 2006, Campbell 2010) While a key role and goal of institutions is to improve the exchange of information between countries, there may still be a lack of complete, accurate information to inform the actors shaping the institutions. (Ostrom 1990, Campbell 2010) As a result of these problems in institutional formation and maintenance, institutions at times can shape behavior in perverse, unintended ways. (Schweller and

Priess 1997, Kapp 2011, Campbell 2010) For example, one can imagine that a lack of information and stickiness of institutions could be particularly detrimental with an issue like transboundary river disputes, because the water quality and quantity can change in any given season; if an agreement does not allow for corresponding adjustments in water supply and demand, it could lead to or worsen an interstate disagreement. Furthermore, institutions and the rules that undergird them are often ambiguous and open to interpretation, and although there is a framework in place, its meaning and application may have to be frequently negotiated and may be interpreted differently, causing friction between parties (Campbell 2010). In addition, states may choose not to engage through institutions even when the institutions' mandate may apply to an interstate issue at hand. (Haas 1990)

While NI provides a framework for understanding why states engage in institutions and their proliferation in recent times, even NI scholars admit that “we do not adequately understand in what domains [institutions] matter most, under what conditions, and how their effects are exerted.” (Keohane and Martin 1995, 50) Moreover, NI does not contend that institutions always matter and acknowledge that cooperation between countries can occur outside of institutions. (Axelrod and Keohane 1985, Keohane and Martin 1995, Young and Levy 1999) NI scholars also agree that institutions can reflect interstate power asymmetries combined with power realities, both of which are dynamic, indicating that the political context of a situation matters and how institutions matter will differ. (North 1990, Keohane 1989, Keohane and Martin 1995, Ikenberry 2000) Thus, we need to take a closer look at specific institutions, like the LAS, under what contexts that they matter, and get a better understanding of when and how they matter.

The next section discusses a specific types of institutions and the history of their emergence globally to create a framework to tackle the research question of what roles the LAS has played in transboundary river water conflict and cooperation. Most relevant

to understanding the LAS and its institutional framework, the following section expounds on IGOs, the most commonly thought of institution that guides interstate interactions, and the advent ROs. Through a study of extant literature on IGOs and ROs more broadly, three main roles tend to emerge for these institutions: they provide rules, forums, and resources, that can make it easier for states to continue their interactions instead of having to ad hoc establish meetings, provide administration, and earmark funding or other tools for their foreign policy priorities. This discussion about institutional roles helps to formulate hypothesis 1 about the different capacities in which the LAS might have played a role in international river water conflicts and cooperation.

### **2.2.2 Intergovernmental Organizations (IGOs) & Regional Organizations (ROs)**

When NI refer to institutions with regards to broad, multilateral state interactions, they are often referring to IGOs, such as the LAS. IGOs involve at least three states and are engaged in activities in several states; (Martin 2001, Karns and Mingst 2010) as mentioned earlier, the LAS involves 22 states and coordinates some activities among all of its members. “IGOs are, additionally, established by treaty and usually, in order to safeguard state sovereignty, operate at the level of consent, recommendation, and cooperation rather than through compulsion or enforcement.” (Bennet 1995, 3) This emphasizes the voluntary nature of IGO membership and adherence to principles or rules established by IGOs; after all, IGOs exist because of the lack of a worldwide government. The lack of an overarching authority to enforce rule compliance makes it difficult for IGOs to use diplomatic, economic, or military sanctions, but they are sometimes able to employ these incentives and punishments and achieve mixed results from the states they are seeking to influence. Diplomatic and economic enforcement mechanisms tend to work gradually and their effectiveness often depends on their ability to shape public opinion of the citizenry in the hopes that it will pressure the offending government to comply. However, this shift in public attitude may not happen, or even if it does, it might

not be able to influence the government to change course, especially in the case of non-democratic governments. The use of military sanctions, because they are often the last resort, tend to require unanimous approval in many IGOs and are often dependent on the willingness of other member states to provide the military resources and coordinate security matters with each other. (Kirgis 1996) IGOs tend to have a large number of members, which also presents a conundrum, because the higher the number of participants, the more difficult it is on average to use an IGO to resolve conflict because of the multitude of stakeholders. (Martin 2001) This underscores that IGOs may not be more effective at resolving issues than smaller groups of stakeholders and explains why IGOs sometimes encourage subsets of actors to mediate and manage their own disputes; sometimes agreements between a few members can be used as models to expand to more and more actors within the IGO.

While international organizations existed before the 1940s, they were not prevalent. Many IGOs were created following WWII, including the LAS, for a range of reasons stemming from the decolonization of territories and the solidification of states, shifts in the attitudes of national governments, and technological innovation. The international system needed to stabilize into functioning states before more lasting institutions were established to guide their interactions, and the numerous wars between European nations—from which the bulk of states emerged—comprised a rapidly changing group of governments, boundaries, and constituencies. Governments also had to come to a realization that IGOs were useful tools and they needed to develop greater interest in international engagement; the rise of trade and transportation played important roles. Moreover, after suffering historic losses in WWI and WWII, states sought to create frameworks for cooperation to encourage peaceful resolution of intergovernmental conflicts and avoid another war. (MacDonald 1965, Archer 1992, Haas 1990, Bennett 1995, Pease 2008, Karns and Mingst 2010) As Bennett explains, “Both the League of

Nations and the United Nations were created near the end of the greatest wars of the century primarily to act as instrumentalities for eliminating armed conflict and for strengthening means for conflict control and resolution.” (1995, 103)

As the Cold War started to take root—some argue it was as early as 1946<sup>v</sup>—state blocs started to form within the international system, some aligned with the Eastern Bloc including the Union of Soviet Socialist Republics (USSR), Central European countries, and Eastern European countries; others aligned with the Western Bloc, including the United States and other western countries. This development in the international system encouraged many states to join groupings solely with other states that were already in their bloc, or the existing states attempted to woo other states to their bloc; as a result, the cleavage deepened in the international system. Of the Arab countries, for example, Iraq opted to join the Baghdad Pact of 1955, led by Great Britain, which was very controversial within the Arab world because of Iraq's alliance with non-Arab countries and a former colonial power. However, there were other states who chose not to align with either bloc, co-led by Egypt, coalescing together in a Non-Aligned Movement that sought to protect the interests of developing countries from either bloc.

More ROs emerged after the Cold War ended, largely because the international system was no longer split along bipolar lines and two competing agendas. In fact, most IGOs are ROs. The UN in its beginning stages with its charter document in 1944 empowered ROs to be the mediators of regional conflicts of first resort, it stipulated that the UN would not “preclude the existence of regional bodies for dealing with such matters relating to the maintenance of peace and security as are appropriate for regional action . . . [and that] the Security Council should encourage local settlement of disputes through such regional arrangements or by such regional agencies.” (Washington Conversations on International Peace and Security Organization 1944, Chapter 8, Section

C, n.pag.) This includes the LAS, making it the mediator of first resort for the Arab world.

Despite the variations in IGOs and ROs, there are similarities in their decision-making processes. Most IGOs and ROs follow the principle of sovereign equality, meaning each state is considered equal to another state and is given one vote. Up until the the last century, most IGO decisions were typically unanimous because most states would not agree to votes based on majority to finalize decisions; this made it more difficult for IGOs to issue resolutions. Since the 1980s, however, most IGOs make decisions based on consensus, allowing states to abstain from voting while not blocking a decision from going forward. (Karns and Mingst 2010) The LAS, however, continues to make decisions based on unanimous votes for most issues, making it difficult for the body to issue resolutions, as to be discussed in more detail in chapter 5. Achieving consensus among Arab states before taking any action is considered one of the foremost priorities of the LAS. So what are the different institutional facets of IGOs and how do these roles inform the focus of this study?

Three overarching roles emerge from extant literature on IGOs: as rules-based bodies, they serve as a regulator; they provide a forum for information exchange and technical assistance; and they pool and provide intergovernmental resources that can be used to address member issues. These roles are not exclusive and can overlap. This study uses these three roles as the subject of this study about if, how, and when the LAS has filled any of these roles in transboundary river water disagreements or cooperative acts.

In terms of serving as a regulator, institutions provide space for states to come together and define what behaviors among themselves are desirable and undesirable, creating international standards and rules for conducting state affairs. This regulatory framework, the basis of an IGO or RO, permits them to serve as monitors and enforcers between states and help states that comply enhance their international credibility. This

role of institutions can allow it to serve as a deterrence for undesirable state behaviors as governments may fear investigations and the punishments that may result; states establish and grant institutions the authority and tools to punish non-compliers through actions such as sanctions. However, “most IGO actions are in fact recommendations. Their effectiveness lies in the other actors' willingness to make and comply with commitments.” (Karns and Mingst 2010, 17) This is also true with the LAS in that member states are not expected to implement resolutions unless they voted in favor of them, to be discussed more in chapter 5. In addition, IGOs “generally have no independent means of carrying out coercion.” (Bennett 1995, 3) Likewise, with the LAS, when member states opposed Egypt's decision to sign a peace treaty with Israel, the only recourse they had was to expel Egypt from the LAS and move the LAS's headquarters from Cairo to Tunis. These points underscore that the majority of IGOs and ROs, including the LAS, lack teeth; states have often agreed to join such organizations on the guarantee that their sovereignty will largely remain in tact, meaning that the degree to which IGOs and ROs can enforce their sanctions—if they even have an ability to use them—will vary from organization to organization, by issue, and on a case-by-case basis. On the other hand, because the LAS agrees not to impinge on members' sovereignty, it has successfully encouraged all states that identify as Arab to join the group, expanding their representation and enhancing solidarity in the Arab world.

As a forum for information exchange, IGOs can provide a diplomatic arena for state governments to defend their views on a wider stage than if they were engaged in bilateral discussions. As Bennett points out, IGOs and ROs “provide multiple channels of communication among governments so that areas of accommodation may be explored and easy access will be available when problems arise.” (1995, 3) This is certainly true of the LAS, where they bring member states' representatives together to discuss Arab interests and courses of action, including with each other and with non-Arab neighbors.

IGOs and ROs can give voice to less powerful states or even non-state entities to voice concerns and seek partners. Similarly, with the LAS, each member state has one vote for resolutions regardless of their political, economic, or military power relative to other members, giving less powerful Arab states equal representation as compared to more powerful Arab states. IGOs can also facilitate the exchange of expertise, coordinate research, offer technical advisory services and policy recommendations, and help states to agree on terminology central to defining shared problems. (Finkelstein 1974, Haas 1990, Archer 1992, Schiff and Winters 2002, Coppee 2011) They provide established interstate spaces for dialogue and transactions to synergize the knowledge of different peoples and fields, providing an important space to hash out and make progress on societal and scientific issues. They also serve as an advocate for its members' collective decisions to other regional and international organizations. The LAS has a myriad of technical arms to provide such assistance to member states, to be explained in more detail in the chapter 5.

Lastly, IGOs are a venue through which states can pool and reallocate their resources to tackle issues of interest to multiple states, establishing financial, administrative, and security tools to address member issues and foster good will among member states. (MacDonald 1965, Haas 1990, Archer 1992, Ruggie 1992, Schiff and Winters 2002, Coppee 2011) For example, they can provide financing for development projects or other programs of mutual interest, supply staffing to facilitate interstate interactions and coordination of international policy implementation, and they may furnish peacekeeping forces and other security services aimed at reducing violent conflicts or defending members' interests. The LAS, likewise, has a secretariat to provide administrative assistance, several financial assistance sub-organizations, and has provided military forces to member states during times of conflict, to be expounded on in chapter 5.

In sum, IGOs provide incentive and constraint frameworks for repeated inter-government transactions that more clearly delineate the benefits and costs of engaging in desirable and undesirable behaviors to shape states' foreign policy approaches; provide states a political space to deliberate what international guidelines and principles there should be and exchange technical expertise; and coalesce and allocate state resources to meet shared objectives. IGOs can provide an important coping mechanism for states in an increasingly globalized world and can give more equal footing to less powerful states, altering the power dynamics of the international system and at times facilitating cooperation that would not be possible if states were acting independently. However, as noted in the previous chapter, we should anticipate that states do not always work through institutions because it depends on how they define their interests and how they perceive that IGOs can help them to meet their objectives. Combining the realist idea that states only sometimes act through institutions and the NI notion of the three key roles that IGOs have to play leads me to postulate the following about the LAS's involvement in international river interactions:

*H1: The LAS has sometimes been engaged in regional transboundary river water conflicts by serving in one or a combination of three different capacities: as a regulator that shapes regional principles about the management of cross-border river waters; as a forum for deliberation, for the presentation of sides, and for technical assistance and information exchange; and as a pooler-provider of resources to support river water development projects and protect Arab river water access and quality.*

### **2.3 Social Constructivism and Interstate Conflict & Cooperation**

As mentioned in the previous section, the LAS is an institution made up only of states that identify as Arab, underscoring that identity is the linking factor among all of its members and that the Arab identity could be an important underlying factor that helps to

elucidate why there have been few inter-Arab violent conflicts over transboundary river waters. Thus, it is imperative to consider the contributions of extant literature on how identity politics can shape interstate policies: social constructivism in IR. Social constructivism adds to the realist-NI debate by explaining why states sometimes view other states' interests as inherently linked to their own and sometimes act to protect or fight on behalf of other states' interests even though it is costly to them. It helps to explicate how states may define welfare in non-economic terms. Like realism and NI, social constructivism views states as the main actors in the international system and the subject of analysis and concerns of sovereignty are still sometimes paramount. (Onuf 1989, Wendt 1994) Similarly, foreign policy decisions are not always predictable by rational choice models and states do not consistently calculate payoffs or costs of certain policies the same, as highlighted by realist and NI thinking. States do not always view each other as enemies but sometimes view each other as natural allies. Identities are an important source of state interests and moralistic concerns about the welfare of other states or peoples, especially those with similar identities, and can be a driver of foreign policy decision-making. Because of these shared identities, alliances with other states can be long lasting and not simply transactional relationships to maximize material welfare or power.

Social constructivism provides an important theoretical framework to understand how national identities provide important constraints and incentives that shape states' interests and cooperative or conflictual foreign policies. While early social constructivism had its roots in the 1950s, social constructivist theories became prevalent in the IR field in the 1980s, in part because of the end of the Cold War, since neo-realism and neo-liberal institutionalism failed to predict or account for this development. There is an epistemological debate about whether social constructivism has yet developed into its

own theory. (Ruggie 1998, Guzzini 2000, Adler 2002, Fearon 2002) Thus, I refer interchangeably to social constructivism as a theory, paradigm, or concept.

Social constructivists argue that these rationalist or utilitarian theories ignore the importance of where state interests come from while trying to explain whether states choose foreign policy paths of peace or war and the social contexts that shape them and their governments' reasoning. The neo-realists and NI scholars take the international system as a constant given formed by unknown external factors, rather than a dynamic system with the interaction of its components shaping understandings that in turn, effect foreign policy choices. IR social constructivists build on these rationalist theories by helping us to consider how social contexts matter in shaping the international system; how collective identities form and persist, especially across state boundaries, and give meaning to actions within the international community; and how these identities in turn shape interests and are constantly being constructed through interactions of actors in the international system, which helps to explain change in the regional and global political environments.

These social constructivist ideas suggest that Arab and non-Arab identities at least sometimes matter in Middle Eastern governments' thinking and approaches to managing scarce transboundary river waters. It also suggests that an identity-based institution like the LAS may be an important conduit for states who view their Arab identities as salient to jointly managing their foreign hydropolicies. These concepts are key to the formations of hypotheses 2 and 3, regarding the LAS's involvement on average in cooperation with Arab states and in conflicts with non-Arab states.

### **2.3.1 Social Contexts in the International System**

IR social constructivists argue that an important determinant of the international system's structure is social context because states are made up of a collective of individuals with a multitude of identities, and this interplay of actors' (states', peoples',

non-state agents') identities and resulting interests needs to be studied in addition the to the rationalist theories' focus on material-based structures. Rationalist IR theories focus on selective incentives and constraints or exogenous interests: factors generated outside of the state that actors are presented with which shapes their foreign policy decisions to either engage in conflict or cooperation. A government chooses to act and its courses of action are determined by its allotment of resources and its quest to obtain more of these resources, sometimes relative to other actors in the international system, including money, weapons, and technology. Power is derived from the state's resource holdings. Governments do not self-identify their welfare with or detriment to that of other countries in terms, other than holdings of material goods and the subtraction or addition of those goods relative to their own, and what it means for the balance of power in the international system. Interests aren't shaped by social concepts, such as identities, because a state's focus in maximizing its material resources and/or power. (Onuf 1989, Wendt 1994, Ruggie 1998, Telhami and Barnett 2002, Glaser 2010)

In contrast, social constructivists assert that while material and exogenous interests can matter in shaping foreign policy decisions, social context also matters, and can be an important and dynamic influence on international structure. LAS members self-identify as Arab; so how do they view themselves and other LAS member states in the context of the international system and why does that motivate them to act collectively, sometimes against non-Arab states? IR constructivism highlights that knowledge is constructed through repeated social interactions, that our worldviews are not based on objective realities but that our repetitious transactions with each other continually construct our understanding of the world, how we view ourselves, how we view others, and therefore influence how we choose to act. It is these understandings that undergird international norms and rules about interstate interactions, forming the basis of institutions that NI theories focus on. "Social identities are sets of meanings that an actor

attributes to itself while taking the perspective of others, that is, as a social object.” (Wendt 1994, 385) In fact, they argue, our perception of the international system is key to the existence of the state and the larger international system: sovereignty only exists because actors acknowledge and recognize other actors or states as autonomous entities. Moreover, material objects' meaning is derived from the agent's perspective and the identities of themselves relative to others; material objects can lose their power if they are not perceived by actors to have power. (Onuf 1989, Wendt 1994, Wendt 1995, Ruggie 1998, Guzzini 2000, Adler 2002, Telhami and Barnett 2002, Hurd 2008) LAS members have repeatedly interacted with each other under the auspices of the LAS, but little is understood about how the LAS has influenced these transactions and those with non-member states.

### **2.3.2 Formation of Transboundary Collective Identities**

IR social constructivists point out that states are a type of composite identity but that identities also permeate state borders and can be constituted before or after a state's territory is delineated, which can affect cross-border interactions. The Arab identity transcends state borders, to be discussed more in chapter 5; it is this cross-border affiliation that undergirds the membership of the LAS. The state itself is a kind of corporate identity, as explained by Alexander Wendt, in which “constituent individuals, physical resources, and the shared beliefs and institutions in virtue of which individuals function as a 'we.’” (1994, 385) Indeed, identities are shaped by a broad set of factors both material and immaterial and take shape through human processes. Moreover, Wendt explains that identity should be conceived of as “a continuum from negative to positive—from conceiving the other as anathema to the self to conceiving it as an extension of the self.” (1994, 386)

Social constructivists highlight that interests are not just material; they are shaped by identities. Who is defined as an enemy or friend in the international system is a social

function derived from shared understandings, concepts which also define state interests. Every identity is developed around differences of other identities, even though they still sometimes overlap, and can facilitate the social construction of outside groups that do not fall within the collective identification of a group. (Ruggie 1998, Telhami and Barnett 2002) Social constructivism, in this facet of the paradigm, does a better job at explaining international conflict than NI, which focuses on international cooperation and the role of international institutions in it. As Wendt explains:

“What states do to each other affects the social structure in which they are embedded, by a logic of reciprocity. If they militarize, others will be threatened and arm themselves, creating security dilemmas . . . But if they engage in policies of reassurance, this will have a different effect on the structure of shared knowledge, moving it toward a security community.” (Wendt 1995, 77)

However, Wendt also points out that the significant militarization of a state that another state identifies as an ally does not always become perceived as a threat, whereas, just a small boost in the material military capabilities of a state viewed as an enemy could be perceived as a major security concern. Perceptions matter. Therefore, considering the social construction of the international system has important implications for international conflict and cooperation between nations, the focus of this study.

Social constructions can effect norms and what policies are seen as possible options and can be important to understanding transnational and security communities, in which states choose to come together to protect each other—not necessarily because of material benefits to be gained—but because they share the same enemies or hold the same values. (Deutsch et al. 1957, Onuf 1989, Wendt 1994, Barnett 1996, Alder 2000, Telhami and Barnett 2002) One of the earliest studies that took an IR constructivist approach originated from Karl Deutsch, Sidney A. Burrell, Robert A. Kann, and Maurice Lee Jr., in which they looked at ten case studies of groups of North Atlantic states that attempted to form security-communities to better understand how governments and humanity might move towards abolishing war. They defined a security-community as “a

group of people which has become integrated by [developing] . . . a 'sense of community' and of institutions and practices strong enough and widespread enough to assure for a 'long' time, dependable expectations of 'peaceful change' among its population.” (1957, 123) They found that the most integrated sets of territories, which actually amounted to a federation as in the United States, had the most effective and durable security-communities if they had a common set of values and frequent communications and transactions. Moreover, they underscored the importance of learning in the international system, which typically takes place gradually over time through regular and ongoing contact between peoples, and its foundation of the ability of security-communities to effectively integrate. The LAS can be understood as a security-community that has a long history of fostering Arab state communications and transactions.

### **2.3.3 Changing Interests, Identities, & the International System**

Social constructivists argue that the structure of the international system is shaped by time and space, both of which are influenced by human perceptions. The shifting dynamics in the international system are in part affected by the multiple social identities that are formed and become more or less salient over time, which in turn, affect changes in interests and developments in institutions. (Onuf 1989, Wendt 1994, Ruggie 1998) Most Arab states and non-Arab states in the Middle East and Africa are fairly new creations and their boundaries have only been recently established by outsiders, yet those boundaries sometimes influence their understandings of their peoples and out groups. This is in contrast to the realist and NI scholars, who assume that identities and interests are shaped by external factors; change only occurs because of changes in holdings of materials. These utilitarian theorists assert that a theory to explain change in the international system is unnecessary because regardless of identities, the same incentives and constraints will apply to the system. While NI scholars acknowledge the importance of states' anticipations that recurrent interactions will shape their long term relationships,

they don't explain the dynamics of these interactions other than it might prompt states to choose to establish and use institutions. Social constructivism, on the other hand, helps to elucidate why we might see states align or disagree with each other because of non-material holdings and underscores the importance of looking more closely at these dynamics within institutions, such as the LAS, over time.

Perhaps one of the most interesting foreign policy implications highlighted by social constructivism is that because our repeated social interactions are constantly shaping our decision-making, it views the international system as a much more dynamic place. It is “a world that is broader, more contingent, more unexpected, more surprising and endowed with more possibilities” compared to the world perceived by realist and NI scholars. (Adler 2002, 100) The development of identities are essentially formed by constant, interpretative debate between peoples, societies, and states, which means that identities may shift and manifest themselves in different ways, especially as these actors seek to understand their changing environment and world events. (Telhami and Barnett 2002) IGOs, such as the LAS, can provide a space for dialogue about shared identities and facilitate such interpretive debate. This paradigm asserts that while states are self-interested, they continuously define and re-define what that means based on their identities. However, “to say that structures are socially constructed is no guarantee that they can be changed. Sometimes social structures so constrain action that transformative strategies are impossible.” (Wendt 1995, 80) We can understand that this is what sometimes leads to protracted conflict; transforming mindsets is difficult and often gradual. It helps to elucidate the protraction of the Arab-Israeli conflict in particular, since the Arab and Israeli governments view their interests as sometimes diametrically opposed because of their different identities.

In sum, social constructivism in IR argues that shared identities transcend political boundaries and are an important influence on states' foreign policy choices; states with

peoples who have common identities tend to collaborate more and feel less threatened by each other, while states with constituents with different identities tend to experience more conflict. Thus, based on these arguments, we can anticipate the following:

*H2: On average, the LAS has had conflictive interactions between Arab and non-Arab states.*

*H3: On average, the LAS has had cooperative interactions among Arab states.*

Social constructivism also highlights that identities do shift and weaken sometimes, however, making it important to consider the increasing and decreasing salience of connections with others; this idea is explored more in chapter 5, which establishes a timeline for high points and low points in Arab nationalist identities.

## **2.4 Summary: Conflict & Cooperation in International Relations (IR)**

In sum, all three paradigms suggest that the LAS might sometimes play roles in transboundary river water conflict and cooperation; that the capacities in which it is involved in cross-border riparian interactions might change over time; and that states' willingness to cooperate with each other and engage under the auspices of the LAS will be influenced by a variety of factors—highlighting the importance of this study's approach in tracing the LAS's historical involvement in this issue area. However, past these similarities, these paradigms offer different key concepts to help inform my hypotheses. First, realism points out that power and resource differentials between states matter in terms of state decisions about whether to escalate disputes or cooperate with others, that states might not always seek to act through institutions like the LAS, and that states will often prioritize their sovereignty above all else. This theory helps primarily to explain how cross-border river disagreements arise. Second, NI builds on and challenges this paradigm, asserting that the international system is not completely archaic and that IGOs like the LAS can help states to achieve more welfare-maximizing results and that they might sometimes be willing to give up some power to produce these better

outcomes. The LAS is a body that its members can use to influence the other members in ways that may be easier, more effective, and less costly than acting bilaterally and can create new possibilities for states' foreign policies. Importantly, three main roles arise from extant NI literature on the roles of institutions: they serve as interstate regulators, as forums for information exchange, and as banks for state resources that allow interstate redistribution of resources to achieve shared goals. These three main roles identified by a review of existing studies on IGOs and ROs serve as the focus for this study: to examine how the LAS has served as a regulator, forum, and resource pool and redistribution center for transboundary river water disputes and acts of cooperation. NI offers insights about the material benefits that can prompt governments to choose to collaborate in the management of transboundary river waters. Third, social constructivism further builds on these previous bodies of literature by helping to explain the importance of identity in shaping state interests and explains why governments might cooperate absent material gains or despite anticipated losses. It elucidates why states might identify other states as the “other” and have more antagonistic foreign policy approaches towards them. These points help to illuminate possible reasons why Arab states have had more violent interactions with non-Arab states over transboundary river waters, especially Israel, and why they have had relatively more collaborative acts between each other.

Building on our understanding of the potential of institutions' influence on state relations and the roles that the LAS may have played over time in interstate transboundary water interactions, the next section expounds on extant environmental conflict literature that there have been no wars solely attributed to environmental conflict, largely because environmental degradation tends to be gradual, but also points out that many violent interstate interactions are spurred in part by an international environmental dispute. Resource scarcity tends to be the main driver of environmental conflict and that

international institutions are key to the ability to manage interstate environmental conflicts, including over shared river waters.

### **3. ENVIRONMENTAL CONFLICT, COMPLEXITY, & INTERDEPENDENCE**

As noted earlier, cross-border river water conflict—like other environmental conflicts—has historically been an interdependent variable in the Arab region and the world that exacerbates tensions and can worsen broader conflicts that lead to violence, but to date has not been the single cause of any wars. This raises the question about what insights extant literature on environmental conflict and water disputes can offer about how natural resource conflicts can catalyze and protract broader conflicts; why and how such water and environmental disagreements sometimes become violent; and what lessons from extant literature are applicable to the Arab world that help to explain why so many of the world's violent interactions over river waters have been between Israel and one of its Arab neighbors.

Environmental conflicts tend to be insidious, pervasive, and usually revolve around competition over the allocation of a finite natural resource, such as river water, between groups.<sup>vi</sup> No armed conflicts to date have been solely attributed to a natural resource scarcity grievance, but such complaints have frequently been combined with other sources of resentment that have led to violence. (Chourcri 1995; Ohlsson 1995; Homer-Dixon and Blitt 1998; Homer-Dixon 1999; Kahl 2006; Stewart and Brown 2007) In fact, approximately half of all armed conflicts between 1945 and 2006 included an environmental factor as a driver (Jeong 2010) and nearly every community at times experiences an environmentally-based dispute. (Dukes 2004) Much of the literature on environmental conflict stresses that environmental degradation and the increasing

scarcity of natural resources can or could generally exacerbate conflicts, when combined with other socio-political exogenous variables such as ethnic cleavages, economic hardships, and refugee migrations. (Ohlsson 1995; Homer-Dixon and Blitt 1998; Homer-Dixon 1999; Kahl 2006; Stewart and Brown 2007) Thus, we can understand environmental grievances as an interdependent variable of violent conflict, which can worsen or compound other variables, potentially exacerbating and even protracting a wider conflict.

Clearly, environmental disputes have wide ranging, compounding effects on other grievances, meaning that environmental conflicts exhibit both interdependence and complexity. Any ecosystem is comprised of a range of natural resources and a small change in one—especially one as vital as water—can lead to drastic changes in all the other components of an ecosystem, not to mention overlapping social, political, technological, and economic systems. (Choucri and Bennett 1972; Skolkoniff 1994; Elhance 1999; Homer-Dixon 1999; Young and Levy 1999; Turton 2002; Kahl 2006; Jeong 2010; Islam and Susskind 2013) This interdependence and complexity also means that stakeholders' actions—in this case, Arab and non-Arab riparian partners—are more likely to affect one another's access and quality of a natural resource, heightening the stakes for competition and cooperation in environmental management.

While physical violence may not manifest over this competition for resources, structural scarcity can lead to structural violence as one group, such as a country or set of nations, controls access to a finite resource. In fact, scarcity for a resource can arise in three ways: because of an increase in demand, a decrease in supply, or structural scarcity. First, supply-induced scarcity arises from the decrease in the quantity or quality of a natural resource, for instance, because of environmental change and degradation. Second, demand-induced scarcity is caused by an increase in demand because of population or economic growth, for example. Third, the first two types of scarcity interact to produce

structural scarcity, in which a segment of a society controls and excludes another segment of the society from access to desirable natural resources. (Homer-Dixon and Blitt 1998)

Structural violence—in which a “person's [or the people of a riparian country's] physical and mental realizations are below their potential realizations” (Galtung 1969)—can result; they suffer from lack of access to the natural resource. Thus, understanding the different manifestations of scarcity, with special attention to structural scarcity, is critical to understanding how environmental conflict emerges and to developing a sensitivity to the social dynamics which interact and spur conflict. This also explains why we historically have observed less extreme, less violent indications of disagreements over scarce resources, such as river water, instead of outright battles. These different ways in which resource scarcity can emerge furthermore suggest that better understanding what causes environmental conflicts, including river water disputes, could help to diffuse larger-scale conflicts that could turn violent, underscoring that this is an important issue for the CAR field to research.

The importance of interdependence and complexity in the use of natural resources are illustrated in the classic “tragedy of the commons” dilemma, which highlights the problems of the management of shared resources without any constraints when actors seek to maximize their welfare. Rational actors acting in their own interests will degrade and use up a common-pool resource (CPR) over time so that it ceases to provide for anyone; every actor focuses on their own consumption. According to this dilemma framework, a strong central management authority—such as an Arab state government or IGO—is critical for sustainable management of CPRs because a community could not rely on the morality of its people in their decision-making processes; actors tend to be rational and self-interested. (Hardin 1968) While this thought experiment ignores the potential for non-governmental actors to play an important role<sup>vii</sup>, it is useful in underscoring the necessity to create incentives and disincentives to shepherd consumers

of a natural resource towards sustainable practices. This principle applies to the joint use of rivers, because users can extract a large quantity of water for consumption, divert the river, pollute the river, or otherwise mismanage the river because they are seeking to maximize their welfare. However, rivers are unique CPRs in that they mostly flow in a certain direction, meaning that the management of the river upstream has a larger impact on downstream users. Self-interested actors may become more competitive to ensure their supply of a natural resource as it becomes more scarce and this competition can lead to structural scarcity and structural violence, which is key to fomenting grievances and is the insidious way in which environmental violence tends to play out instead of outright wars. The subtle manner in which many environmental conflicts develop over common pool resources adds impetus to the need for careful examinations about how such disagreements have manifested over a series of years and across watersheds, such as the focus of this study.

### **3.1 Natural Resource Scarcity, Adaptation, & Conflict**

As noted in chapter 2, institutions are useful for helping to reduce uncertainty between states, especially over long time periods, while providing forums to discuss options, and offer technical and financial assistance to help cope with changes, factors that can be especially relevant to addressing environmental conflicts. The interdependence and complexity exhibited by environmental factors, combined with the lack of historical precedence for environmentally-driven violent conflict, means that it is difficult to estimate exactly when a people will run out of a vital natural resource and in what circumstances this resource deficiency will lead to conflict. “There are considerable statistical uncertainties pertaining to population projections and estimates of the earth's carrying capacities, and there are economic, political, and cultural uncertainties concerning potential resources” to help manage, plan for, and mitigate such shortfalls. (Choucri and Bennett 1972, 177) Not to mention, physical characteristics of ecosystems,

in addition to varying societal factors across spaces, make it difficult to develop a generalizable theory that holds true across different ecosystems.

As a result of these uncertainties, environmental conflict literature largely tends to be divisive about whether conflicts over natural resource scarcity will become more acute or humankind will be able to adapt and technologically innovate to solve environmental problems, and whether such developments will worsen conflict or be used as an opportunity for collaboration. One apparent trend is that many renewable resources, such as river water, are being consumed at a pace faster than they can be naturally replenished, suggesting that such natural resource scarcity is likely to become more acute over time without changes to human practices. (Homer-Dixon 1999) In the case of river water, all three of the aforementioned causes of scarcities can be present. In fact:

“the Near East and North Africa Region is naturally exposed to severe shortages of water and will be exposed in the coming decades to an unprecedented severe escalation of water scarcity . . . per capita freshwater availability has decreased by 2/3 over the last forty years and will probably decrease by another 50% by 2050. This trend will be further exacerbated by the projected population growth and the negative impact of climate change, drought, and the considerable degradation of water quality. The relevance of transboundary water resources in the Region will add considerable strain.” (Towards a Regional Collaborative Strategy on Sustainable Agricultural Water Management and Food Security in the Near East and North Africa Region 2015)

So, what does extant literature suggest about humankind's ability to adjust to its environment of finite resources as demand for such resources tends to grow to mitigate conflict? Some like the Malthusians and neo-Malthusians highlight the limited number of vital natural resources in the world and a growing human population; they argue that humankind could use up all of these resources to a point of self-destruction. While these Malthusian doomsday scenarios have not come to pass, they have raised important questions about humankind's growing consumption of scarce natural resources and highlighted that people may have to change their usage patterns to avoid significant hardships of future generations. Others, like the resource optimists, contend that

humankind has historically been able to adapt to changing circumstances and will figure out how to deal with any resource scarcities that arise. They point out that the use of institutions, such as IGOs, ROs, governments, and economic markets, have been important to humankind's ability to shift demands and create innovative technologies to cope with a lack of natural resources. Lastly, the Toronto School paradigm builds on these two paradigms, by emphasizing that there are impediments that we must take into consideration to a society's ability to adapt to natural resource scarcity and that collective action to solving such problems is of paramount importance; institutions and the ability to make inclusive group-decisions can be a vital tool to overcoming governments' and peoples' obstacles to cope with resource scarcity. In conclusion, all three of these paradigms have lessons to offer about transboundary river water conflict in the Arab world, but the Toronto School provides the most balanced and pragmatic framework for thinking about environmental conflict and transboundary river water conflict in the Arab world. The Malthusian and Neo-Malthusian explanation on population growth as a stress on the environment and river water availability has particular relevance to the Arab world, which has long experienced explosive population growth and as mentioned in the beginning, is the most water scarce region in the world. The resource optimists and the Toronto school's emphasis on human ability to harness innovation, technology, and ingenuity also plays an important role in being able to cope with environmental stresses; in recent years, desalination in some of the gulf states are helping to increase freshwater supplies to help substitute for river water. The Toronto School's emphasis on the roles of international and regional organizations, like the LAS, to help incentivize better management of a scarce natural resource like river water and provide the technical assistance to drive innovative technologies to help cope with an insufficient amount of water underscore the importance that the LAS may play in such issues.

### **3.1.1 Malthusian & Neo-malthusian Theories on Natural Resource Scarcity**

The work of Thomas Malthus (1789) is often pointed to as a seminal hypothesis that has shaped thinking on environmental conflict; he raised concerns about a growing population and a finite number of natural resources on Earth to meet the needs of humans who instinctively feel an urge to reproduce. He postulated that humankind will continue to procreate at a high rate until humans have consumed all of the subsistence that the Earth has to give, or its “carrying capacity”, asserting that humankind's need for food will be the “ultimate check on population growth.” (6) Malthus concluded that if humankind failed to check its population growth rate sufficiently, that catastrophes such as famine, epidemics, and war would result, and lead to humankind's demise. Malthus's work highlighted a key issue that remains relevant for consideration in environmental conflict studies centuries later: a large world population and its consumption of natural resources places a stress on the environment which can cause a significant deterioration in living conditions and lead to conflict. The empirical contradictions gave rise to another paradigm which sought to explain some of the shortcomings of Malthusianism, resource optimism.

### **3.1.2 Technology, Adaptation, & Ingenuity**

Academics from another school of thought, also known as economic or resource optimists, or “cornucopians” point out that man has managed to overcome predicted natural resource barriers in the past, by making changes in natural resource consumption patterns and innovating new technologies and practices. They paint Malthusian and neo-Malthusian paradigms as being too alarmist. Instead, as explained by Urdal (2005), they argue that “most debated natural resources are not really scarce . . . in a global context,” “that humankind will be able to adapt to [scarcity],” and “that it is the abundance of natural resources, rather than scarcity, that leads to violent conflict.” ( 419) Cornucopians point to the technological advances that spurred the Green Revolution of the 1960s and

1970s. The developing world's food crop productivity in the past fifty years has actually increased exponentially in spite of increasing land scarcity, except in Sub-Saharan Africa. (Pingjali 2012) Resource optimists say that market incentives will encourage innovation and the redistribution of resources and they point to increasingly globalized economic markets that can facilitate exchange of some natural resources between countries with an excess and those with a deficit. Therefore, we can see that humankind's ability to innovate and adapt to environmental scarcity historically has and will continue to be an important factor to mitigating conflict over scarce natural resources and self-assured destruction.

### **3.1.3 Toronto School**

The Toronto School, led by Thomas Homer-Dixon, is the most dominant paradigm on natural resource scarcity and violent conflict to date and combines elements of the previous two schools. It highlights that while ingenuity and technologies can help mitigate natural resource scarcity that can contribute to violent conflict, not all societies can easily adapt to such circumstances. They might lack the financial or scientific resources, cultural flexibility, and robust and inclusive institutions necessary to foster innovative responses to environmental challenges between competitive groups. (Homer-Dixon and Blitt 1998, Homer-Dixon 1999) This paradigm concludes that natural resource shortages can lead to violent conflict when there is market failure, social friction, and an inadequate supply of financial and human capital to manage the inadequate supply of resources. These researchers find that poor countries, which tend to lack government revenues, experience brain drain, and have inadequate education systems, are more likely to see natural resource paucity lead to violence. They posit that different combinations of these factors can manifest in five different effects: “constrained agricultural productivity, constrained economic productivity, migration, social segmentation and the disruption of legitimate institutions.” (Homer-Dixon and Blitt 1998, 9)

Sometimes, technical solutions are available but not implemented because of cultural opposition and the lag in developing countries' ability to manage the gap between resource demand and supply compared to developed countries. (Choucri and Bennett 1972, Diamond 2005) People may not be willing to change their consumption habits because they are unwilling to change their cultural traditions or ways of life, even if they know their use of resources is unsustainable. Thus, the Toronto School concludes that we cannot rely on our ingenuity alone to deal with environmental scarcity problems that are projected to befall humankind, but suggest that institutions like the LAS are tools that can sometimes help to improve the management of scarce resources and facilitate the exchange of knowledge and technical advancements.

#### **2.1.4 Summary: Environmental Conflicts Are Insidious, Institutions Can Help to Mitigate Them**

In conclusion, extant literature on general environmental conflict across the world has several important insights to help contextualize and bolster our understanding of transboundary river water conflict and cooperation in the Arab world and the potential roles that the LAS may play in regional interstate transactions over this natural resource. Most forms of environmental degradation tend to be gradual, which helps to explain why conflict over natural resources has not yet led to violence in and of itself in interstate interactions to date. However, when environmental conflict combines with other irritants in an international relationship, it can worsen existing conflicts and contribute to state decisions to use violence. The Malthusian and Neo-Malthusian paradigms also help to explain why a high population growth rate—a problem faced by the Middle East for most of the years of study—might have contributed to an already-contentious relationship between Arab and non-Arab states and could be a factor in why most violent transboundary river water interstate interactions have happened in this region. Yet, resource optimists point out that technology and ingenuity also play a role in whether

resource constraints and conflicts worsen the Toronto school adds that environmental conflicts can be mitigated or diffused with the use of effective institutions that can provide financial and scientific resources, create proper incentives for resource management, and facilitate group decision-making. Given the historically-tense interstate relations between Arab countries and some of their non-Arab countries with which they share rivers, while also underscoring the importance of institutions and group decision-making, uncovering the roles of the LAS will add to this literature by highlighting how this institution works in terms of resolving, mitigating, managing, or escalating this type of environmental conflict in the Middle East and parts of Africa. The next section examines river water disputes specifically, highlighting the debate similar to that of broader environmental conflict literature that stresses that resource scarcity could lead to more conflict or cooperation depending on the frameworks that are in place to manage it. It also expounds on the extant case studies, which are either just a few basins or encompass the world over, underscoring the rare approach in this research study of looking at a region with a medium sample size and determined by a cultural affinity.

### **3.2 River Water Conflict, Cooperation, or Both?**

Similar to the pattern of environmental conflicts outlined above, violence over river water conflicts to date have been low-level<sup>viii</sup>, often happening concurrently with and contributing to broader political conflicts. There is a lack of an overarching theory to explain river water paucity, conflict, and cooperation for the same reasons as outlined above: the effect of river water scarcity is insidious and indirect in exacerbating other political, economic, and social factors that contribute to the eruption of violent confrontations. In addition, there are no globally-recognized property rights on states' river water access and attempts to create them have fallen short of the international community's goals. As a result, researchers are largely divided over whether river water scarcity tends to more often trigger disputes or encourage collaboration and under what

circumstances they can lead to violence, while a few conclude that growing water scarcity can drive both relationship dynamics. (Elhance 1999; Zeitoun and Warner 2006; Hensel, Mitchell, and Sowers 2006; Tir and Stinnett 2012) This point underscores, as discussed in more detail below, why statistical research findings pulled from the same datasets can sometimes yield contradictory results.

To shed greater light on the existing debate between shared river waters as a catalyst for war or peace, I will first discuss the lack of a globally-recognized agreement that delineates how to manage cross-border river waters, and explain that where draft guidelines exist, conflict can arise from different interpretations of the notional legal language. I discuss that where interstate treaties exist to help govern Arab river basin management, they are problematic because many have not been fully or consistently implemented; signatories sometimes fail to fulfill the agreement on sharing river water; changes in government cause states to rescind their agreements; and many agreements are not basin-wide, leaving out important stakeholders. Second, I will outline studies that emphasize when there is an insufficient amount of river water to meet demand—a condition that is prevalent in the Arab world—international violence is more likely. When there is a shortage of river water and states are focused on their own water needs, they can become directly competitive with each other when seeking to make use of the same resource. I explain in more detail the aforementioned violent border skirmishes between Syria and Israel in the 1960s over competing water pipeline projects to harness the waters of the Jordan River. Third, I will expound on literature that explains why states view their quantity of river water as key to their own survival, discussing Arab leaders' views about how a decrease in their streamflow can be perceived as an existential threat. Fourth, I discuss the possibilities that water might be used itself as a weapon in disputes and discuss Arab apprehensions about structural scarcity caused by the Grand Ethiopian Renaissance Dam (GERD) and the Islamic State of Iraq and the Levant's (ISIL)<sup>ix</sup> use of

river water projects in its battle plans. Fifth, I explore large sample statistical studies that corroborate that river water disagreements are more likely to arise when there is scarcity, but that this condition also makes it more politically difficult for states to develop transboundary river management institutions to mitigate conflicts, leading to a cyclical problem; this underscores the importance of better understanding the already-existing IGOs and ROs that riparian states belong to such as the LAS. Sixth, I examine research studies that instead contend that water scarcity is more likely to lead to interstate cooperation, especially in the presence of effective international institutions. Seventh, I discuss the newest body of literature, which argues that river water shortages are likely to cause a rise in international incidents of both conflict and cooperation. In conclusion, I summarize that these studies suggest that river water scarcity is a key factor in whether conflicts become violent, and that while effective institutions are key to mitigating skirmishes, Arab river basins have not been able to establish and implement robust, inclusive transboundary river water agreements, making it imperative to examine how the pre-eminent Arab RO has been involved in cross-border river water disputes and cooperation.

### **3.2.1 Lack of a Globally-recognized Institution to Govern Riparian States' Actions**

International law has been unable to provide clearly-delineated rights to transboundary river water in a manner agreed to by all countries, and in some cases, where it is contradictory, has contributed to escalating conflict rather than resolving it. On average, the majority of peoples' daily potable water needs worldwide comes from river water, which comprises just 0.0007 percent of the world's total water supply. In fact, only three percent of the world's water supply is freshwater and roughly one-third of that comes from rivers and lakes, which often form the political boundaries between many countries that compete for rights to the waters. (Earth's Water Distribution 1996) Yet, there are no international laws or judicial procedures to govern transboundary river water

conflicts, leaving states to manage such disagreements on an ad hoc basis. Moreover, 60 percent of international river basins lack any type of cooperative management framework that outline country water allocations and can help to mitigate conflict. (Transboundary Waters: Sharing Benefits, Sharing Responsibilities 2008) These developments are just a few data points to illustrate that disputes about river flow management and utilization have the potential to increase political tensions, affect large populations, and could spark violent conflict. These concerns and dynamics for conflict and cooperation are particularly salient for the Arab region. There is no basin-wide agreements on any of the Arab river basins to govern water sharing and 80 percent of the Arab world's annual renewable water supply—much of which comes from rivers—originates outside of Arab countries. (Inventory of Shared Water Sources in Western Asia 2013, Ksia 2014)

The development of international law to govern water resources<sup>x</sup> has been contentious and has not yet materialized because it puts to question the most fundamental principle in international law: state sovereignty. (Elhance 1999; Elver 2006; Salman 2007) Essentially, this means at the international level that a state of anarchy exists about international river water governance. However, in late 2014, the 1997 UN Water Convention Treaty was finally ratified by enough countries to be considered in force for the countries that have signed it. The treaty, however, provides guidelines that are sometimes contradictory about how to manage international river waters, delineating that countries should recognize their riparian partners right to equitably use waters, while also saying that a country should ensure that any use of river waters should cause no appreciable harm to any of their riparian partners. Upstream countries emphasize the “equitable use” wording as they seek to increase their economic development and harness their freshwater supplies. On the other hand, downstream countries underscore “no appreciable harm” language to back or oppose such decisions that may interrupt their water supply.<sup>xi</sup> For example, in negotiations over rights to the Nile River Basin, Egypt

has cited the “no appreciable harm” clause, while upstream states such as Ethiopia have underscored their entitlement to “equitable use” in its construction of the GERD, which far has created a political deadlock on the establishment of a regionally-recognized, permanent water governance institution. The 1997 UN Water Convention Treaty remains unratified by many countries because of the problematic language. (Ohlsson 1995; Amery 2002; Waterbury 2002; Salman 2007; Menniken 2007; Delli Priscolli and Wolf 2009)

This lack of consensus about a globally-recognized institution to govern transboundary rivers leaves the onus on states to negotiate their own institutions that are shaped by contextual factors such as geography, economic development, and politics (Elhance 1999; Giordano, Giordano, and Wolf 2005). Yet, the majority of transboundary water agreements exist among developed countries in water-rich regions, where these tensions are least likely to lead to diplomatic or violent water conflict. (Elver 2006) Moreover, many of the bilateral or multilateral water agreements that exist between developing countries have not been effectively implemented because of a lack of economic means or technical capabilities (Elver 2006). Some also point out that treaties are not a guarantee of effective cooperation (Elhance 1999; Gerlak 2004; Conca 2006; Zeitoun and Warner 2006; Zawahri and McLaughlin Mitchell 2011; Tir and Stinnett 2012; Warner and Zawahri 2012) and that transboundary water treaties may intentionally incorporate ambiguous language which can be later used to escalate conflict when a signatory assesses that it is in their interest (Fischhendler 2006). Where treaties do exist, they are often bilateral even if the basin may be multilateral which can also lead to development issues and worsen environmental degradation. (Zawahri and McLaughlin Mitchell 2011)

In the Arab world, there are existing bilateral and multilateral transboundary river water treaties and management regimes for many of the regional rivers, but the

agreements and their implementation are fraught with problems because of shifts in interstate relationships and domestic governments; changes in water availability; a lack of political will; issues with treaty monitoring; and because many treaties are not inclusive of all riparian countries within a basin. For example, Iran and Iraq signed an agreement giving Iran more land and access to the Shatt al-Arab waterway in 1975, which Iraq later abrogated in 1979 during the Iran-Iraq War, illustrating that some of the treaties in the Middle East and Arab Africa have been abrogated in reflection of broader inter-state dynamics. Likewise, Israel has not met all of its obligations under its regional agreements, including the 1994 Israel-Jordan peace treaty to share waters from the Jordan and Yarmouk rivers with downstream Jordan. In 1999, Israel supplied only 40 percent of the required river waters, in part because it was experiencing its own drought. (Cockburn 1999) It is notable that just a few years after signing the agreement, the upstream signatory was unable and/or willing to meet its obligations and suggests that it is not a resilient bilateral institution able to cope with environmental changes. Israel has a separate agreement with the Palestinians about water rights for the Jordan River because efforts to negotiate a basin-wide agreement treaty have not been fruitful; the Palestinians assert that Israel does not meet its obligations under this agreement either. (Abuwara 2011) The Nile Basin Initiative is one of the few transboundary river management regimes in the Arab world that is inclusive of all of the countries that belong to the basin, however, there are disagreements between Arab, downstream Egypt and Sudan and the other nine non-Arab upstream countries about the language of the governing documents which remains a contentious conflict. Five of the upstream countries in 2010 signed their own agreement to use more Nile River water at the expense of the downstream Arab countries, which they have opposed, undermining the basin-wide attempt at managing the river waters and causing interstate political divisions. Part of the problem contributing to the disagreement over the Nile River Basin is that Egypt believes that a treaty it signed

with the United Kingdom on behalf of several of its African colonies in 1929, which gives Egypt veto rights over any upstream river water plans, is still viable despite that these countries have since gained independence. Clearly, even where treaties exist to manage transboundary river waters in the Arab world, conflicts still remain and there are significant weaknesses in the agreements that have been finalized.

Indeed, as discussed above in chapter 2 about institutional issues, there are similar possible problems with river water agreements that can lead to unintended consequences. Their ambiguity can potentially be used as a justification to exacerbate a conflict rather than resolving such disputes. Moreover, many highlight that the unique geopolitical considerations of river water disagreements, as discussed in more detail in the following section, make it a highly contentious resource when there is a shortage of river water.

### **3.2.2 Water Wars**

As noted at the beginning, the majority of violent interstate interactions in the world have been between Israel and one of its neighbors—all of which are Arab—making it pertinent to examine what extant literature says about when military actions over river water rights are likely to erupt. In the Arab world, the closest Arab countries have come to engaging in a war over water were the four major border clashes between Israel and Syria, referred to by some as the “Water War” in 1965 and 1966 that exacerbated tensions and helped to spur the 1967 war. These border skirmishes occurred between Israel, Syria, and the LAS over disagreements about which countries were allowed to harness the Jordan waters—which has failed to meet the freshwater needs of its riparian states and territories since the 1920s—for their own development. (Zawahri 2010) In 1953, Israel started the construction of its National Water Carrier (NWC), a large pipeline that diverts the waters from the Sea of Galilee<sup>xii</sup> and the Jordan River Basin system, to help provide water to the dry, southern parts of Israel. The construction of the NWC was discussed at LAS meetings since 1959 and culminated in the first Arab

Summit at the heads of state level in 1964, at which the LAS endorsed a Syrian plan to retaliate with the creation of the Jordan Diversion Authority (JDA), to be discussed more in section 4. The Syrian proposal involved the construction of a similar infrastructure project to divert the Baniyas River, an upstream tributary to the Jordan River and source of water for the Sea of Galilee<sup>xiii</sup>. Israel attacked the Syrian construction equipment with tanks and artillery fire from within its own territory and a demilitarized zone along its boundary with Syria in the four border skirmishes. In one attack, the Syrians opened fire on Israeli NWC construction equipment when they claimed that the Israelis built a road in Syrian territory to support the NWC's construction; in this incident, Israel responded with air strikes. (Shemesh 2004, Shemesh 2008, Dunstan 2009) Then-Brigadier-General Ariel Sharon, who later became Israel's Defense Minister and Prime Minister, publicly stated “People generally regard 5 June 1967 as the day the Six-Day War began. That is the official date. But, in reality, it started two-and-a-half years earlier—on the day Israel decided to act on the diversion of the Jordan River.” (Dunstan 2009, 9) The attacks on the construction of the Arab project combined with the Arab's loss in the Six-Day War caused the Syrians to give up on the project. This historical episode over a violent interaction over transboundary waters—perhaps the closest such an incident to date has come to becoming a war—adds credence to the environmental and conflict literature that disputes over transboundary river waters worsen tensions that can contribute, along with other factors, to countries' decisions to go to war.

More generally, literature that supports “water wars” tend to originate from the realist paradigm based on rational actor models and tend to focus on the geopolitical power differentials between states that seek to maximize their economic interests. This realist worldview assumes that because the international system is in a state of anarchy, countries are necessarily in competition with each other over transboundary river waters. These scholars present assertions or frameworks to warn about the potential for conflict

(Gleick 1993; Lowi 1995; Waterbury 2002) or statistical studies that draw from global datasets (Toset, Gleditsch, and Hegre 2000; Furlong, Hegre, and Gleditsch 2006; Hensel, Mitchell, and Sowers 2006). These studies show that states on average are more likely to use military threats and force against each other when transboundary river water is scarce and in high demand. This dynamic certainly played a role in the 1965-66 border skirmishes over the scarce waters of the Jordan River.

### **3.2.3 Water, the Hydro-social Contract, & State Survival**

States are concerned about their access to transboundary river waters because they are an important source of fresh and often potable water for industries, the agriculture sector, and the livelihood of peoples inside their borders; governments' failures to ensure access could lead to the overthrow of the government and undercut the state's main goal of survival. States were formed on the basis of being able to militarily protect their constituents and administer and provide resources to them; the state, in turn, is dependent on the provision of revenues that the service provision generates. (Tilly 1992) The expectation that the government supplies water sufficient to meet the demands of its businesses and citizenry in exchange for recognizing the governments' legitimacy has been termed the "hydro-social contract." It "forms the basis for institutional development, and also determines what the public deems to be fair and legitimate practice such as the desire for ecological sustainability, to which politicians react." (Turton and Meissner 2002, 38) If a citizenry views the state as being unable to fulfill such vital parts of the social contract, it can prompt citizens to rebel against power holders and overthrow them. (Stewart and Brown 2007) For example, in 1999 the entire Jordanian cabinet resigned because of public outcry over the government's provision of contaminated water to Jordan's capital city of Amman. (Halaby 1999) The hydro-political social contract underscores that a state's ability to function is dependent on its access to water and

explains why access to transboundary rivers can present a security dilemma from the perspective of a state.

Thus, from the optic of realism—taking into account the state's behavior is determined by self-interest under the ultimate goal of survival—and the role of the hydro-social contract, one would expect states to harness river water sources for themselves, largely without regards to neighboring states or to actively undermine states if they are seeking to dominate others. This realist point of view suggests that states will necessarily compete with each other over transboundary river water sources. At least in terms of political rhetoric, politicians from Arab countries and their neighbors have voiced such concerns and also implied threats to use military force to protect their access. For example, upon signing a peace agreement with Israel in 1979, then-Egyptian President Anwar Sadat “the only matter that would take Egypt to war again is water;” similarly, then Egyptian Foreign Minister Boutros Boutros Ghali in 1988 said “the next war in our region will be over the waters of the Nile.” Likewise, in 1990, King Hussein of Jordan said that water disputes could lead to war. (Dombrowsky 2007, 5) Clearly, there have long been interstate tensions and questions of existential threats within the Arab region over water scarcity and transboundary water issues. Yet, water demands have increased while supply continues to largely decrease and there have been no wars in the area solely attributed to water.

#### **3.2.4 Hydro-hegemony & Water as Power & a Weapon**

Many scholars point to a country's attempts to increase its river water supply as the cause for conflict, with other riparian partners viewing such developments as a zero-sum game in which the use of water by an upstream country necessarily means a loss in kind of river water for the downstream countries. (Frey and Naff 1985; Lowi 1995; Ohlsson 1995; Ohlsson 1999; Zeitoun and Warner 2006) When an upstream country is more politically, economically, and or militarily powerful than downstream states and

utilizes the river with little or no regard to downstream states' water flow it is often referred to as a hydro-hegemon. (Lowi 1995; Elhance 1999; Zeitoun and Warner 2006) Lowi<sup>xiv</sup> contends that upstream, more politically powerful countries have no incentive to cooperate with downstream, politically weaker countries on river water management issues, especially if they are enemies. (1995) Lowi asserts that when a hydro-hegemon is the upstream state, overarching protracted conflicts must first be solved between states before there can be cooperation on low-level politics, such as collaborative water management.

Zeitoun and Warner (2006) examine three major Middle Eastern river basins through qualitative case studies to examine upstream-downstream dynamics and refine the hydro-hegemony theoretical framework. They argue that a state's power relative to other riparian partners is more important than a state's location on the river, whether that be upstream or downstream, and its ability to exploit the river for development projects because of superior technical or development capabilities. They look at three hydro-hegemons, Israel, Turkey, and Egypt, in the Jordan, Euphrates-Tigris, and Nile River Basins. They conclude that these hydro-hegemons control the nature of interstate interactions about transboundary water underscore and that most interactions are low-level intensity conflicts as hydro-hegemons attempt to coerce the other riparian partners. (Zeitoun and Warner 2006). These case studies, however, also were conducted before the construction of the GERD and assumed that Egypt would be able to maintain its hydro-hegemonic power to stop Ethiopia's construction of the river project. Zeitoun and Warner also did not examine in detail the interstate dynamics between Turkey and downstream Arab countries during the 1990s and the construction of the GAP, which this dissertation examines.

So, what happens when the upstream states are weaker and the downstream states are the regional hegemonic powers in terms of political, economic, and/or military might?

This has long been the case with upstream East African countries in the Nile River Basin and the downstream countries of Egypt and Sudan. As mentioned in the above section on NI theories, institutions can change the political dynamics of the international system by giving more power to weaker states sometimes. Likewise, Salman contends that the Nile Basin Initiative—a temporary river management regime created in 1999 to help coordinate Nile states' river initiatives and lead to a more permanent river management arrangement—strengthened the position of weaker upstream states by giving them more equitable authority with the more powerful downstream states of Egypt and Sudan. (2013) Salman also points out that the NBI negotiations to create a more lasting regime actually deepened upstream-downstream divisions because Egypt and Sudan insisted that they maintain their existing river rights, while upstream states stressed their equitable rights to the river waters. In 2010 and 2011, several of the upstream states decided to ratify a permanent regime arrangement without including Egypt or Sudan, a move that could complicate Nile basin management in the future and has led to an increase in interstate tensions. (2013) Because the NBI is internationally-recognized, it gives the upstream states more external credibility in terms of managing their portions of the Nile River and political leverage to justify their use of the river waters to the chagrin of downstream Egypt and Sudan. The NBI also has a budget funded by international donors, facilitating the development of river projects in upstream states that might otherwise not be possible and giving them more economic power. (Salman 2013) Thus, much like NI theories argue, institutions like the NBI can sometimes change interstate power dynamics and weaken traditional hegemony by coordinating the weaker states so that they can provide a more powerful front with international backing to challenge the original hegemon.

In addition, some scholars point out that water-supply systems can be used in and of themselves as offensive weapons in conflict. Projects such as dams and desalination

plants can be used to destroy infrastructure and homes or large water sources can be poisoned. (Frey and Naff 1985; Gleick 1993; Elhance 1999; Zeitoun and Warner 2006) Gleick<sup>xv</sup> contends that if water provides a source of political or economic strength then “ensuring access to water provides a justification for going to war and water-supply systems can become a goal of military conquest.” (1993, 84) However, these uses of water as a means of attack are among the most extreme forms of violent water conflict and are likely to be used only when a broader conflict exists between riparian states. Jeong (2010) points out that such developments can lead to large population displacements, however, which have the potential to trigger or exacerbate cross-border disputes.

Some Arabs fear that river water will be used as a weapon by other countries or actors to exert structural scarcity, as evidenced by Arab concerns over Ethiopia's construction of the GERD and ISIL's capture of Iraqi dams that it uses in its military operations. In 2011, Ethiopia started to build the GERD to the chagrin of Egyptian and Sudanese governments, which are concerned that their supply of Nile River waters will decrease once the dam is in operation. In Egypt, there is a commonly-held fear, including among some Egyptian leaders, that Israel is supporting the construction of the GERD to harm Egyptian access to the Nile waters and to cause suffering among the Egyptian people. (Mazen 2016) At an Egyptian conference to discuss the GERD in 2013, then-Egyptian President Mohamed Morsi publicly threatened that “if our share of the Nile water decreases, our blood will be the alternative.” (El-Behairy 2013) ISIL has made more direct use of dams in Iraq as military weapons in its broader offensive tactics. In 2014, ISIL captured the Mosul Dam and threatened to use it to flood Baghdad, and in 2015, the organization obtained control of another Iraqi dam on the Euphrates River which they used to cut off the water supply to pro-government areas to extol structural scarcity on their enemies. After ISIL stopped the flow of the Euphrates River to some

areas, it was then also more easy for ISIL members to transverse the river basin by foot to conduct military attacks. (Gander 2015, The Guardian 2015) These data points indicate that there are perceived and sometimes real threats that disputants will use water as a weapon in the Arab world and these fears can influence Arab states' views of river water disputes and their interactions with other riparian partners.

### **3.2.5 The Likelihood of Riparian States' Engagement in Violent Conflict**

Some scholars have employed statistical analysis of large samples to show the correlation of water scarcity, the extent of shared water resources, and conflict. Tostet, Gleditsch, and Hegre (2000)<sup>xvi</sup> and Hensel, Mitchell, and Sowers (2006) find that pairs of countries that have rivers and a shortage of freshwater are more likely to engage in militarized disputes. Gleditsch, Furlong, Hegre, Lacina, and Owen (2006) build on this study, finding that these results hold whether the river forms a boundary between two states or whether a river simply passes through two countries. (2006) However, many rivers flow through more than two countries, and often, more than two countries are involved in managing them, making it a rough proxy to explain water conflict. With regards to collective action and conflict, Hensel, Mitchell, and Sowers (2006) add that large water shortages make it more difficult for conflict management institutions to be created or effective. This underscores the importance of finding pre-existing institutions, such as the LAS, and how they might be able to be utilized to encourage positive diplomatic outcomes.

### **3.2.6 Collaboration in Water Management**

Other researchers underscore that water disputes alone have not caused war, and assert that water scarcity is a problem that is only likely to bring riparian partners closer together as they try to find solutions for a changing environment. This paradigm largely arises from the liberal and NI schools of thought, which argues that cooperation is a more cost-effective and efficient choice for states rather than water wars. (Dinar 2009) Many

focus on access to water as a long-term strategic calculation on the part of governments; an attack may gain a downstream country water in the immediate term but harm the relationship with an upstream country who may seek revenge by disturbing its water supply later on. (Alam 2002, Zeitoun and Warner 2006) The desirability of a positive international reputation and financial assistance that comes from working with its neighbors can also be an incentive to collaborate. (Alam 2002) Some researchers also point out that rivers create interdependent relationships between states that can drive them towards cooperation in dealing with water, weather emergencies, or development projects (Dinar 2009; Zawahri, Dinar, and McLaughlin Mitchell 2011) There is empirical evidence that supports the argument that a state's desire to prevent a worsening in overall ties has sometimes influenced upstream riparian countries to share river water in the Middle East. For example, Turkey in 2009 increased the Euphrates river flow to Iraq and Syria during an intense drought because the Turkish government was concerned about regional stability and damaging the newly warmed relationships with these other governments. (Turkey to Give Iraq, Syria More Water Amid Drought 2009)

Wolf, Yoffe, and Giordano's (2003) study—one of the most methodologically robust water examinations to date—uses historical analysis and coding by examining and categorizing global water based events as conflictual or cooperative and assign a level of intensity to each event.<sup>xvii</sup> They use the existence of water treaties as a proxy for cooperation. They find that the majority of cross-border interactions over shared rivers have been collaborative because nearly 300 international water treaties have been signed since 1948. However, as noted in section 2.3.1, using treaties as a proxy for hydropolitical cooperation can be problematic; the existence of a formal agreement does not mean that conflicts are not still present or that the treaties will be effective. As discussed earlier, this is certainly true for the Middle East and Africa where states are unable and/or unwilling to always meet their contractual obligations to share water; while

treaties are useful for providing frameworks for managing transboundary rivers and setting inter-state expectations, their implementation may not be realized and can still serve as a source of tension between states if one or more fail to meet their end of the bargain.

Zeitoun and Warner (2006) also point out that governments may employ positive policies and mechanisms to persuade other countries along their shared water source to meet their water demands. For example, they can offer “trade incentives, diplomatic recognitions, military protection and . . . mutually beneficial 'shared interest' water projects.” (2006, 447) All of these approaches clearly would influence the broader political and economic relationships between two or more countries, and would have serious implications for the protraction of other ongoing conflicts within a region. These ideas could help to explain the lack of violent inter-Arab water disputes and again underscores the need for examining inter-Arab incentives, such as the provision of collective resources and technical assistance, that the LAS might help to provide to encourage cooperation rather than conflict.

Hensel, Mitchell, and Sowers (2006) find that water scarcity increases the probability of cooperation. They also point out that scarcity and institutionalization differs greatly across the world and therefore raise a valuable point that investigating regions instead of global institutional presence can provide more detailed results. They hypothesize that the higher the water scarcity is in a regional environment, the more difficult it is for states there to develop robust institutions to manage them; they suggest that this is particularly true of bilateral institutions because it is more difficult to create an institution that satisfies both upstream and downstream countries, making such riparian states more likely to seek a third-party to help negotiate institutional proposals. Consequently, they conduct statistical analyses on three separate regions. They measure the institutions in terms of the signature and ratification of multilateral treaties that call

for peaceful settlements of inter-state conflicts; thus a weakness with this study like the one mentioned earlier is that it does not capture treaty implementation or effectiveness in terms of actual actions. They find that the Middle East has the greatest water scarcity, which they say will harm the effectiveness and development of the Middle East's already-low amount of institutionalization. The findings indicate that states in the Middle East belong to few IGOs or ROs and that because of the region's water scarcity, the region is less likely to be able to develop new ones. Astoundingly, as of 2001, most Middle Eastern states, many of which are Arab, belonged on average to only two regional or international organizations as compared to the Americas' states' membership to of eight. They also confirm their hypothesis that states in this regions with higher water scarcity are more likely to seek third-party conflict resolution, especially when disputes are initiated by a downstream country,. These conclusions place even greater importance on building knowledge about the existing institutions that Middle Eastern countries belong to, such as the LAS, and its different facets of involvement in shared river water conflicts and cooperation. The study also demonstrates another gap in realizing the actual actions in conflict or cooperation on a regional basis, as opposed to just the existence of treaties, again highlighting the need for a detailed examination of the historical interactions across regions such as the Middle East and Arab Africa.

Similarly, Tir and Stinnett's (2012) results from a large sample size statistical analysis reveal that water scarcity does increase the risk of military conflict, but that this risk is offset by institutionalized agreements. They investigate whether certain functions of a river treaty are present and their effects on helping to mitigate militarized conflict, including provisions for joint monitoring, conflict resolution, enforcement, and whether the treaties create or make use of an already existing IGO to oversee the treaty. They find that highly institutionalized river treaties—agreements with these functions present—can help regulate the use of the shared river, stipulate rights and obligations, and provide

mechanisms for managing disputes before they escalate. (2012) This research suggests that institutions that are specifically tailored to river water management issues are more effective than general IGOs, like the LAS. Thus, the LAS is likely to have imperfections in its ability to manage shared river water issues.

### **3.2.7 Summary: River Water Conflict, Cooperation Driven By Scarcity, Institutions Are Key**

Extant literature reveals a divide between whether concerns over the management of scarce river waters is likely to provoke conflict or serve as motivation to cooperate with riparian neighbors. Many of the studies emphasize that river water scarcity is likely to lead to interstate disputes and that institutions are central to the ability to mitigate and adapt to such conflicts, facilitate decision-making amongst all the stakeholders, and shape behavior of cooperation or violence, underscoring that it is imperative that we come to understand in greater depth the role that a wider range of institutions plays. The bulk of existing research does not take into account regional institutions, like the LAS, or examine shared identity commonalities between state populations, such as Arab nationalism, that may help to explain relationship developments. The study by Hensel, Mitchell, and Sowers (2006) that does focus on regions emphasizes that in the case of the Middle East, countries belong to few IGOs or ROs and are less likely to be able to develop institutions to manage transboundary river water resources, while the high level of water scarcity in the region is likely to contribute to conflict, stressing the need to understand when and in what ways the LAS is involved in this issue area. Given that water scarcity is likely to more generally increase interstate engagement, whether through disputes or collaboration, I hypothesize:

*H4: The LAS has been involved most frequently in international interactions regarding river water scarcity more than any other issue.*

The next section on research design and methodologies explains the approach to examine whether the LAS has been involved in more conflict or cooperation regarding how to manage the paucity of river waters within the region.

#### **4. RESEARCH DESIGN & METHODOLOGIES**

The goal of this study is two-fold. First, this research is aimed at helping policymakers, both Arab and non-Arab, as well as non-governmental stakeholders, donors, and researchers to gain a greater understanding of the role that the LAS has sometimes played to date in transboundary river water disputes. With this understanding, interested parties can look to support institutional facets that promote peace and collaboration and be aware of organizational dynamics that in the past may have fostered conflict. This study will also contribute more broadly to an understanding of historical inter-Arab and Arab-non-Arab foreign policy interactions. Of course, the role that the LAS has played in these disputes does not exist in a vacuum: the role of the LAS may have changed according to “higher politics” such as wars over Palestine, tensions between Hashemite and non-Hashemite Kingdoms, the formation of the United Arab Republic (UAR), the Gulf War, and relationships with other regional riparian neighbors. Therefore, secondly, this study also is intended to provide a historical baseline for the Arab world on transboundary river water interactions. The study's findings can be set against a broader timeline backdrop of more generalized political dynamics in the region to understand external factors that may have changed the relevance or role that the LAS played in this specific facet of regional conflict; the aim is not to explain regional conflict writ large. To achieve these objectives, this study integrates three research methodologies and uses a mixed-methodology approach: structured, focused comparison of case studies; a hybrid approach of qualitative content analysis and basic quantitative analysis of events

data; and qualitative interviews based on the observations and work experience from LAS officials, UN officials, and U.S. diplomats on transboundary river issues in the Arab world. The interviews seek to help describe the LAS during its entire existence from 1945-2014 because existing event data only cover the years 1948-2008, and while event data are created as part of the research methodology for 2009-2014, the lack of searchable electronic press archives covering 1945-1948 makes it unfeasible to create reliable and valid event data for those years; the interviews are aimed partly to help to account for this three-year gap. I also attended a conference of the Arab Water Council (AWC) in Cairo, Egypt on December 11-14, 2014 to identify and meet with interviewees and gain a first-hand look at how Arab actors are seeking to act collectively on and manage scarce transboundary river sources. The information obtained from these interviews and conference will be discussed in conjunction with the quantitative and qualitative analysis to offer a rich description of the LAS's involvement in international river water conflicts and acts of cooperation.

Notably, this is the first study to take a mixed-methods approach with a medium sample size which focuses exclusively on Arab river basin interstate interactions and the LAS. As noted in the previous chapter, extant studies examining transboundary river water issues utilize large sample quantitative approaches, studying the correlation of certain variables to better understand the contributing factors and likelihood of conflict or cooperation over transboundary river waters at the global level or with a broader Middle East focus, while other studies are small sample qualitative case studies that focus on just a few river basins within the Middle East.

#### **4.1 Case Study Approach & Selection**

This study seeks to develop a broader, more in-depth understanding of transboundary river water disputes that could inform the use and roles of the LAS in the future as water scarcity, climate change, and environmental degradation is expected to

become more acute with time. As Elhance (1999) concludes, “more and more international efforts will be required to bring about peaceful resolution of conflicts over transboundary water resources . . . [and] such efforts will need to be informed by systemic knowledge about the factors, circumstances, and strategies that can help to overcome the many state barriers to international cooperation.” (p. 7) Indeed, the objective of this research is description, as in describing the level of engagement and the roles that the LAS has historically assumed in transboundary river water conflict and cooperation. In fact, the bulk of case study research is undertaken for the purpose of description, “unfolding processes and events as documented in order to provide readers with a record of what happened at particular periods during the conflict . . . [and] descriptions of conflict can be regarded as 'data.’” (Druckman 2005, Loc. 3439 of 8800) As noted below in Table 4, to achieve this objective, it is necessary to look at all of the transboundary rivers that flow through or on the border of Arab countries that are members of the LAS and over which states have collaborated over or argued about, thus defining these ten river basins as the case studies to focus on. The case study method is appropriate for the research purpose as it provides for a “detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalizable to other events.” (George and Bennett 2005, 5) The instances of cooperation or disputes, another defining characteristic of the cases, and where this information is pulled from will be explained more below in the data section.

I will use structured, focused comparison of these cases, a technique that was established “to study historical experience in ways that would yield useful generic knowledge of important foreign policy problems,” (George and Bennett 2005, 67) an appropriate research approach for investigating interstate hydropolicy developments. To accomplish this, I will compare and contrast the ways in which the LAS has played a role in interstate interactions in the ten international river basins. This methodology is suitable

for elucidating complex social phenomenon from a holistic and realistic perspective, allows for a range of outcomes, and can be descriptive in nature (Yin 2009)—key research features for helping to explain complex problems. In the structured, focused comparison of case studies, the cases are chosen because of their similarities. (Druckman 2005) As noted above, it is by their shared virtue of being transboundary river basins within or on the border of at least one Arab riparian state that belongs to the LAS that each is selected as a case, as specified in Table 1. Any differences of these states and the river basins is irrelevant and does not require special considerations or methods of variable controls, unlike with some focused, structured comparisons of case studies (Druckman 2005). For example, for the purposes of this study, any economic disparity or population differences between countries and river basins does not matter in terms of answering the research questions. After isolating the event data for the ten transboundary river basins containing at least one LAS member country as the case studies to be examined, the next major step in the research approach is to separate, collate, and generate event data to facilitate a quantitative and qualitative analysis of the past 66 years of LAS involvement in transboundary river water data to better understand its level of activity and its roles in transboundary river water conflicts and acts of cooperation.

#### **4.2 Events Data**

The dearth of Arab archives and the secrecy of some of the context of LAS summits; the objective of elucidating the behaviors of an international actor and interstate relations with regards to conflict and cooperation; and the requirement of processing a large amount of data to capture decades of interstate dispute and collaborative interactions across the Arab region makes the analysis of events data the most appropriate methodology to use to answer to test for the hypotheses.

Researchers are not permitted access to LAS documents and much of its meetings are secretive, according to a review of research approaches from previous LAS scholars,

making it necessary to use observable data from outside of the organization. One researcher—the son of a former LAS Secretary-General—was granted special access to LAS documents, which he notes are confidential and unavailable to scholars. (Hassouna 1975) Since some LAS summit agendas and proceedings were sometimes leaked to the press or Arab leaders or LAS leaders made statements to the press to signal their foreign policy approaches there are mentions in media outlets of key events in which the LAS played a role that are publicly available. Podeh (1999) points out that the inability of researchers to access first-hand Arab documents, or the simply the lack of primary source materials, has discouraged the historical study of Arab behaviors, and the main sources available to researchers are memories, newspapers, interviews, and speeches—much of which is covered by regional and international press. In an interview with the LAS's Deputy Representative to the United States, Sameh Alfonse, he also admitted that bureaucratic inefficiencies, sometimes a lack of competence, Arab cultural insularity, and a failure on the behalf of the LAS to advertise some of its activities also contributes to the lack of documentation of LAS activities, summit readouts, and general information. (Alfonse 2016) To compensate for the paucity of information, LAS researchers have performed content analysis of British official documents and correspondence, Jewish archives, published memoirs of Arab and British leaders, official press statements by Arab leaders, interviews with Arab politicians, and the publicly-observable actions and organizational elements of the LAS. (McDonald 1965, Gomaa 1977, Porath 1986, Maddy-Weitzman 1993) Thus, combining press with interviews are recognized sources of data for researching the LAS. The application of open press for the creation of events data has long been an established research practice, especially when trying to address issues of interstate conflict and cooperation.

The use of events data emerged in the 1960s and 1970s, when IR researchers were searching for a more rigorous methodology that surpassed the use of small and focused

case studies to develop a better understanding of states' and international actors' behaviors by looking at wider sets of data to improve the crafting of theory. (Azar et al. 1972a, Rummel 1979) The use and analysis of event data are common in the field of CAR to better understand historical patterns of international conflict and cooperation between international actors and are flexible in that that they allow for both quantitative and qualitative analysis. Thus, event data are appropriate for analyzing generating data to identify patterns and draw conclusions about foreign policy interactions across a region and between actors over long a period of time, such as the role of the LAS in transboundary river water conflict and cooperation among Arab and non-Arab neighbor states for much of the organization's existence.

#### **4.2.1 Purpose & Sources of Event Data**

The aggregation of event data allow researchers to study patterns, structures, and transformations in international relations and consist of three to four basic pieces of information. Event data are “nominal or ordinal codes recording the interactions between international actors as reported in the open press” and “break down complex political activities into a sequence of basic building blocks (e.g. comments, visits, grants, rewards, protests, demands, threats, and military engagements.)” (Schrodt and Gerner 1994, 826) There are three key elements to constructing event data, consisting of “the political actor who initiated an event (the source), the type of political action involved (the event), and the actor to whom the action was directed (the target).” (Schrodt and Gerner 1994, 828) The first and third parts of the data—the source or target—“can be a nation-state or its spokesman, a regional organization, or an international organization . . . or a political movement which has gained status within the behavior of the international system or any of its subsystems.” (Azar et al. 1972a, 62) Thus, the focus of a regional organization as an actor, such as the LAS, is appropriate. The event—including the date of the action or the news article if none is available—is defined as when an “international entity engages in

an activity directed at itself or another international entity . . . on a specified day.”

(Schrodt and Gerner 1994, 828) The researcher looks for events that occur within the time period specified by the research questions. An optional, fourth element of event data may also consist of an “issue area: a complementary category . . . [that] defines the parameters of the event by elaborating the intensity, the arena, the intermediate participants, or the topic of the event.” (Azar et al. 1972a, 62) This fourth component is useful for providing additional information for analysis and to provide event context.

Event data are extracted from a variety of credible news sources and are designed to measure overt behavior and perceptions between international actors. “To qualify as an 'event', an occurrence has to be actually reported in some reputable and available source.” (Azar 1980, 146) A researcher should also use multiple sources, especially if the researcher is trying to capture a spectrum of interstate behaviors because reliance on a single source of information could skew the results. (Azar et al. 1972b) While the New York Times is used as the main source in many event data bases to extrapolate key, intense events, it is often supplemented with regional press to include events of middle and lower intensity, and to enhance validity and reliability. (Rummel 1979, McClelland 1999) Because event data come from media sources, they essentially constitute foreign perceptions or foreign policy perceptions of the media, society, or government in the country of the news source since they are composed of international actors' statements, reactions, or views that they wish to publicize. (Rummel 1979) Thus, the data are necessarily only those that are reported in the press; a limitation of this method of data collection is that it does not capture covert, clandestine, or secretive interactions between international actors that might occur unless they have been leaked by the actors themselves into the press. (Azar et al. 1972a) Event data do not capture the full foreign policy approaches and perceptions of states, only the publicized ones.

#### **4.2.2 Event Data Generation: Content Analysis & Coding for Conflict or Cooperation Intensity**

Event data are developed through a process of qualitative content analysis and coding, related methods for describing, interpreting, and summarizing data key to testing the hypotheses. Content analysis is “any technique for making inferences by objectively and systematically identifying specified characteristics of messages” (Holsti 1969, 14), which focuses on identifying the latent meaning and context of any type of qualitative data. (Frankfort Nachmias and Nachmias 2000, Schreiner 2012, Krippendorff 2013)

Content analysis reveals patterns, themes, and macro social processes by systematically describing qualitative materials (Hesse-Biber and Leavy 2004), and is typically employed if the research questions are descriptive in nature, (Schreiner 2012) suitable for examining the roles that the LAS has played over time in the context of riparian interstate dynamics. It also is useful in terms of reducing data by capturing the main, important points of data in a larger data set, and allowing the researcher to uncover meaning across a number of cases, (Schreiner 2012) crucial for the approach of analyzing the sizable set of 66 years of events data and 10 international river basins. Notably, it is imperative for the researcher to take all relevant data into account, to perform the content analysis systematically in a sequence of steps, and to ensure that the coding frame is consistent.

Content analysis can also be done by an individual researcher, also making it a suitable approach for this project, but validity checks are important to ensure consistency and accuracy, to be discussed in more detail below in the coding process. In an effort to demonstrate reliability, it is also important to explain all the steps in the research process, so another researcher can replicate your work, however, keeping in mind that different interpretations of the same material are possible and can be equally valid. (Schreiner 2012) Once the meaning of the qualitative material is determined by the researcher, it is coded.

“Coding is essentially a process of [qualitative] content analysis: human coders . . . read the newspaper articles, identify whether the article contained any political actions corresponding to events, and then code for the appropriate source, event, and target.” (Schrodt and Gerner 1994, 828) Saldana (2013) describes a code as “a word or short phrase . . . [and a] researcher-generated construct that symbolizes and thus attributes interpreted meaning to each individual datum for later purposes of pattern detection, categorization, and theory building in other analytic processes.” (Loc. 459 of 7669) Thus, coding is similar to summarizing the information while capturing the pertinent pieces of information to assist in the analysis of a larger data set. To enhance validity of the research approach and results, it is recommended that “you either have part of your material coded by another person, or you recode part of the material yourself after approximately 10-14 days . . . to arrive at an interpretation of your material that would be shared by most people with a similar cultural background.” (Schreier 2012, 34) Thus, while a single researcher can carry out this methodology, it is necessary to repeat the coding process. The coded information is then inputted into a database that can be organized and analyzed to answer research questions. This study employs a concept-driven, deductive approach based on the institutional roles identified above developed from the literature review on institutional roles and international relations theories. Thus, my coding frame includes the categories of regulator, forum, and resource pooler and provider. “Each main category in a coding frame is the equivalent of a variable, and the subcategories for each main category make up the values of this variable.” (Schreiner 2012, 33) It's also important that each category capture only one aspect of the qualitative materials, that categories are mutually exclusive, and that each category is exhaustive—meaning that every unit of data fits into at least one category—and that each category has a least one unit of data. (Frankfort-Nachmias and Nachmias 2003, Schreiner 2012,

Krippendorff 2013) Thus it is pertinent to avoid creating extraneous categories and to ensure that each category is applicable to at least one datum.

After the events data have been created, there are two major research strategies that can be employed, categorization or scaling, which facilitates the analysis of the aggregate of the data. In this study, both strategies are used. In first strategy, categorization, events data are each categorized into types of events; this can be the fourth component, which then becomes analytic or adds context, noted as a possible element of an event datum above. For this research problem, each event is coded with a number to signify what type of issue area, based on a pre-existing coding mechanism to be explained in the data section below. In the second strategy, scaling, each event datum is scaled according to a degree of violence, conflict, cooperation, or some other indicator; (Azar et al. 1972b) the scale is also pre-existing and will be explained in the data section below. By assigning a degree of conflict or cooperation to event or event intensity, then one can aggregate data over a time period to examine longer term relationship patterns of conflict and cooperation. (Azar 1980) Intensity is often assigned a numerical value on a sliding scale that is indicative of the action's level of cooperation or conflict between states and that permits quantitative analysis of an aggregate and average. A higher, positive numerical value is usually symbolic of a more cooperative event, a number close to zero is often neutral, and a greater, negative number generally represents a more intense dispute. "For example, if two countries sign a trade agreement, that interaction might be assigned a numerical score of +5, whereas if the two countries broke off diplomatic relations, that would be assigned a numerical score of -8. When these reports are averaged over time, they provide a rough indication of the level of cooperation and conflict between the two states." (Schrodt 1993, 2) Thus once all of the necessary event data for the years of study in which the actor in question, the LAS, are isolated and coded

according to the numerical scale of conflict or cooperation, the mean can be calculated per Equation 1.

**Equation 1 Sample Mean**

$$\bar{x} = \frac{1}{N} \sum_{i=1}^N x_i.$$

In this case,  $x$  is the numerical score of conflict or cooperation intensity and  $N$  is the total number of events data in which the LAS is involved in transboundary river water conflict or cooperation instances. By taking the sum of the level of intensity of conflict or cooperation for the event data, and dividing by the total number of events in which the LAS has served as an actor, the mean will indicate whether, the LAS in all its involvement in transboundary river water acts of dispute or collaboration over the past 66 years for which event data are available or can be created, 1948-2014, has had a central tendency to be more involved in conflict or cooperative transboundary river water events.

In sum, international and regional press and the capture of their information in the events data is the best research methodology available, especially because of the lack of Arab archival information and/or research access to LAS documentation, to explore the behavior and activities of an international organization over a long period of time and a large region. The use of events data and their coding facilitates both quantitative and qualitative analysis, making it a flexible methodology and permitting a mixed-methods approach to the research problems. This study's research approach will thus employ both strategies derived from the main data source, the Basins at Risk project—to be explained in more detail below—including quantitative and qualitative analysis based on the scaling strategy that will facilitate the formation of a conclusion about whether the LAS is more involved in facilitating cooperation with transboundary partners or inciting conflict and the roles that it plays in these interactions.

### **4.3 Data Sources**

The data for the research analysis comes from a pre-existing database of events data, covering the years 1948-2008, which I streamline through several iterations and re-code; I also add and code my own data—building on the same methodology used by the aforementioned database—to account for the years 2009-2014. Electronic press sources are unavailable to capture press from before 1948 to allow the search, identification, and sorting of event data; thus, the years 1945-48 will be accounted for in the interview approach to be discussed later. Firstly, I will explain in more detail the above-mentioned database, the Basins at Risk (BAR), and its methodology. Secondly, I will explain the processes I used to extract the relevant events data and categorize each datum to reflect the LAS's institutional roles in question for transboundary river water acts of conflict and cooperation: the LAS as a regulator; as a forum for information exchange and technical assistance; and as a center and manager for intergovernmental resources that can be used to address member issues. Thirdly, I will describe how I followed the methodology of the BAR to create additional data to account for the years 2009-14 and applied the same coding and categorizations to each new datum.

#### **4.3.1 Basins at Risk (BAR)**

Most of the event data for this study are “water events” drawn from the Basins at Risk (BAR) database 1948-2008, compiled by Oregon State University. The database is extensive and comprehensive, and identifies “all reported instances of conflict or cooperation over international freshwater resources for the entire world for the past [sixty] years [1948-2008]” and classifies “those events by the international river basin in which they occurred, the countries [and organizations] involved in the event, the date, the level of intensity of conflict or cooperation, and the main issue associated with the event.” (Yoffe and Larson 2001, 8) It includes instances of every reported interaction between two or more nations for every transboundary river basin in which water was the

main driver of the event. More specifically, “water events are defined as instances of conflict and cooperation that occur within an international river basin, that involve the nations riparian to that basin, and that concern freshwater as a scarce or consumable resources or as a quantity to be managed.” (Yoffe and Larson 2001, 8-9) The data are pulled from extensive research of international press articles, literature review, Edward Azar's Conflict and Peace Database (COPDAB)—a seminal collection of global events data starting in 1948—and pre-existing water dispute database information.

The BAR includes the three key elements of event data discussed earlier: the source (or actor), the event, and the target. It also includes supplementary categories of data, the fourth optional component of event data discussed earlier. These three supplementary categories of data include the international river basin associated with the incident (e.g. the Nile River Basin); the issue area of the event; and the intensity of conflict or cooperation represented by the incident. The category of international river basin facilitates the isolation of events according to each river basin and helps the researcher to develop a geographic focus. The issue area of the event indicates whether the event centers around “water quality, water supply, hydropower, navigation, fishing, flood control, economic development, joint management and other.” (Yoffe and Larson 2001, 21) Thus, it enables analysis of the subject of dispute or analysis through careful qualitative examination and summation of the major issue area over a small data set; there are random numbers assigned to this category for coding purposes as outlined in Table 2. The numbers are merely to enable quick identification of the issue area and the researcher can search for the mode of this category to find the most common driver of an event. The BAR database has space to account for two different issue areas per event in case there are more than one associated with any instance of river water conflict or cooperation. For example, a country that publicly complains that an upstream country is

decreasing its water supply by using more for irrigation purposes to support the upstream country's agricultural use could be coded as both 1 for water quality and 9 for irrigation.

**Table 2: Water Event Issue Area for Conflict or Cooperation**

<b>Issue Area Number</b>	<b>Issue Area</b>	<b>Description</b>
1	Water Quality	Events relating to water quality or water-related environmental concerns
2	Water Quantity	Events relating to water quantity
3	Hydro-power/hydro-electricity	Events relating to hydro-electricity or hydro-power facilities
4	Navigation	Events related to navigation, shipping, ports
5	Fishing	Events related to fishing
6	Flood control/relief	Events relating to flooding, flood control, flood damage, flood relief
7	Economic Development	General economic/regional development
8	Joint Management	Events involving joint management of basin or water resources, especially where the management concerns cover a range of issue areas
9	Irrigation	Events relating to irrigation of agricultural areas
10	Infrastructure/Development	Events relating to infrastructure or development projects, including dams, barrages, draining of swamps for development purposes, canals
11	Technical Cooperation/Assistance	Events relating to technical or economic cooperation or assistance, including project evaluations or river surveys and funds for ranges of improvements to water-related technology/infrastructure
12	Border issues	Events relating to rivers as shared borders/boundaries
13	Territorial issues	Events relating to territorial claims, where the territory is associated with a water body, e.g. a river island

Source: International Water Event Database: 1950-2008. Transboundary Freshwater Dispute Database, Department of Geosciences, Oregon State University. Web. 19 September 2012.

In addition to conveying the issue areas of the water events, the BAR project permits quantitative analysis of the intensity of the dispute category by assigning a numerical value along a sliding scale representing the level of conflict of cooperation manifest by an event. The BAR Water Event Intensity Scale is based based on the COPDAB scale of conflict or cooperation, with modifications to make it more intuitive:

“The COPDAB scale differentiates categories of conflict and cooperation by an arbitrary set of numbers ranging from level 1, representing the most cooperative events, to level 15, representing the most conflictive events . . . . To make the COPDAB scale more intuitive, we first inverted it and then shifted it along the number line so that neutral events were centered on zero.” (Yoffe and Larson 2001, 23)

Therefore, the level of intensity of conflict or cooperation is coded according to the scale in Table 3.

Table 3: BAR Water Event Intensity Scale

BAR Scale	Event Description
-7	<b>Formal Declaration of War</b>
-6	<b>Extensive War Acts causing deaths, dislocation or high strategic cost:</b> use of nuclear weapons; full scale air, naval, or land battles; invasion of territory; occupation of territory; massive bombing of civilian areas; capturing of soldiers in battle; large scale bombing of military installations; chemical or biological warfare.
-5	<b>Small scale military acts:</b> limited air, sea, or border skirmishes; border police acts; annexing territory already occupied; seizing material of target country; imposing blockades; assassinating leaders of target country; material support of subversive activities against target country.
-4	<b>Political-military hostile actions:</b> inciting riots or rebellions (training or financial aid for rebellions); encouraging guerrilla activities against target country; limited and sporadic terrorist actions; kidnapping or torturing foreign citizens or prisoners of war; giving sanctuary to terrorists; breaking diplomatic relations; attacking diplomats or embassies; expelling military advisors; executing alleged spies; nationalizing companies without compensation.
-3	<b>Diplomatic-economic hostile actions:</b> increasing troop mobilization; boycotts; imposing economic sanctions; hindering movement on land, waterways, or in the air; embargoing goods; refusing mutual trade rights; closing borders and blocking free communication; manipulating trade or currency to cause economic problems; halting aid; granting sanctuary to opposition leaders; mobilizing hostile demonstrations against target country; refusing to support foreign military allies; recalling ambassador for emergency consultations regarding target country; refusing visas to other nationals or restricting movement in country; expelling or arresting nationals or press; spying on foreign government officials; terminating major agreements. Unilateral construction of water projects against another country’s protests; reducing flow of water to another country, abrogation of a water agreement.
-2	<b>Strong verbal expressions displaying hostility in interaction:</b> warning retaliation for acts; making threatening demands and accusations; condemning strongly specific actions or policies; denouncing leaders, system, or ideology; postponing heads of state visits; refusing participation in meetings or summits; leveling strong propaganda attacks; denying support; blocking or vetoing policy or proposals in the UN or other international bodies. Official interactions only.

-1	<b>Mild verbal expressions displaying discord in interaction:</b> low key objection to policies or behavior; communicating dissatisfaction through third party; failing to reach an agreement; refusing protest note; denying accusations; objecting to explanation of goals, position, etc.; requesting change in policy. Both unofficial and official, including diplomatic notes of protest.
0	<b>Neutral or non-significant acts for the inter-nation situation:</b> rhetorical policy statements; non-consequential news items; non-governmental visitors; indifference statements; compensating for nationalized enterprises or private property; no comment statements.
1	<b>Minor official exchanges, talks or policy expressions—mild verbal support:</b> meeting of high officials; conferring on problems of mutual interest; visit by lower officials for talks; issuing joint communiqués; appointing ambassadors; announcing cease-fires; non-governmental exchanges; proposing talks; public non-governmental support of regime; exchanging prisoners of war; requesting support for policy; stating or explaining policy.
2	<b>Official verbal support of goals, values, or regime:</b> official support of policy; raising legation to embassy; reaffirming friendship; asking for help against third party; apologizing for unfavorable actions or statements; allowing entry of press correspondents; thanking or asking for aid; resuming broken diplomatic or other relations.
3	<b>Cultural or scientific agreement or support (non-strategic):</b> starting diplomatic relations; establishing technological or scientific communication; proposing or offering economic or military aid; recognizing government; visit by head of state; opening borders; conducting or enacting friendship agreements; conducting cultural or academic agreements or exchanges. Agreements to set up cooperative working groups.
4	<b>Non-military economic, technological or industrial agreement:</b> making economic loans, grants; agreeing to economic pacts; giving industrial, cultural, or educational assistance; conducting trade agreements or granting most favored nation status; establishing common transportation or communication networks; selling industrial- technological surplus supplies; providing technical expertise; ceasing economic restrictions; repaying debts; selling non-military goods; giving disaster relief. Legal, cooperative actions between nations that are not treaties; cooperative projects for watershed management, irrigation, poverty-alleviation.
5	<b>Military economic or strategic support:</b> selling nuclear power plants or materials; providing air, naval, or land facilities for bases; giving technical or advisory military assistance; granting military aid; sharing highly advanced technology; intervening with military support at request of government; concluding military agreements; training military personnel; joint programs and plans to initiate and pursue disarmament.
6	<b>International freshwater treaty; major strategic alliance (regional or international):</b> fighting a war jointly; establishing a joint military command or alliance; conducting joint military maneuvers; establishing economic common market; joining or organizing international alliances; establishing joint program to raise the global quality of life.
7	<b>Voluntary unification into one nation:</b> merging voluntarily into one nation (state); forming one nation with one legally binding government.

Source: International Water Event Database: 1950-2008. Transboundary Freshwater Dispute Database, Department of Geosciences, Oregon State University. Web. 19 September 2012.

As noted above, the BAR provides useful and extensive data to analyze and answer the research questions for 1948 to 2008; it is a dataset of over 3,801 events in all of the world's transboundary river basins. To answer the research questions of what roles has the LAS played in transboundary river water events between Arab countries and between Arab countries and non-Arab countries, however, we only need a fraction of the data, and that data needs to be carefully and methodically pulled from the large BAR dataset. The BAR dataset also does not provide event data for the years 2009-14, which needs to be created, coded, and categorized. The next section explains how I extract the relevant event data from the BAR and how I replicate the BAR's methodology in creating event data for 2009-14 to add insight to Arab and non-Arab conflict and cooperation over transboundary river waters for more recent years.

#### **4.3.2 Data Extraction, Creation, & Coding**

This study focuses on cases of transboundary river basins that include at least one Arab state and have water events data in the BAR; these parameters will allow me to narrow down the dataset to focus on just the Arab region and identify my case studies and capitalize on other researchers' data collection, categorization, and coding for a large data set. For simplicity's sake, I will call river basins that contain at least one Arab state "Arab river basins," recognizing that other non-Arab states might have claims to these rivers. First, it is necessary to search through the BAR for any of the 23 Arab river basins identified in Table 1 that have any event datum in the BAR. Of the total 265 transboundary water basins in the world, the BAR has water events data for only 122 of those, or just under half of the world's international river basins; this is because not all river basins have had events of conflict or cooperation that have been recorded by press sources to capture. (Yoffe and Larson 2001, Appendix 4) I sorted through a list of all the river basins in the BAR that have events in the BAR's Appendix 4. I found that there are

only ten Arab river basins with water events data in the BAR, making these ten cases my case studies for focus as noted in the case study section above. Table 4 below highlights the Arab river basins, the Arab states within the basin, the non-Arab states within the basin, and the date of the ascension of the first Arab state to join the LAS within the basin. The last category is important to note because it suggests the earliest year we could expect to identify the LAS playing any type of a role in transboundary river water disputes or acts of collaboration for these rivers. Notably, the Medjerda, including Algeria and Tunisia, and the An Nahr el Kabir, including Syria and Lebanon, are the only river basins that does transverse a non-Arab state.

**Table 4: Transboundary River Basins in Arab States with BAR Events**

<b>Arab River Basin</b>	<b>Basin Code (Bcode)</b>	<b>Arab State(s) in Basin</b>	<b>Non-Arab State(s) in Basin</b>	<b>Date of first Arab State LAS Ascension</b>
Asi/Orontes	ASIX	Lebanon, Syria	Turkey	1945
Congo/Zaire	CNGO	Sudan	Angola, Burundi, Cameroon, Central African Republic (CAR), Democratic Republic of Congo (DRC), Republic of the Congo, Gabon, Malawi, Rwanda, United Republic of Tanzania (URT), Uganda, Zambia	1956
Jordan	JORD	Egypt, Jordan, Lebanon, Syria, Palestine	Israel	1945
Lake Chad	LKCH	Algeria, Libya	Cameroon, CAR, Chad, Niger, Nigeria	1953 (Libya)
Medjerda	MDJD	Algeria, Tunisia		1958 (Tunisia)
Niger	NGER	Algeria	Benin, Burkina Faso, Cameroon, Chad, Guinea, Ivory Coast, Mali, Niger, Nigeria	1962
Nahr El Kebir	NHRK	Syria, Lebanon		1945
Nile	NILE	Egypt, Sudan	Burundi, CAR, DRC, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, URT, Uganda	1945 (Egypt)
Senegal	SENG	Mauritania	Guinea, Mali, Senegal	1973
Tigris-Euphrates-	TIGR	Iraq, Jordan, Saudi Arabia,	Iran, Turkey	1945

Arab River Basin	Basin Code (Bcode)	Arab State(s) in Basin	Non-Arab State(s) in Basin	Date of first Arab State LAS Ascension
Shatt al-Arab		Syria		

Sources: International Water Event Database: 1950-2008. Transboundary Freshwater Dispute Database, Department of Geosciences, Oregon State University. Web. 19 September 2012; Toffolo, Cris E. The Arab League. New York: Chelsea House. 2008. Print.

Second, the next step is to isolate all of the water events by basin, searching by the Basin Code (Bcode) listed in Table 4. In order to extract the pertinent data from the BAR Database, I used an automatic search function within the database to identify the Bcode, which is a four-letter code that indicates in which basin an event occurred. Each cell in this column contains only one basin code. For example, I separated out events with the code JORD, the code for the Jordan River Basin, to isolate all events that occurred in that basin. I input these into a new database that only focuses on Arab water events to facilitate replicability for other researchers as a form of reliability. I completed the same step for all ten basins, naming each data sheet with the Bcode.

Third, I compiled all of the event data from all ten Arab rivers into the same data sheet and started to isolate the events in which the LAS has been an actor and identified LAS-affiliated institutions as actors. The LAS could be in a number of fields, because it could be the source initiating the event; or be the target or part of the event summary as other countries seek to take transboundary water issues to the LAS for discussion or to ask for resolution or resources. This required multiple approaches at identifying and streamlining the data. First, I searched for the code for ARL, the code for Arab League, in the fields BCCODE1, BCCODE 2, or the actor fields. I also searched for “Arab League” in the COUNTRY\_LIST and EVENT\_SUMMARY categories. Finally, I did a general catch-all search by combing the entire database for the term “Arab.” In the Event Summary category, I found the Arab Fund for Social and Economic Development

(AFSED); the Arab Bank for Economic Development in Africa (BADEA); and the Kuwait Fund for Arab Economic Development (KFAED); this required me to do more digging into what these institutions are and if and how they are connected to the LAS. I was able to identify that these organizations are key to the economic and technical assistance roles that the LAS might play in transboundary river water conflict and cooperation, to be explained in more detail below. There were no such additional institutions in the BAR to examine in terms of the LAS's other two roles in question that needed to be considered for this study. This search yielded a total of 43 water events.

Fourth, with this new database of events concerning the LAS and its affiliated financial institutions, I established three new categories for the three major roles under examination that the LAS might play in transboundary river water conflict and cooperation. As discussed earlier, three overarching roles emerge from extant literature on IGOs: as rules-based bodies, they serve as a regulator; they provide a forum for information exchange and technical assistance; and they pool intergovernmental resources that can be used to address member issues. Thus, the three categories established and added to the database are Regulator, Forum, and Pooler-Provider. For each event datum, I fill out these categories with a yes or no to indicate whether in each instance they served as a regulator, a forum, and/or a repository or provider for interstate government resources with regards to transboundary river water conflictive or cooperative acts. Depending on the event datum, it is possible that an act could apply to more than one category. I repeated the coding process to ensure reliability and consistency. These coded categories for each event datum will then be examined in the aggregate for qualitative analysis of the issue area in which the LAS tends to play one of these three roles and how often the LAS plays any of these three roles.

Fifth, using the scale of event intensity of conflict or cooperation explained above in Table 3, I created three new categories to identify and scale the acts of conflict and

cooperation between all of the different actors in any single datum, including the LAS, non-Arab states, and Arab states. This approach is based off of the BAR's category of country dyads to capture all the interactions between every actor in any event. All event datums include the LAS, but can also include any set of combination of Arab and/or non-Arab state actors. For instance, one event datum from January 18, 1990 as follows includes the LAS, Iraq and Syria as Arab states, and the non-Arab state of Turkey.

“The Arab League asked Turkey to shorten the period during which it cuts the flow of water in the Euphrates and to supply downstream Syria and Iraq with more water during the cut-off. A league spokesman said in a statement that Turkey should have consulted its Arab neighbors in advance and the fact that the Euphrates rose in Turkey was no justification for unilaterally stopping the flow. The spokesman said: 'The (Turkish) decision . . . is detrimental to two countries, Syria and Iraq, which have inalienable historic rights to the water of the river under international law. It is a measure which required consultations and agreement with the countries which share the waters of the river.' He added: 'The league . . . hopes the Turkish government will reconsider its decision, by shortening the period of diversion and also by reviewing the amount of water released during the filling period.'”  
(International Water Event Database: 1950-2008, n.d., n.pag.)

To capture the different interactions, I created an overarching category of Primary Actor and Target Event Intensity to indicate who the main actor was in the event, which country their action or statements were their behavior was aimed at influencing that instance, and the degree of conflict or cooperation inherent in this interaction. In the above case, the main actor is the LAS and the target of the LAS's statement condemning specific policy—in this case, the increase in use of river water—is Turkey. Thus, using the BAR event intensity scale depicted in Table 3, this event is coded -2 for this category. The Primary Actor and Target category value will be the same of either of the two subsequent event intensity categories: the interaction involving the LAS among Arab-non-Arab countries and, secondly, the interaction involving the LAS among Arab countries to measure the different interstate dynamics. In this case, the Arab-non-Arab event intensity is the same as the primary actor and target, -2, because the LAS is relaying the message on behalf of Arab member states to the non-Arab member state in

the interaction. Secondly, because the LAS is asserting the position of Syria and Iraq, it is expressing official support of these Arab states policies and gets rated 2 based on the BAR event intensity scale. The breakdown of Non-Arab-Arab and Arab-Arab interactions is to enable more refined analysis of these relationships under the auspices of the LAS. The establishment of these three event intensity categories will enable quantitative analysis, as described above, about the LAS's engagement in terms of the frequency and average level of conflict or cooperation between Arab and non-Arab riparian partners.

Lastly, as noted earlier, the BAR database did not include events data after 2008, so I had to search, create, and code the water events for 2009-2014. In terms of constructing the event data, there must be “some consistent and explicit definition of behavioral political events within or between states. Through such data collected across a number of possible events, an internal or external conflict profile . . . can be developed.” (Rummel 1979, n.pag.) For the sake of consistency in the event data construction, I used the criteria as set forth by the BAR. As noted above, BAR “water events are defined as instances of conflict and cooperation that occur within an international river basin, that involve the nations riparian to that basin, and that concern freshwater as a scarce or consumable resources or as a quantity to be managed.”<sup>xviii</sup> (Yoffe and Larson 2001, 8-9) I examined the archives of the news sources in Table 5 below, including both the typical major news sources used in many events data collection, such as New York Times and British Broadcasting Corporation; key regional press outlets, such as Al-Jazeera; important press outlets catering to Arab diaspora in Western countries, such as London Al-Sharq al-Awsat Online and London Al-Hayah; and official Arab government press bureaus, such as the Petra-JNA Online and Qatar News Agency Online. Some newspapers were also chosen to bolster the geographic representation of states in Africa, such as Sudan and Algeria, which had less prominent news media outlets. All newspapers

were published in English, in addition to Arabic or other languages, except for Al-Iraqiyah Television, which was automatically translated. Searching the online archives of each of the sources, I used a boolean search query of (“arab league” or “league of arab states” and river) from 01/01/2009 to 12/31/2014 which returned 7,078 article hits in total. I searched through each of these articles for events that met the criteria listed above to determine which ones described a water event. For any events that returned multiple articles that described the same event, only one event was recorded to avoid duplication. This produced 13 new events, available in Appendix 1, Table 15. Then, I repeated the processes described above, coding these events for the three roles and Primary Actor and Target, Non-Arab-Arab, and Arab-Arab event intensities.

**Table 5: International and Regional News Sources Used to Create Event Data for 2009-14**

<b>News Source</b>	<b>Description</b>	<b>Website</b>
Reuters	English daily and one of the world's largest international multimedia news provides reaching more than one billion people every day; has journalists based in nearly 200 locations around the globe	www.thomsonreuters.com
New York Times	English daily founded in 1851	www.nytimes.com
Kuwait News Agency (KUNA)	English and Arabic daily founded by a Kuwaiti Amiri (government) decree in 1979	www.kuna.net.kw
Cairo Post	English daily, independent, founded in 2013	www.thecairopost.com
Sudan Tribune	English non-profit website run by independent Sudanese and international journalists based in Paris	www.sudantribune.com
Sudan Vision Online	English independent daily based in Khartoum	www.sudanvisiondaily.com
Defense & Foreign Affairs' Strategic Policy	English publication aimed at policymakers founded in 1972	dfaonline.net
N'Djamena Presidency of the Republic of Chad	official website of the Chadian presidency, featuring reports and editorials on the President's activities	www.presidencetchad.org
Al-Ahram Online	English and Arabic daily based in Egypt with in-depth coverage of the Egyptian and Arab political,	www.english.ahram.org.eg

	economic, social, and cultural scenes	
Al-Iraqiyah Television	Arabic daily and Iraqi government-owned newspaper established in 2003, translated into English	www.imn.iq
British Broadcasting Corporation Monitoring	independent English daily based in the United Kingdom founded in 1939	www.bbc.co.uk
London Al-Sharq al-Awsat Online	English and Arabic pan-Arab daily newspaper launched in London in 1978	www.aawsat.net
Al-Jazeera	English and Arabic daily based in Qatar affiliated with the Qatari government	www.aljazeera.com
The Observer Online	private English online newspaper published twice weekly based in Kampala	www.observer.ug
Interpress Service	international daily available in a range of languages, including English, focused on third-world issues, including environmental reporting, founded in 1964	www.ipsnews.net
NOW Lebanon	English and Arabic daily covering Lebanon and the Arab region, changed to NOW News in 2012	www.nowlebanon.com, www.now.mmedia.me
The Daily Star	independent English daily and a major Arab region newspaper, based in Beirut and founded in 1952	dailystar.com.lb
Agence France Press	international daily available in several languages, including English in Arabic, founded in France in 1835	www.afp.com
Middle East News Agency	English and Arabic daily that is partially government-owned, based in Cairo and founded in 1955	www.mena.org.eg
Daily News Egypt Online	Egypt's only independent English newspaper, established in 2005 and temporarily closed between 2011-12 during the revolution	www.dailynewsegypt.com
Bahrain News Agency	English and Arabic daily, formerly known as the Gulf News Agency, and established by the Gulf Cooperation Council in 1978	www.bna.bh
Petra-JNA Online	English and Arabic daily founded in 1969 and owned by the Jordanian government until 2004, independent since 2004	petranews.gov.jo
Algeria Press Service	English, Arabic, and French daily founded in Tunis in 1961 during Algeria's revolution and moved to Algiers after it gained independence, government-owned	www.afp.com
Qatar News Agency	English and Arabic, government-	www.qna.org.qa

Online	owned daily covering the Gulf region, based in Qatar and founded in 1975	www.al-monitor.com
London Al-Hayah	English and Arabic, independent pan-Arab daily based in London founded in 1946 and temporarily shut down in 1977, re-opened in 1988 and owned by Saudi royalty	

In total, the isolation of water events in the BAR database that applied to the LAS, coupled with my replication of the BAR's methodology and criteria for identifying water events for the years 2009-14 using key international and regional newspapers yielded a sample size of 56 water events for analysis. Because the sample size is fairly small, it allows me to carefully analyze the data qualitatively in addition to quantitatively. I will compare each event datum to see if any trends emerge in terms of the if the LAS plays particular roles in combination with certain issue areas of river water more than others, if there are any trends in time about when the LAS was particularly active in playing a role in transboundary river water conflict and cooperation, and if there are any particular Arab river basins in which the LAS has been especially engaged in any of the three roles.

#### **4.3.3 Exploring LAS Economic & Technical Assistance: LAS-affiliated Financial Institutions**

As noted in the previous section, Arab financial institutions directly connected to the LAS or affiliated with it may provide loans and grants for transboundary river water projects and thus serve two of the key institutional roles of question in this study: serving as forums—which includes the provision of technical assistance—and the pooling and redistribution of Arab financial aid. Given the focus of this study of the LAS's roles in transboundary river water conflict and cooperation, including as a source of collective Arab financial and technical assistance, requires defining these institutions and explaining more about how they are tied to the LAS. These organizations that provide

grants and loans for development projects play complementary and sometimes overlapping roles, and their sources of funding and technical expertise are sometimes shared, making it difficult to identify the differences that such institutions might play within the Arab world in terms of financing transboundary river water projects.

According to my interviews with the LAS Deputy Representative in Washington Sameh Alfonse and President of the LAS's Center of Water Studies and Arab Water Security (CWSAWS) Chahra Ksia, the Arab Fund for Social and Economic Development (AFSED) and the Arab Bank for Economic Development in Africa (BADEA) were created under the auspices of the LAS and act as its technical arms. The Kuwait Fund for Arab Economic Development (KFAED) is affiliated with the LAS but also makes its own bilateral loans and grants on behalf of the state of Kuwait. The LAS helps to coordinate with AFSED, BADEA, and KFAED and among these entities while providing economic and technical assistance. (Ksia 2014, Alfonse 2016) Thus, for this study, these three Arab financial institutions are included as indicators of the LAS's institutional role in pooling and distributing resources. They are selected because they have BAR events data, or more specifically, publicly-recorded instances of providing economic and/or technical assistance for transboundary river water projects in Arab basins. The below summaries of each institution, their missions, balance sheets, and activities to explain more about how they coordinate and co-finance projects with and under the aegis of the LAS and why they are grouped together for purposes of this study.

The AFSED is the LAS's main and first financial institution, established by an LAS resolution of the Arab Economic Council in 1968 with its headquarters in Kuwait. According to its founding charter, its mission is to finance “economic projects of an investment character by means of loans granted on easy terms to governments . . . giving preference to economic projects that are vital to the Arab entity . . . and providing technical expertise and assistance.” (Arab Center for the Study of Arid Zones and Dry

Lands 1968, 10) Members of the fund are LAS members and many provided the financial capital to start the organization; the state of Kuwait holds the largest number of shares in the organization, in part under the sponsorship of the KFAED. It is financed by Arab public and private financial institutions, making it a type of bank of banks, and explaining why there is overlap in financing and coordination with other financial institutions on Arab development projects and technical assistance. In addition to providing loans, in terms of technical assistance, it helps serve as a brain trust for the LAS by providing conferences, helps to prepare conduct studies, and coordinates national and regional development programs; it also coordinates with other Arab aid agencies. (Clements 1992) While the AFSED was established in 1968, it didn't actually begin operations until 1974; since the commencement of its activities, the AFSED has financed over 600 projects, providing a cumulative total of over \$28 billion in funds. (Annual Report 2014)

Like the AFSED, the BADEA was also created by an LAS resolution in 1973; it was established in 1975 in Khartoum, Sudan with a focus on providing Arab loans, grants, and technical assistance for development projects in Africa. The bank is owned by 18 countries who are LAS members and its board of governors are the finance ministers of those countries. (Clements 1992, Arab Bank Signs Loan Agreement With Lesotho, Tanzania, Others 2012) BADEA partners with AFSED and KFAED, in part because it does not finance entire development projects as part of its *modus operandi*. In fact, according to its by-laws, it can only finance up to 60 to 90 percent of the costs of a project. (Arab Bank for Economic Development in Africa n.d.). Thus BADEA is partially reliant on AFSED and KFAED, as well as other Arab financial institutions, to carry out its own functions, underscoring the importance of their relationship in working together.

The KFAED provides funds directly from the Kuwaiti Government to states for project loans, but it also contributes and controls a significant portion of the AFSED's finances and played a role in the AFSED's establishment. (Clements 1992, Kuwait Fund

for Arab Economic Development 2013) In fact, in terms of its cumulative donations to an external body, it has given the most funds over time to the AFSED, to which it has contributed some \$560 million since the AFSED's founding in 1968 and 2013, the most recent year for which data is available. It has also contributed a total of roughly \$50 million to BADEA since BADEA's founding in 1973. (Kuwait Fund for Arab Economic Development 2013) The KFAED's contributions to both the AFSED and the BADEA demonstrate the strong connections of the organizations.

In sum, the AFSED, BADEA, and KFAED are organizations affiliated with the LAS and with event data in the BAR that help to provide technical and financial assistance for Arab water projects, including transboundary river water projects, that will be used to help measure the LAS's roles in providing a forum, including for technical assistance, and as a pooler-provider of resources. These banking institutions will be considered as sub-organizations of the LAS, in addition to the LAS's activities in general captured by the press, to help explain these two categories of roles of the LAS in international river water conflict and cooperation. The next section will explain my approach in interviewing LAS, U.N., and U.S. officials to help add context as to ways that the LAS might be involved in regional interactions regarding river waters from 1945-2014 that may not be captured by the event data.

#### **4.4 Interviews & Arab Water Forum (AWF) Attendance**

To bolster the validity of this research approach by collecting information that might not be in the press to help explain the roles that the LAS might sometimes play in transboundary river water conflict and cooperation, I also conducted qualitative, survey-style interviews of officials that have working experience at different times with the LAS, including LAS, U.N., and U.S. officials. Some of these experts have work experience with both the LAS and the U.N. Through their interactions with LAS officials, the LAS institution, and Arab countries, they can add helpful on-the-ground perspectives about

how the LAS functions and how Arab countries operate through the LAS to influence the international management of transboundary river waters. Seidman asserts that “the primary way a researcher can investigate an ... organization, institution, or process is through the experience of the individual people, the 'others' who make up the organization or carry out the process.” (2013, Loc. 395 of 4210) By questioning not only LAS officials, but also officials that might work with the LAS from a different angle through an alternate organization in this issue area, it allows for a range of perspectives to be explored and allows for more richness in our description of the LAS's roles in interstate riparian interactions. As explained by King and Horrocks “the criterion most commonly proposed for sampling in qualitative studies is diversity. Researchers seek to recruit participants who represent a variety of positions in relation to the topic.” (2010, 29) Thus, this approach seeks to consider a multitude of different experiences in working with the LAS in varied capacities. However, the sample size for the interviewees is fairly small at 13 participants; because it is difficult to gain access to these officials, there is a lack of LAS institutional knowledge, as noted earlier; and there are few who work on transboundary river water issues.

The following officials were interviewed and some said they did not have information to offer on the LAS's role on transboundary river water conflict and analysis. Still, it was important to contact them to avoid what Singleton and Straits call “coverage error” in which the researcher “fails to give members of the target population any chance of being included in the sample.” (2001, 60) To build my participant network, I asked all of the interviewees for recommendations of others that I could talk to who might know more on the LAS and its historic role in transboundary river water conflict and cooperation and approached conference attendees on the sidelines of the AWF to ask them the below interview questions.

- Sameh Alfonse, Deputy Chief Representative, LAS Mission to Washington D.C.
- Chahra Ksia, President, CWSAWS, LAS

- Wadid Erian, Senior Advisor, Climate Change Adaptation and Disaster Risk Reduction, LAS
- Mona Elagizy, Senior Water and Climate Specialist, AWC
- Khaled Abu Zeid, Regional Water Director, Center for Environment and Development for the Arab Region and Europe and Director, Technical Programs, AWC
- Andrew Hudson, Head, Water and Ocean Governance Program at United Nations Development Program (UNDP)
- Kishan Khoday, Team Leader in the Arab Region, UNDP
- Mohamed Bayoumi, Environmental Specialist, UNDP-Egypt
- Pasquale Steduto, Deputy Regional Representative for the Near East and North Africa, UN Food and Agriculture Organization (FAO)
- Anders Jagerskog, UNDP Shared Waters and Director, Stockholm International Water Institute
- Todd Watkins, Political Officer, U.S. Embassy-Cairo (2008-2010)
- Johnathan Crocker, Political Officer, U.S. Embassy-Cairo (2010-2012)
- Matthew Wills, Political Officer, U.S. Embassy-Cairo (2012-2013)

Seidman explains that interview research approaches exist a continuum of “tightly structured, survey interviews with preset, standardized normally closed questions” on one end and “open-ended, apparently unstructured, anthropological interviews” on the other end.” (2013, Loc. 484-485 of 4210) The interview research that I use is towards the survey side of the spectrum since this study seeks to ask the specific questions of if, how, and when the LAS has played the roles as a regulator, as a forum for information exchange and technical assistance, and as a collector and distributor of intergovernmental resources with regards to transboundary river water conflict and cooperation. The interview approach I take is also based on the realist premise that by interviewing these officials I obtain answers that are reflective of actual reality of how the LAS works in this issue area. I use the same questionnaire with all of the interviewees composed of what King and Horrocks call background/demographic and knowledge-based questions. (2010) The background/demographic questions shed light on the positions and capacities that the interviewee held in which they worked with the LAS and the years in which they did. The knowledge-based questions seek factual information held by the participant. While this approach is highly-structured, the questions allow for some flexibility in answers. Below are the following questions that were posed:

### **Background/Demographic Question**

- In what positions or capacities, and what years, did you work for or with the LAS?

### **Knowledge-based Questions**

- What are your general impressions of the LAS and how it operates?

### **Since the LAS's formation in 1945, what roles, if any, has the LAS played in . . .**

- providing structure, rules, regulations, and principles, for the resolution of possible disputes between Arab states over transboundary river waters?
- providing a forum for discussion on transboundary river water access between Arab states?
- sharing, gifting, or otherwise redistributing technical or economic resources with regards to improving the quality, access, or management of transboundary river water sources?
- facilitating collaboration to protect transboundary rivers from non-Arab neighbors through coordinated, diplomatic responses?
- facilitating collaboration to protect transboundary rivers from non-Arab neighbors through coordinated, defensive or offensive security responses?

In addition, my attendance at the AWF, organized, by the AWC, an LAS-affiliate helped to provide contextual background information about the LAS and its approach to freshwater management, including transboundary rivers, and provided up-to-date information about some LAS's approach towards using and protecting these shared resources. Key sessions included Shared Water Resources in the Arab Region: Emerging Conflicts and Perspectives for Resolution, State of the Water Reports in North Africa and the Arab Region, and The Regional Initiative on Water Scarcity. Lessons learned from these discussions will be shared in chapter 6.

#### **4.5 Summary: Mixed-methods Analytic Approach**

In sum, there is little to no primary source documentation from the LAS to answer the research question what institutional roles the LAS might have played in transboundary river water disputes and acts of collaboration from 1945-2014. The research design uses a mixed-methods approach of comparative case studies based on the identified ten Arab river basins that have recorded instances of conflict or cooperation according to the pre-existing global event database, the BAR. The isolation of events in which the LAS was involved in from 1948-2008, coupled with the event data that I created to capture such instances from 2009-2014, yielded a total sample size of 56 events. To further bolster the reliability of the approach and help account for the three-year gap in event data from 1945-1948, I interview LAS, U.N., and U.S. officials who have worked on transboundary river issues with a questionnaire survey style. In addition, my attendance at the Arab Water Forum helps to add contextual, up-to-date information on the LAS's workings on these topics through the end of 2014. This holistic, mixed-methods approach will allow me to discover the level of engagement of the LAS in transboundary river water activities; add greater insights into the three institutional capacities that the LAS has played in such interactions; and identify any time trends and basin patterns. To aid with uncover and explaining trends about when and in what capacities the LAS has served a role in transboundary river waters and facilitate a more comprehensive analysis, the next section will explain the broader political environment in which the LAS and its members were making foreign hydro-policy decisions at these times.

## **5. NATIONALISM, ARAB NATIONALISM, & THE LEAGUE OF ARAB STATES (LAS)**

As discussed in chapter 2, institutions and identities sometimes influence states' foreign policy decision-making; identities shape what foreign policies governments even view as possible options by molding foreign actors' perceptions of each other and contributing to citizen expectations about a government's approach to other states. As LAS members, Arab states also set expectations and are the ultimate policy makers in the LAS's approach to regional issues, including transboundary river water management, depending on their views of themselves, each other and others in the international system. Understanding when Arab nationalist sentiments created a political environment that made it more conducive for the states to come to agreement about the LAS's actions will help to contextualize the analysis of the roles that it has played in cross-border river water conflict and cooperation and identify if and when the LAS served in these capacities in coordination or in contrast to broader Arab affairs. The LAS can be understood as a culmination of Arab nationalist sentiments and a tangible realization of desires among Arab states to coordinate their foreign policy approaches; examining the rise and fall of salience in Arab nationalist identity helps to explain why Arab peoples and states choose to cooperate through the LAS absent material benefits sometimes. In fact, Arab nationalist sentiments at times have been so strong that governments have relinquished their sovereignty to unite as one state, a relatively rare phenomenon compared to countries in the rest of the world throughout history.

The point here is not to refute that there are differences that exist between Arab peoples, regional power asymmetries, or to deny that there are non-Arab minorities that inhabit Arab countries or that there are Arabs in non-Arab states who are also potential stakeholders in Arab foreign policy decision-making. It is also not to deny that those who ascribe to the same nationality still argue at times, including over the definition of that nationality and who else belongs to it. However, part of the goal of CAR research is to examine what shared or opposed interests there are between peoples and how these arise, and in this case, which constitute the different state governments<sup>xix</sup> and their respective constituencies that can serve as motivation to coalesce around grievances to worsen a conflict or collaborate to find solutions and to explain who is viewed as the other. It is these commonalities that brought the Arab governments together to form the LAS, while differences still exist between them.

Unfortunately, there is a lack of Arab World CAR theories and on interstate Arab foreign policy decision-making, especially with regards to the LAS. (Boutros-Ghali 1954, Hassouna 1975, Korany and Dessouki 2008) However, there are key themes that emerge from extant research, empirical trends, and key events that help explicate Arab CAR approaches and offer some insights into the LAS's involvement in inter-Arab disputes more generally. First, I will explain what extant literature on national identity formation has to offer in terms of elucidating the peoples' interconnectedness and why such identity frames sometimes contribute to states' decisions to cooperate, or conversely, why they may fight with others outside their nation. Secondly, I will explain how nationalism applies in the Arab context, how it has sometimes led to extreme forms of cooperation, where it has driven Arab state decisions to unite or to engage in violent ethno-nationalist conflict against non-Arab states, and how it has undergirded the development of the LAS. Third, I will detail how Arab nationalism declined overall in the 1960s onward in favor of state and Islamic identities, and that new IGOs and ROs that emerged that sometimes

served as alternative platforms for Arab collective action, but that there were still events which drove Arab states to cooperate and work through the LAS. The world is still making sense of the Arab Spring and events are still unfolding in some countries that might significantly change the salience of some identities in the region, and it is too early yet to have a good understanding of what shifts identities might take and if they will differ from country to country depending on the outcomes. Thus, the discussion of Arab nationalism from 2010 onwards will be notional and inconclusive, but seek to address preliminary extant literature that tries to illuminate how identity frames might be shifting after the fall of some regimes that had been in power for decades, violently oppressed dissent, and created strong social safety nets that had strengthened state and Islamic identities.

### **5.1 Nationalism, Conflict, & Cooperation**

As referenced in the discussion on social constructivist ideas, collective identities can be central to explaining conflict or cooperation that is sometimes not rational in terms of tangible gains, offer insights into the historical patterns of a group's behaviors, and explicate why conflict can become intractable; thus, exploring extant literature on nationalism is key to understanding the behaviors of the LAS as an identity-based organization that has been involved in identity-based disputes and cooperation. Notions of nations suggest a shared history of a people, ethnic similarities, and common interests that spur them to feel a sense of allegiance towards each other and can lead them to take collective action because of their sense of oneness. Some who ascribe to a nationalist identity may seek it as justification for cooperating with others, or to harm others, even though it might be irrational. (Anderson 1991, Anastasiou 2009, Hobsbawm 2012) The seminal work on nationalism by Benedict Anderson describes a nation as:

“an imagined political community . . . [that is] imagined as both limited and sovereign. It is imagined because the members of even the smallest nation will never know most of their fellow-members, meet them, or even hear of

them, yet in the minds of each lives the image of their communion . . . the nation is always conceived as a deep, horizontal comradeship. Ultimately it is this fraternity that makes it possible, over the past two centuries, for so many millions of people, not so much as to kill, as willingly to die for such limited imaginings.” (1991, 6-7)

Identities strengthen and weaken and conflict or converge with other identities. “The power of the narrative is aided or impeded by purposeful environmental changes, events and accidents of history—the packaging of a nationalist school curriculum, a war won or lost, the emergence of a charismatic leader.” (Dawisha 2003, 15) Part of the process of crafting an identity involves crafting out-groups, who can sometimes be targeted as enemies. “All nationalist identities differentiate 'us' from 'them.'” (Barnett 2002, 64) Herein lies the potential for conflict or for bridging between peoples with different identities. Moreover, a people can hold identities that sometimes come into conflict with each other when they belong to both in and out groups, which can lead to greater uncertainty about a people's and a state's course of action. Neighbors—especially those whom are bordering the group—feel a psychological need to maintain their distinct identities, which can worsen international polarizations. (Volkan 2009) Thus understandings of in-groups and out-groups, shaped by political leaders, can serve as important motivations and justifications for leaders' foreign policy objectives and decisions and explains how they help to garner popular support for them.

The next section examines notions of Arab nationalism; explains the political environment in which the LAS came to fruition; and elucidates factors that might have influenced Arab governments to be more willing to work through the LAS at times to show solidarity with their Arab brethren. The third section also explains the more legalistic parameters in which the LAS is able to operate, its organizational components and how they operate, its CAR guidelines, and its water-related sub-organizations to explicate precedents and tools that Arab governments might seek to employ through the LAS.

## **5.2 Arab Nationalism, Conflict, & Cooperation**

Notions of group identity and collective action have been ingrained in Arab traditions and ways of life for at least hundreds of years. These longstanding, shared conceptions of identity elucidate how peoples across today's state boundaries could view themselves as similar and at times shape foreign policy decisions to engage in cooperation with other Arab states or, conversely, escalate tensions with outside groups, such as non-Arab states.

There are different theories about when Arab nationalism took root because the salience of Arab identities, like other identities, has ebbed and flowed over time and its meaning has been shaped by its subscribers and the world. Watersheds such as the fall of empires, creations of religions, natural disasters, and any number of experiences that humans might encounter can significantly shape their conceptions of their own identities and that of the other. Indeed, “in the Middle East even more than elsewhere, group identity is often focused around shared memories of a common past; around events, seen as crucial, in recorded, remembered, or sometimes imagined memory.” (Lewis 1998, 19)

The next section describes the different meanings of Arab nationalism and aims at exploring the key points of the strengthening and weakening of Arab nationalist sentiments starting around the late 1930s to include events that led to the formation of the LAS. While there have frequently been high points and nadirs in the narrative of Arab nationalism, general trends can be seen over the past century that are helpful for informing analysis of what foreign policy approaches Arab governments have taken, including over transboundary river water conflict and cooperation. A historic timeline outlining key events that led to a strengthening and weakening of Arab nationalist sentiments is available in Appendix 2.

### 5.2.1 Exploring Arab Nationalism & Its Manifestations

The definition of Arab nationalism depends on who is defining it. It is a term in constant negotiation among its subscribers. Arab nationalism can be understood as “the idea the Arabs are a people linked by special bonds of language and history (and, many would add, religion), and that their political organization should in some way reflect this reality” and this is a notion “that still has force throughout the Arabic-speaking world.” (Khalidi 1991, vii) Some Arab nationalist intellectuals who helped to shape the ideology and founding of the movement also included notions of “religion,” “geographical environment,” and “racial stock.” (Gershoni 1997, 7) For instance, sometimes it has been perceived in a secular context, while in other times it has been understood as an Islamic concept. The goals of Arab nationalism has also varied; some sought to promote regional interests, remain independent governing entities and act collectively when interests between those entities happened to align; others sought to unify all Arab people and territories under a single state.

We can think of Arab nationalism as a sort of a political spectrum.<sup>xx</sup> On one end, liberal Arab nationalist ideas call for Arab peoples to unite into a single sovereign country; on the other end, realist Arab nationalist concepts pronounce that the current Arab states should remain as their own sovereign countries and do whatever they can to improve their security and material well being, even if it means hurting other Arab countries. In the middle, where most notions of Arab nationalism fall, are notions that Arab countries should work together on an ad hoc basis and sometimes help those peoples sharing the same identity even if it is costly. The next section explores in more depth the resurgence of Arab nationalism in recent history that contributed to Arab collective action and the formation and subsequent activities of the LAS.

### **5.2.2 Growing Salience of Arab Nationalism in the Early-20th Century**

Some Arab states were created by foreign regimes in the twentieth century and did not reflect on-the-ground realities of administration or cultural context. While some Arab political structures had existed more systematically in some Arab countries, the countries of the region known as the Fertile Crescent—Syria, Iraq, Jordan, and Lebanon—were delineated largely according to colonialist interests and had the weakest forms of governance and legitimacy. It was in these regions where Arab nationalism catalyzed as a movement as a counter to external influences. (Salame 1987, Porath 1986, Harik 1990, Luciani 1990, Maddy-Weitzman 1993)

The unnatural division of Arab lands, the continued foreign domination of them, and the influx of Jews represent several collective traumas at this time that shaped Arab nationalist identity, lending more salience to Arabs as an in-group and highlighting the differences of Jewish and European colonizers as out-groups. Arab discontent about these issues culminated into the 1936-39 Arab Revolt and brought Arab governments together. Palestinians' initiated the revolt, fomenting Arab popular opinion in support of the Palestinians and prompting widespread demonstrations in Iraq, Syria, and Egypt. In turn, “popular pressure compelled Arab governments and political leaderships to come out publicly in support of the Palestinian Arabs, to intervene with the British on the latter's plans to partition the country, and finally to cooperate so as to speak with one official voice in international conferences.” (Dawisha 2003, 108) Arab governments decided to gather and discuss their shared interests and concerns about the Palestinian issues. They convened the 1938 World Parliamentary Congress of Arab and Muslim Countries in Defense of Palestine in Cairo and the 1939 London Conference for Palestine—the first such meetings of Arab governments and precursors to the formation of the LAS. In Cairo, the Arab governments agreed on a common position, which led them to jointly, publicly

deride the terms laid out by the British for Palestine's eventual independence. (Gomaa 1977, Porath 1986, Dawisha 2003)

Shortly thereafter, some Arab leaders and governments felt so strongly about Arab unity—in combination with other political factors—that they considered giving up some of their sovereignty to form a joint government; Arab peoples and governments would consider different amalgamations over time of joining their countries together. Yet, there was also jockeying among the regimes or countries at the time over whom would get the majority of control to rule over such new states, underscoring that during the high points of Arab unity there was still some dissension and the interests of leaders seeking to protect their administrations still were important. In 1943, Iraq proposed the creation of a “Greater Syria” whereby the states of Syria, Lebanon, Palestine, and Jordan (then-Transjordan) would reunite and join an Arab union which Iraq would dominate as a federation. At the same time, Jordan suggested the same unification of itself with Palestine and Syria, but demanded that it lead Greater Syria. Leaders from other Arab states grew concerned of the new power that such a large state would lend to the Hashemite dynasty relative to other Arab regimes. The Egyptian and Saudi Governments, along with a faction of Syrian leaders who disagreed with the plan, collaborated to instead propose a meeting in Cairo for Arab countries to detract attention from the Greater Syria plan. This led Egypt to invite all Arab states to Alexandria to discuss a variety of possible arrangements for cooperation, including federation, unification, and coordination, and culminated in the signing of the Alexandria Protocol in 1944. This treatise laid out an agreement for the states to remain sovereign but specified that they would coordinate their foreign policy plans, and served as the legal footing for the later Pact of the League of Arab States in 1945, to be discussed in more detail later. (McDonald 1965, Hassouna 1975, Gomaa 1977, Zacher 1979, Dawisha 2003)

Arab nationalist sentiments also continued to foment following the end of WWII when Arab countries were still working to eliminate European colonial influences in their countries and were coping with the new creation of Israel and questions about what to do about Palestine and its peoples. In 1947, the UN voted to partition the Palestine between the Jews and the Arab Palestinians and Arabs refused to recognize the UN resolution. Thus, the formation of Israel represented another collective trauma for many peoples and governments which identified as Arab, again strengthening notions of the in-group and out-group. Arab peoples and governments decided to act. Arab countries attacked Israel along their shared boundaries and supported Arab Nationalist and Muslim Brotherhood volunteers to launch an attack in Israel internally. Israel was able to drive Arab forces out of the territory and to claim additional territory. The inability of the Arabs to prevent the creation of the Jewish state of Israel in 1948 was viewed as a defining moment for the identity group, who called it nakba or “calamity.” (Lewis 1998, Rogan 2009)

Many Arab leaders found that Arab nationalist rhetoric contributed to their popularity and legitimacy, and they espoused Arab nationalist ideas as part of their policies when it benefited their interests and goals. Egypt played a prominent role in driving Arab Nationalist opinion and related policies, as did its leader, Gamal Abdel Nasser, who was President from 1956-1970. Arab nationalism started to reach a pinnacle following the Suez Crisis in 1956. Nasser decided to nationalize the Suez Canal to finance the construction of the High Aswan Dam, prompting a British-French-Israeli military response. International pressure against the British-French-Israeli alliance to cease hostilities and withdraw its forces was viewed in the Arab world as a huge victory for Arabs against Israeli and colonial influences, creating a sense of unity and increasing the popularity of Nasser throughout much of the Arab world. (Podeh 1999, Dawisha 2003, Rogan 2009) The rise in Arab nationalist sentiments put public pressure on other Arab regimes to increase their Arab nationalist activities and associations.

The Ba'th party-led Syrian government, seeking to increase their own popularity by tying themselves to Nasser and curb the rise of rival political parties, approached Nasser about joining their countries together under a single administration. Nasser agreed and the formation of the United Arab Republic (UAR) of Egypt and Syria was announced on February 1, 1958. “In the summer and fall of 1958, people from around the Arab world had filled the streets, euphoric in the hope that the actual union of two states and the very real possibility of two, even three more joining in would become the very foundation upon which comprehensive Arab unity would be built.” (Dawisha 2003, 232) Arab nationalists in other Arab countries increased pressure on Arab leaders to join the UAR, especially Jordanian King Hussein Abdullah and Iraqi King Faisal. Seeking to protect the Hashemite dynasty, however, King Abdullah instead brokered an agreement to unify with Iraq, leading to the creation of the Arab Union (AU) just two weeks later. However, both unions were short-lived because of coups. The popularity of Nasser, the political champion of Arab nationalism, started to deteriorate and continued to worsen in coming years, as to be discussed more in the following section. (Parker 1962, Dawisha 2003, Rogan 2009, Cleveland and Bunton 2012)

In sum, Arab nationalism developed and grew in salience from the early twentieth century to the early 1960s when threats from perceived external actors mounted, when it was politically-expedient for Arab leaders to tout the Arab identity frame, when unified Arab attempts to undermine external actors failed and they shared in the same losses, and when a recognized leader of Arab nationalism achieved foreign policy success. The entry of European colonial forces and significant influx of Jews to the region, combined with the creation of Israel created a strong sense of out groups. As Nasser promoted Arab nationalism and achieved success in his approach to the Suez Canal crisis, it prompted other state leaders sought to unite their countries to bolster their own popularity. The repeated attempts of several Arab countries to unite demonstrates a rare willingness by

countries to forgo sovereignty. In addition, their creation of the LAS was a materialization of a desire of Arab countries to work together and leverage their combined powers to advance Arab interests.

The strength of Arab nationalism described during this time frame is key to note, because it created widespread popularity for Arab political unifications and alliances that sometimes motivated Arab governments to collaborate with each other and sometimes prioritize shared identities over other considerations in formulating their foreign policy decision. This idea helps to formulate the first part of hypothesis 5, *the LAS is more active in river water interactions when Arab nationalist sentiments are high and the political environment was more conducive to Arab consensus—until the end of the 1967 War*—which will continue to be fleshed out in the following section.

#### **5.2.4 Descent of Arab Nationalism Since the Late-20th Century**

Since roughly the mid-1960s, Arab nationalist identities have weakened in favor of state and Islamic identities, sometimes pitting Arab states against each other. Political, social, and economic shifts within and outside of the region, coupled with Arab governments' responses to each other's decisions about how to handle these new dynamics, created new divisions in inter-Arab politics. Military coups that had characterized the 1950s became less numerous, leading to more stable Arab governments, and Nasser, the former regional leader of Arab nationalism, passed away. (Barnett 1996, Dawisha 2003, Cleveland and Bunton 2012, Mansfield 2013) Drastic economic changes provided new levels of influence to a number of Arab governments, shifting the calculus of their foreign policy approaches, and they more often prioritized issues instead of shared identities. Among the most significant watersheds during this period is the significant loss of several Arab countries to Israel in the 1967 war, which “tarnished the reputations of the military regimes that had come to power in the 1950s with their programs of social reform and their promises of strength through Arab unity. By [the end

of the Six-day War], the new regimes seemed every bit as corrupt, dysfunctional, and inept as their predecessors.” (Cleveland and Bunton 2012, Loc. 7130 of 14335) At the same time, some Arab countries eventually made peace with the traditional enemy of the earlier 20th century, Israel. In addition, other regional and international organizations, such as the Gulf Cooperation Council (GCC) and the Organization of the Petroleum Exporting Countries (OPEC), also developed and provided alternative IGO and RO venues to coordinate foreign policy approaches. While there were still some events that drew Arab governments together and resurfaced Arab sentiments, the general trend was a downward slope of Arab nationalist sentiments as Arab foreign policy approaches became more divided, redefined the “other,” and sought to secure the survival of the Arab state.

“As various states established themselves more firmly and defined and pursued their various national interests with growing clarity, their commitment to pan-Arabism became more and more perfunctory.” (Lewis 1998, 140) The new source of revenues also significantly shifted the economic disparities between Arab countries and elevated the international influence of oil-rich Gulf states, affording them some new flexibility in their domestic and foreign policy approaches.

Egypt—seeking to regain land, revenues, pride from the loss of the 1967 war and to attract international attention to help negotiate a settlement with Israel—conspired with Syria to attack Israel in the 1973 Yom Kippur War. (Cleveland and Bunton 2012, Mansfield 2013) In another show of Arab unity against Israel, Arab members of OPEC announced a reduction in oil exports until Israel stopped its counter attacks. Within two weeks hostilities ceased as all sides, with the assistance of the United States and the Soviet Union, brokered a cease fire. (Rogan 2009, Cleveland and Bunton 2012, Mansfield 2013) While Arab countries had coordinated their efforts, they went through OPEC to do so, not through the LAS. Other regional Arab organizations, such as the

GCC, also emerged that could be alternative regional organizations outside of the LAS that Arab states might look to work through instead. Notably, Arab countries were also sometimes looking to the Cold War superpowers to negotiate a truce, showing a new role of outside powers emerging that played a role in some inter-Arab contexts.

In following years, Egypt moved to create peace with Israel, leading to Egypt's banishment from the LAS for several years and a nadir in Arab nationalism. The two former enemies agreed to the Camp David Accords in 1978. (Cleveland and Bunton 2012, Mansfield 2013) The move incensed other Arab governments, who still viewed Israel as an enemy and they ostracized Egypt, taking a number of symbolic steps to signal that it was now part of the out-group. Arab countries' ostracization of Egypt prompted the Egyptians to look inward in terms of their identity. "Some of the country's leading intellectuals had once been supporters of the Nasser revolution and its pan-Arabism, rationalized these feelings [of being placed in an out-group] by talking of an Egyptian identity and destiny which were separate from those of other Arabs." (Mansfield 2013, 341) Thus, Egypt's decision to make peace with Israel served to strengthen its leaders' and peoples' state identities while weakening Arab nationalist identities.

In 1980, Iraq invaded Iran leading to the bloodiest war in the Middle East's modern history. Iraqi leaders viewed Iran's harboring of Kurds as a violation of their bilateral 1975 Algiers Agreement, which acceded more territory to Iran along the Shatt al-Arab River—the confluence of the Tigris and Euphrates Rivers that opens to the Persian Gulf. (Cleveland and Bunton 2012, Mansfield 2013) The Iraqi government also sought to take advantage of the turmoil in Iran following its 1979 revolution, using the opportunity to try to re-seize the territory along the Shatt al-Arab waterway (Rogan 2009). With the exception of the Shi'a-led Syrian government, all Arab countries supported Iraq in the Iran-Iraq War, thus there was a rallying around the Arab identity juxtaposed against the Persian and Shi'a identities. Syria also started aligning its foreign

policy approach more closely with Shi'a-controlled Iran because of their mutual antagonism toward Iraq, Israel, and the United States. (Rogan 2009)

By 1994, all Arab states except Iraq and Libya were working with Israel towards achieving an Arab peace, representing a significant thaw in Arab-Israeli relations and somewhat dampened nationalist sentiments among many in the populations. One of the most tangible and lasting outcomes of this development was the conclusion of a bilateral peace treaty between Jordan and Israel in 1994; its Annex II in 1999 included agreements for specific water flows in terms of allotments of cubic meters of water for each country regarding the Yarmouk and Jordan Rivers. Overall, this period in Arab-Israeli history represented a softening for many in terms of Arabs' definition of their own sense of self versus another as they started to take serious steps—with a people who had long been considered “the other” and a dehumanized enemy—that contributed to a decrease in Arab nationalist sentiments.

#### **5.2.5 A Nascent Discussion on Arab Nationalism in the Early-21<sup>st</sup> Century**

The last major watershed for the period under examination that might suggest a shift in Arab nationalist sentiments, LAS policy, and Arab foreign policies is the Arab Spring; any analysis of the outcome is premature, but there are a few developments of note. As Cleveland and Bunton point out, “the wave of revolutions that swept across North Africa in 2011 are momentous events, but they will take years to work themselves out. Clearly any attempt to interpret the recent history of the Middle East runs the risk of being overtaken by rapidly changing events.” (2012, Loc. 9806 of 14335) According to a 2011 study conducted by Peter Jones, in which he interviewed 70 senior government officials, academics, and think-tank leaders with expertise in Middle Eastern affairs, some experts thought that the social revolutions that managed to spread from Tunisia to Egypt to some other Arab countries was suggestive of a rise in Arab nationalist sentiments and/or political Islam. Jones conjectures that if the snowballing of anti-

government movements is indicative of an increase in Arab nationalism, it will evolve into a different sort of Arab nationalism than that seen under Nasser in the 1950s and 1960s, but that there would be a common element of a call to eschew the influence of non-Middle Eastern forces in the region. (2012) The LAS received a boost in its relevance as Arab governments grappled with how to deal with their own and each other's instability and international pressure to thwart brutal crackdowns on Arab populations by government leaders desperate to remain in power. In some cases, this dynamic has resulted in stronger cooperation between Arab governments, while in others it means ostracization or even military actions against those governments using excessive force to suppress dissent. In the case of Libya and Syria, the LAS issued resolutions which diplomatically-sanctioned the governments for their responses to protests and called on the United Nations to take measures to stop violence against both countries' constituencies. (Maddy-Weitzman 2012, Kirkpatrick 2013) While it is still too early to make conclusions on whether Arab nationalism might be experiencing a resurgence, the uprisings and government reactions have led to an increase in activity in the LAS.

In sum, following the 1967 war, Arab identity salience weakened overall as new political divisions formed, interstate economic dynamics changed, state identities strengthened, and alternate IGOs and ROs in the Arab world were created. In contrast to the previous period of Arab nationalism, this suggests that Arab governments were less motivated to coordinate their foreign policy approaches with other Arab states, including through the LAS. *Thus, hypothesis 5 predicts that there was a slowdown in the rate of the LAS's involvement after the 1967 war in transboundary river water issues.* However, approaches towards Israel largely continued to be a rallying point for Arab coordination on foreign policy, illustrating that this is often a common thread in Arab collective action in the international system. This pattern—coupled with the finding mentioned throughout the dissertation that there have only been 37 violent interactions between two states over

river water and all but seven of those have been between Israel and one of its Arab neighbors (Wolf 1998; Wolf et al. 2006)—leads me to postulate hypothesis 6:

*H6: The LAS has been engaged most frequently in international river basin interactions with Israel more than any other non-Arab neighboring state.*

While taking stock of Arab nationalist sentiments and the LAS, it is imperative to examine the functions and operations more generally of the regional organization, to examine how and under what circumstances it is devised to protect member interests and approach inter-Arab and Arab-non-Arab disputes, and water-related institutions. The next section seeks to explore the legalistic foundations of the LAS to give a sense of its mission and capabilities in coordinating Arab foreign policy approaches and also helps to finalize the formulation of hypothesis 5 about the LAS's engagement in transboundary river water conflict and cooperation over certain time frames.

### **5.3 The LAS**

The purpose of the LAS was outlined as an effort “to draw closer the relations between member States and co-ordinate their political activities with the aim of realizing a close collaboration between them, to safeguard their independence and sovereignty, and to consider in a general way the affairs and interests of the Arab countries.” (Pact of the League of Arab States 1945, Article 2, n. pg.) It specified Arab intents to collaborate in a range of issue areas, including cultural, economic, financial, legal, and social affairs; health; and communication. The LAS, like many ROs, has no executive powers or authority and depends on its member states to abide by resolutions. As Salafy explains, “the founders of the League chose to make the organization representative of all Arab states by establishing loose ties among them rather than more binded ties with fewer participating states. The Arab leadership decided that pragmatism, rather than idealism, would lead to the more effective institutional framework. Therefore, while unity was not dropped, it was decided to stress cooperation and to build into the organization the ability

to adapt to changing circumstances and realities.” (1989, 3) The LAS has crafted itself as an organization to united, protect, and advocate for Arab interests, largely focusing on preventing foreign forces from invading Arab lands and pushing for the international recognition of Palestinian statehood. (Zacher 1979, Peace 2008)

### **5.3.1 The LAS Council**

The LAS's main decision-making body is the Council composed of leaders, often heads of state, of its member states. Each member state receives only one vote and resolutions are passed only on a unanimous basis and are only binding on states that have voted in their favor. This main mechanic was based on the LAS's emphasis on the protection of sovereignty and all granted equality to all the members. It is also representative of the strong anti-imperialist sentimentalism that went into the founding and crafting of the organization, since Arab nationalism and the LAS in part arose out of an Arab anti-colonial movement. (Pease 2008) The Council also supervises the agreements concluded by member states that falls under the LAS's auspices and is responsible for determining the means by which the LAS cooperates with other international organizations to guarantee peace and security. (Salafy 1989)

As mentioned in chapter 4, the Council does not publish its proceedings and most of its deliberations are secret, although agendas are sometimes leaked to Arab media outlets that publish them. It generally meets twice a year, usually in September and March, and typically convenes in Cairo, Egypt unless the members decide to meet in an alternate location. It can also meet in an extraordinary session if two or more members request the meeting. The Council appoints the Secretary General by a two-thirds majority vote. The Council has seven special committees that it refers issues for further research to before they are deliberated for decision in the Council. These committees are Political, Economic, Communication, Cultural, Legal, Social, and Health. (Middle East Record 1960) The Council is responsible for mediating inter-Arab disputes. In addition to these

committees are the Joint Defense and Economic Councils, to be discussed in more detail below.

### **5.3.2 The Joint Defense & Economic Councils of the LAS**

After suffering a military defeat against Israel in 1948, Arab states became more concerned with security issues in their region and sought to establish a pact for their own collective defense. These concerns prompted the LAS in 1950 to agree to the creation of the Treaty of Joint Defense and Economic Cooperation, in which “the Contracting States consider any [act of] armed aggression made against any one or more of them or their armed forces, to be directed against them all.” (Article 2, n.pag.) However, this pact was largely focused on protecting Arab states from the aggressions of non-Arab states. Bodies for collective self-defense were created, including the Joint Defense Council and the Permanent Military Commission. The Arab collective defense posture put forth by this agreement was unique in terms of LAS mechanics because it stipulated that only two-thirds of the LAS had to agree on a resolution. There is disagreement in the literature, however, whether the main Council has to also approve that resolution and the LAS has not released any documents acknowledging either the Joint Defense Council or the Permanent Military Commission has issued any resolutions to confirm the process for a resolution to be considered finalized by the entire body. (Zacher 1979, Salame 1988) This stipulation, however, suggests that at least at that time, Arab countries placed greater importance on their collective defense than other issues, and that there was a recognition that not all members might agree on an Arab decision to use military capabilities against outside aggressors, but that they desired to act jointly nonetheless. Similarly, the Economic Council of the LAS, created at the same time requires only a majority vote to finalize its decisions. (Pease 2008) While this body does require that the main Council still issue an additional resolution to be considered actionable (Zacher 1979), its creation suggests a shared desire to focus on economic issues and strengthen joint capabilities on

resource-related issues, which could include water. At this time, there was discussion about creating an LAS body, the Arab Tribunal of Arbitration, to facilitate inter-Arab security, but the organ has yet to materialize (Zacher 1979). As a result, the guidelines for conflict analysis and resolution guidelines is vague and in practice the involvement and behaviors of the LAS in mediating disputes appear to have formed organically and in an ad hoc manner depending on the situation and the relationships between its members at the time.

### **5.3.3 LAS Conflict Analysis & Resolution Guidelines**

Despite the efforts of LAS members to work together and facilitate peaceful resolution of inter-Arab disputes, the LAS founders foresaw that there would still be conflicts between LAS members and established general guidelines in its charter to encourage non-violent dispute settlement. Yet, the LAS has not delineated any detailed, formal provisions for inter-Arab conflict resolution, leading many conflicts to be settled through ad hoc, informal interactions. Hassouna (1975) points out that the LAS never developed specific machinery for dealing with dispute settlement partly because the UN was still establishing itself when the LAS was created, and the LAS wanted to make sure that it would be in compliance with whatever final institutional mechanisms the UN adopted. There are several possible reasons why the LAS thereafter did not adopt a framework for inter-Arab dispute settlement. First, the LAS early assumed that there would be few Arab interstate conflicts and may not have judged that it needed more specific rules to carry out its role as arbiter and mediator. (Hassouna 1975) Second, the lack of juridical provisions in the LAS may also be partly cultural. There is an Arab tendency to rely on “mediation and reconciliation in lieu of reliance in formal legal action” with a “dominance of informal over contractual commitments.” (Barakat 1993, 59) Third, the LAS members might have lacked the political will to agree to a framework that they felt could come to challenge their sovereignty sometime in the future.

The 1945 LAS treatise stipulated some measures for Arab interstate conflict resolution, but only in matters where state sovereignty was not in question and where the Arab states involved sought LAS intervention. Articles 5 and 6 establish the role of the LAS as an international arbiter and mediator in such matters and establishes its role to check the aggression of member states against other LAS signatories, forming a basis for collective security. (Zacher 1979, Pogany 1987, Salafy 1989, Yassine-Hamda and Pearson 2014)

Article 5 dismisses the use of force between Arab states, seeking to create a norm of peaceful dispute resolution between LAS signatories:

“The recourse to force for the settlement of disputes between two or more member States shall not be allowed. Should there arise among them a dispute that does not involve the independence of a State, its sovereignty or its territorial integrity, and should the two contending parties apply to the Council for the settlement of this dispute, the decision of the Council shall then be effective and obligatory.

In this case, the States among whom the dispute has arisen shall not participate in the deliberations and decisions of the Council.

The Council shall mediate in a dispute which may lead to war between two member States or between a member State and another State in order to conciliate them.

The decisions relating to arbitration and mediation shall be taken by a majority vote.” (Pact of the League of Arab States, 1945, n.pag.)

It also provides member states an international body to arbitrate between them, if both parties to a conflict choose to ask for LAS assistance. It is also important to note that decisions are taken by majority—and not unanimous—vote, unlike most of the other LAS's decisions. This measure, like the collective security measure outlined in the 1950 Treaty of Joint Defense and Economic Cooperation, can be understood as the LAS placing a priority on the ability of the organization to peacefully resolve conflicts because it makes it easier for the LAS to come to a decision to issue a resolution by requiring fewer parties to agree to the decision. While the exclusion of the parties of conflict from the vote attempts to provide formal objectivity in the LAS as a decision-making body, in

practice, nothing stops the conflict parties from lobbying other LAS members on the sidelines to vote in their favor. Unfortunately, since the Council or LAS rarely publishes its meeting notes, it's hard to know how often, what conflicts, and in what capacities this has happened.

Article 6 provides for what the LAS can and should do in the event that a military attack does occur anyway, suggesting that the LAS foresaw that sometimes it may not be able to bring about a successful resolution to an inter-Arab dispute or that an Arab state would prioritize its own needs as a country—a more realist point of view—rather than what is viewed as best for the community of Arab states.

“In case of aggression or threat of aggression by a State against a member State, the State attacked or threatened with attack may request an immediate meeting of the Council.

The Council shall determine the necessary measures to repel this aggression. Its decision shall be taken unanimously. If the aggression is committed by a member State the vote of that State will not be counted in determining unanimity.

If the aggression is committed in such a way as to render the Government of the State attacked unable to communicate with the Council, the representative of that State in the Council may request the Council to convene for the purpose set forth in the preceding paragraph. If the representative is unable to communicate with the Council, it shall be the right of any member State to request a meeting of the Council.” (Pact of the League of Arab States, 1945, n.pag.)

Noticeably, Article 6 establishes the need for a unanimous vote, excluding the disputing member states, since the member states likely would thwart any LAS resolution to meet their own objectives. The Article is vague, however, in terms of what sorts of tools or options the LAS might employ in inter-Arab dispute, leaving such decisions to be made on an ad-hoc basis. These treaties have at a minimum outlined the intent of Arab state governments to mutually protect and collectively act to defend each other and expand cooperation. The next section explains what sub-organizations the LAS has created focused on water issues, including transboundary river waters, and new efforts by the LAS to establish an institutional framework to manage shared river agreements.

### **5.3.4 LAS Sub-organizations with Water-related Missions**

The LAS has developed several sub-organizations early in its existence and in recent years to help coordinate Arab decision-making over shared waters, including transboundary river waters; early attempts at these institutions were short-lived and the others are still in their nascent stages of development, underscoring why it's important to consider the roles over time that the overall LAS has played in these matters. In response to Israel's construction of the NWC in the 1950s and 1960s (explained in section 2), the LAS established several organizations, which gradually ceased operations or were never fully implemented because of a lack of political will among LAS member states or a lack of funding. After the 1967 War and the gradual decline of these organizations, the LAS's Arab Center for the Study of Arid Zones and Dry Lands (ACSAD) was formed and serves as a technical arm of the LAS focused on water use for irrigation; however, it has become more active since the 2009 establishment of the Arab Ministerial Water Council (AMWC). (Adapting to Climate Change in the Water Sector in the MENA Region 2004)

The creation of the AMWC signifies a milestone in the LAS's recognition of regional water challenges and intention to foster inter-Arab decision-making to addressing water scarcity, including conflicts over transboundary river waters, and to develop a regional framework to guide treaty negotiations over these issues as mentioned in chapter 1. This section explains in more detail the LAS's use of its sub-organizations to coordinate Arab responses to common water issues and how the 2009 formation of the AMWC helps to shape hypothesis 5 about the LAS's engagement in transboundary river interactions in more recent years.

The LAS's response to Israel's NWC project construction prompted the formation of several linked technical organizations, in addition to a joint security force, with an aim to protect Arab utilization of the Jordan River Basin. In 1960, the LAS Council established the Water Experts Technical Committee (WETC) to research and provide

recommendations for how to use the Jordan River waters for the benefit of Arab states and the Palestinians. However, the LAS Council had a difficulty reconvening because several Arab governments experienced coups, causing decision-making to stall over the next few years. The LAS held its first Arab Summit in January 1964, attended by LAS members' heads of state, with a focus on making an inter-Arab decision about how to respond to Israel's NWC project. This is notable compared to the earlier history explained because at this time there was much inter-Arab discord. Then-Egyptian President Nasser publicly declared "In order to confront Israel, which challenged us . . . when its Chief-of-Staff stood up and said, 'we shall divert the water against the will of the Arabs, and the Arabs can do what they want' a meeting between the Arab Kings and Heads of State must take place as soon as possible, regardless of the conflicts and differences between them." (quoted in Dawisha 2003, 244) The WETC presented technical plans for a diversion project, that if fully implemented would have reduced Israel's water supply for the NWC by one-third. (Shemesh 2008)

At this summit, the Jordan Diversion Authority (JDA) or Jordan Waters Organization, was created to coordinate the actions of Syria, Lebanon, and Jordan in response to the construction of Israel's NWC; it was affiliated with the WETC. As explained in a memoire by then-King of Jordan Hussein bin Talal, "On the agenda of this first summit conference, top priority was given to an examination of the available means of preventing Israel from diverting the waters of the Jordan River to its own benefit. Our problem, obviously, was to protect Arab interests. But how?" (Talal 1969, 13) To divert the headwaters of the Jordan River, Lebanon was tasked by the JDA to develop a diversionary pumping station, the Syrians were instructed to build a dam near the Israeli border, and Jordan was also told to start construction on a dam. The LAS provided some financing for these projects. At the same time, the Arabs created a joint military coordination force, the United Arab Command (UAC), to provide protection for the river

projects, as well as for other Arab interests. (Mutawi 1987, Shemesh 2008) As Talal explains,

“At this period, the use of force was out of the question in view of the [poor] political and military situation in most of the Arab countries. Therefore we decided that, until we were ready to use our arms, our best solution was to divert certain tributaries of the Jordan ourselves in order to reduce the damage that would result from the Israeli irrigation projects. But this could only be palliative. At the same time, it became clear to us that we had to set up an organization whose goal would be the creation of a real Arab armed force coordinating all our respective military means against an eventual Israeli threat. This organization was named the 'United Arab Command.’” (1969, 13)

However, the JDA and the UAC programs ran out of funding within months, and the UAC faced additional problems, that rendered both LAS sub-organizations short-lived efforts of Arab collective action in transboundary river water conflict with Israel. The aforementioned sporadic border attacks against Syria's project—coupled with Israel's superior air force and capture of strategic land that allowed them to more easily attack Syrian efforts to build the canal—halted the dam's construction. Lebanon's pumping station project ceased because it ran out of money. (Laquer 1970) Similarly, Arab countries provided some financial resources to the upstanding of the UAC, but when it was determined at subsequent Arab summits that the UAC required more funds to at least somewhat standardize their operations, equipment, and training across the different Arab contingents of its military, LAS members failed to deliver the necessary monies. The UAC was slow to materialize and largely left Syria, Lebanon, and Jordan dependent on their own militaries to protect the portions of the Arab diversion project which fell within their territories. (Shemesh 2008) The UAC was also supposed to be stationed in the Arab countries of the Jordan River Basin, Syria, Lebanon, and Jordan, but all of states had reservations about accepting troops from other countries because they resisted a foreign presence, albeit an Arab one, and also because they were afraid that the UAC's troop locations could give Israel a reason to attack their countries. (Mutawi 1987) For this combination of reasons, these organizations petered out shortly after their creation.

The LAS, however, quickly established a less-controversial technical water arm following the end of the 1967 war to enhance inter-Arab coordination on water issues, including irrigation for agriculture, sustainable water use, desertification, and drought monitoring. This sub-organization, the Arab Center for the Study of Arid Zones and Dry Lands (ACSAD), was created in 1968. The ACSAD provides research, training programs, and technical advice and assistance for LAS members and serves as a conduit for Arab and international organization technical cooperation. (ACSAD 2014) There are no comprehensive descriptions of the ACSAD's historical programs available to the public, making it difficult to get a good understanding of how this technical arm has worked over the decades. However, at least in the 1970s to 1990s, ACSAD worked closely with the UN on desertification programs, helping to provide training and research to support UN and other international organization efforts to combat desertification in the Arab world. Despite these efforts, desertification remains a serious problem. (Abahussein et al 2002) However, the ACSAD has a new, high-level of documented activity in recent years since the 2008 founding of the Arab Ministerial Water Council (AMWC), which has given the ACSAD new organizational responsibilities, such as coordinating efforts to mitigate and manage climate change in the region. (ACSAD 2014)

As the name suggests, the AMWC consists of all LAS members' ministers who manage water-related portfolios in Arab governments and thus is a hierarchically more senior decision-making body within the LAS, as well as being a political body. The LAS established the AMWC, which was actually constituted in 2009, to help facilitate inter-Arab government decision-making and to “reflect a regional political will to elevate water issues from the the traditional technical level to the political and especially regional level.” (League of Arab States 2012) The AMWC receives technical advice from the experts in the ACSAD, along with other international and regional organizations—some of which are also affiliated with the LAS—which worked together in 2010 to draft an

Arab Water Strategy. (Adapting to Climate Change in the Water Sector in the MENA Region 2014) In 2012, the AMWC adopted the Strategy, a document that sets regional goals for inter-Arab water coordination until 2030, and earmarks indicators for evaluation every five years. One of the six main focus areas of the Arab Water Strategy includes “established mechanisms for the protection of Arab water rights in shared resources.” (Action Plan for the Arab Water Security Strategy 2012, n.pag.) As part of the Strategy, the AMWC also has set objectives that by 2020, LAS members will sign permanent agreements on shared water resources in the Arab region, including cross-border rivers. (Action Plan for the Arab Water Security Strategy 2012) In addition to ACSAD, another LAS-affiliate sub-organization, the Center for Water Studies and Arab Water Security (CWSAWS), also contributed to the formation of the Strategy. The CWSAWS is tasked by the AMWC with helping to develop the portion of the Strategy that is intended to serve as a framework to guide the creation of such permanent agreements for ratification.

Since 2010, the CWSAWS has been consulting with Arab governments and international organizations to this end. The document is known as the Framework Convention on Shared Water Resources Between Arab States (FCSWRAC). The FCSWRAC “seeks to foster consensus on a core set of principles that can support bilateral and basin-level agreements on water sources shared by Arab countries. The framework draws upon a vision that fosters cooperation and participation; equitable, reasonable, and sustainable use; and conflict prevention and resolution through peaceful means.” (Managing Water Under Uncertainty and Risk 2012, 716) The draft was to be presented to the AMWC for approval in 2015; after the AMWC's approval is granted, it will then be presented to the LAS's Political Ministerial Council for adoption, after which, it will be open for ratification by the governments of the LAS members. (League of Arab States 2014)

In sum, the different sub-organizations of the LAS show that it has been interested in being engaged in transboundary river water issues through times of high inter-state tensions with riparian partners, as well as times of peace, and suggests shifts in how it views its focus in these matters over the course of its history. Initially, its creation of the WETC, JDA, and UAC suggests that it perceived itself primarily as a protector of Arab riparian water rights against non-riparian partners. Following the 1967 war, with the formation of the ACSAD, it concentrated on shared waters, including cross-boundary rivers, in terms of agricultural use and how to best coordinate technical expertise to make the best use of these waters and warn about drought conditions. Finally, in recent years, the LAS has turned its gaze towards facilitating high-level political decision-making among its members with the formation of the AMWC, which is working with subordinate, non-political LAS organizations to develop and institutionalize a set of principles to guide transboundary river management going forward for the Arab region in the future. *The LAS's creation of the AMWC helps to provide a specific sub-organization charged with leading interstate interactions on transboundary river issues, coupled with recent efforts to establish a framework, shapes the ending of hypothesis 5, that the LAS has been involved in more transboundary river water interactions since 2008 compared to 1967-2007.*

The next section helps to give context about how the LAS functions broadly from the perspective of the interviewees, including some of those associated with its water-focused affiliates and UN and US officials who have interacted with the LAS.

### **5.3.5 Interviewee Observations About the LAS's Modus Operandi**

Interviewees impressions of the LAS help to give context as to how the organization functions broadly and the challenges it faces: they largely described it as a difficult organization to work in or with, that is a relatively resource-poor organization,

that is personality-driven, and that it is a difficult bureaucracy to navigate; however, they stressed that it is an important RO with which to engage the Arab world.

LAS officials and those looking to work with them face bureaucratic hurdles and strong leadership and interpersonal connections are key to being able to accomplish objectives. Deputy Chief LAS Representative to the US Alfonse and UN Team Lead for the Arab Region Khoday acknowledged that there are bureaucratic inefficiencies and some lackluster officials among its ranks. US diplomats Crocker and Watkins agreed, but said that most of the top level officials within the organization are very capable administrators. Watkins added that much of the LAS's secretariat staff is Egyptian and some of them are seconded from the Egyptian Ministry of Foreign Affairs and sometimes return to the MFA. Watkins believed that under LAS Secretary-General Amr Moussa, who served as the organization's leader from 2001-2011, the organization had become more effective because he provided more direction and leadership to the staff and had a policy vision. Alfonse, Crocker, and US diplomat Wills emphasized that it is pertinent to know which LAS officials one needs to go to on what issues and that one often has to be introduced by a mutual contact, making it a difficult organization to navigate for LAS employees and especially outside officials. This dynamic also made the effectiveness of the organization and its functions dependent on its staff members' roles and their connections with each other and outside interlocutors and IGO counterparts. (Watkins 2014, Alfonse 2016, Crocker 2016, Khoday 2016, Wills 2016)

Several interviewees lamented the LAS has unreliable resources, limited authority, and dated forms of communication, which can hinder its operations. Crocker described the LAS as a small operation that is constrained by its lack of power and resources. Similarly, Eiran described the LAS as a secretariat that was dependent on the member states for its authority, saying that it was not a “decision agency.” Watkins and CWSAWS President Ksia said that the LAS does not have many resources in terms of

finances and that the LAS sometimes runs a budget deficit because LAS member countries do not always pay their arrears on time. (Erian 2014, Ksia 2014, Alfonse 2016, Crocker 2016, Wills 2016)

Some interviewees also stressed that despite the LAS's imperfections, it is a key RO to engage with because it provides a space for common and diametrically-opposed Arab viewpoints to be raised that might not be raised in other fora. Crocker said that in recent years, Sudan and Egypt had raised their collective concerns about changes to management of the Nile River waters because of upstream dam construction, providing an outlet for them to discuss a shared problem. In terms of airing grievances and moving inter-Arab relationships forward, Watkins pointed to the 2009 tryst between then-Libyan President Muammar Gaddafi and Saudi Arabian King Abdullah at an LAS Summit; the leaders had not spoken in several years and the meeting provided them an opportunity to complain and then have their conflict mediated by LAS officials. (Watkins 2014, Crocker 2016) Additional insights into how the LAS is a key RO to work with to provide technical and financial assistance for river water projects will be discussed in the next chapter.

#### **5.4 Summary: The LAS is an Organ of Arab Nationalism**

In sum, the LAS is an institution that embodies Arab nationalist sentiments and can be used as a tool of collaboration for advancing Arab interests. LAS guidelines and rules put a premium on protecting the sovereignty of member states and providing collective security, on decision-making through consensus, on preventing violent conflict and serving as a mediator, and on facilitating and inter-Arab economic cooperation. LAS treaties have outlined a general role for the group as an arbiter and mediator, but provides little guidance as to how the LAS is to fulfill its mandate leaving it flexible and suggesting that it probably serves in these capacities on an ad hoc basis and in a flexible manner, making it pertinent to explore in detail how it has fulfilled such roles in an issue

area like transboundary river water management. This also suggests that the political environment is key to the ability of the LAS members to decide for the organization to become involved in interstate interactions over shared river waters; the historical narrative crafted describes high and low points of Arab nationalist sentiments that shape the political environment.

Arab nationalist sentiments were strongest from the early 20th century until the conclusion of the 1967 Six-Day War. Notably, the LAS formed water-related organizations in 1964-1967 to divert the Jordan River, suggesting that there will be publicly-recorded data that capture these events and that the event data will for these years will show higher LAS engagement compared to following decades. However, since 1967, Arab nationalist sentiments weakened and new cleavages formed in the Arab world that tend to make it more difficult for LAS members to come to a consensus; moreover, new regional sub-groupings and organizations to represent them, such as the GCC, formed and offered alternatives to the LAS for Arab countries to coordinate affairs. The LAS since 1967— and until 2008—has focused its efforts on Arab water coordination in the agricultural sector and while such efforts might have included irrigation from river basins, this suggests that there will be less LAS interactions over transboundary river water events during this time frame relative to other periods, especially with regards to acts of intense levels of conflict with non-Arab states. There may be a few anomalies, however, during this time period, such as during the Iraq-Iran War when the Shatt al-Arab waterway was contested. Since 2008, the LAS's recognition of regional water challenges and its creation of high-level political decision-making body focused on joint water issues, the AWMC, and the AWMC's adoption of an Arab water strategy and tasking of LAS-affiliated sub-organizations with river water governance issues suggests that there will be a new level of engagement on these topics in recent years. While it is difficult to tell because of still-unfolding events in the Arab Spring, some hypothesize

that there might be renewed nationalist sentiments to work through the LAS, which suggests there also might be more LAS activities since 2011, possibly to include shared river water interactions. Interviewees explain that the LAS has bureaucratic hurdles to overcome, however, that constrain its ability to operate, even if member states start to go to it more regularly for assistance.

The next section explores the results of the mixed methods research approach, which helps to elucidate how and when nationalist concerns might matter in international Arab river water actions and the frequency and type of involvement of the LAS in such activities.

## 6. RESULTS & ANALYSIS

The results of the mixed-methods research approach prove hypotheses 1 through 4, but produce some surprising conclusions which partially invalidate hypothesis 5 and illustrate that hypothesis 6 is incorrect. The results largely lend support to the body of literature on environmental and water conflict which argues that upstream-downstream geopolitics matters and that increasing river water scarcity is likely to produce a rise in both international conflicts and cooperation over transboundary river water management—and, to a lesser degree—also helps lend credibility to the major IR theories discussed in the literature review. This study's findings indicate that:

- Compared to the rest of Earth, the Arab world has experienced some of the most frequent, intense events of conflict and cooperation over transboundary river waters.
- The LAS has a low-level of engagement in such events and that it is most frequently a party to disputes rather than acts of collaboration.
- Among non-Arab states, it most often contributes to tensions, while among Arab states, the LAS tends to facilitate collaborative acts.
- In each interaction, the LAS has played one or a combination of roles as a regulator, a forum, or a provider-pooler of resources.
- The LAS is most frequently involved in international transactions concerning river water scarcity compared to other river water issues.

- The LAS has been involved in transboundary river water events on an ad hoc and infrequent basis.
- That the LAS has been most active regarding the Tigris-Euphrates-Shatt al-Arab River Basin and has had the greatest number of interactions with Turkey among non-Arab states.
- *Combining all of the results, the main takeaway is that the LAS tends to be involved in conflictive interstate interactions, usually when a downstream Arab country is concerned that an upstream non-Arab country's large river development project will reduce its water quantity. The downstream Arab country looks to the LAS to help voice its complaints about the project to the international community.*

First, I provide general context as to how many events have occurred between riparian partners in the Arab world in comparison to other international river basins and the intensity of those interactions; this was achieved from collating the data that I isolated of all the Arab river basin events and comparing it with the BAR data from the rest of the world from 1948-2008. This helps to provide a sense about the level and types of conflict and cooperation concerning transboundary river waters in the Arab world and its immediate region in contrast to the rest of the international community. I show that Arab river basins have had some of the most frequent international transactions about river water issues and have some of the most highly-conflictive events on Earth. This finding lends support to extant environmental conflict and water conflict literature that posits that there are more international disagreements and cooperative interactions—and because this is one of the most arid regions on Earth—that natural resource shortages, or in this case water scarcity, is a prevalent component of conflict.

Second, I will explain that overall, the LAS has been involved in few international river water transactions and that its engagement has been ad hoc, but that this level of

interaction is on par with other IGOs and ROs. Interviews with LAS, UN, and US officials confirm the results of the quantitative analysis of event data, adding context that most interstate interactions among Arab riparian partners and between Arab and non-Arab countries that share rivers tend to happen on a bilateral basis. With quantitative analysis of all of the international river basin events data pertaining to the LAS, I find that the RO on average has had conflictive interactions with non-Arab states and cooperative interactions with Arab states, illustrating that hypotheses 2 and 3 are correct. This conclusion furthermore strengthens claims that resource scarcity is likely to contribute to international disputes and acts of collaboration.

Then, to test for hypothesis 1, I undertake quantitative and qualitative analysis to learn more about if, when, and how the LAS served as a regulator, as a forum for debate and technical assistance, and a pooler-provider of resources in international river basin interstate interactions. I discover that the LAS has served in one or a combination of these capacities in each event datum and interview responses confirm this finding. Quantitative analysis illustrates that the LAS most often serves as a regulator and forum in transboundary river water interactions; and that in these capacities in which it serves, most of these events are conflictive. However, with regards to its role as a pooler-provider—the capacity in which it least-often serves in in transboundary river water interactions—most of its events are cooperative and are concentrated among Arab countries only. The AWF sessions and qualitative analysis help to add context as to the other IGOs and ROs that the LAS works with to provide economic and technical assistance and the regulatory framework for transboundary river basins that the LAS is working to establish. Thus, hypothesis 1 is shown to be correct. The findings that in its roles as a regulator and forum it is most often involved in conflictive events, and on the other hand, that as a pooler-provider, the LAS is more often involved in collaborative

events, again lends support to the most recent body of literature on water scarcity that highlights that water shortages are likely to lead to both conflict and cooperation.

Next, I test for hypothesis 4 that conjectures that the LAS has most often been involved in events concerning river water scarcity compared to other river water-related events. Quantitative analysis reveals that water scarcity is indeed the most frequent, primary issue area of all international river basin interactions involving the LAS; this validates hypothesis 4. This conclusion furthermore strengthens claims of environmental and water conflict literature that resource scarcity is likely to contribute to international disputes and acts of collaboration.

Then, I test for hypothesis 5 concerning the LAS's level of involvement during different time periods, which postulates that it is most engaged when Arab nationalist sentiments were high—up until the end of the 1967 war—and since it established an institution to coordinate water issues in 2008. I use quantitative analysis to calculate the annual average rate of events in which the LAS was engaged to be able to make even comparisons over unequal time frames. This approach reveals that the LAS has been involved in transboundary river water events at an increasing rate across the different time periods under examination. Thus, the first part of hypothesis 5 is invalidated, because it was actually involved in a higher rate of events from 1968-2007 compared to the previous time frame; however, the second part of hypothesis 5, that the LAS was involved in more transboundary river water events 2008-2014 compared to 1968-2007, is correct. This finding strengthens realist claims that material holdings, in this case river water, are more important in driving international interactions rather than identity, but also supports NI identification of trends that more countries are increasingly turning to IGOs or ROs to facilitate interstate interactions.

Next, I test for hypothesis 6 that supposes that the LAS has been more involved in transboundary river interactions with Israel than other non-Arab countries. I separate out

events by river basin to see which river basins in which the LAS has been most actively engaged in, which also enables analysis of each river basin country the LAS has interacted with; I find that it has been most active in the Tigris-Euphrates-Shatt al-Arab river basin, and regarding non-Arab countries, it has been most engaged with Turkey. Therefore, hypothesis 6 was incorrect. This finding is interesting in that, despite the Arab's opposition to Israel that has often united them more than many other causes, and that the bulk of violent interactions in the region and the world over river waters have been between Israel and its Arab neighbors, the LAS has been more engaged with Turkey.

In conclusion, by examining all of the mixed-methods results holistically, I conclude that Arab countries which are downstream tend to seek the LAS's involvement in interstate river water transactions to protest the construction of a large river development project by a non-Arab country when the Arab countries are primarily concerned about a decrease in their river water flow. This finding overall allows for a refinement of the theoretical framework of hydro-hegemony and concludes that ROs like the LAS can supplant individual countries as the hydro-hegemon and shift riparian power dynamics in the favor of weaker states.

### **6.1 Arab River Basin Events Compared to Other International River Basins**

From 1948-2008—the years for which information on all international river basin event data is available—several major Arab river basins have had the highest number and intensity of disputes and collaboration compared to any other river basin in the world, lending support to the most recent body of extant literature on water conflict that hypothesizes that water scarcity is likely to fuel both interstate disputes and collaboration. Compared to any other international river basin on Earth, and as depicted below in Table 6, the Jordan River Basin has the largest number of incidents of disagreements and cooperation; the Tigris-Euphrates-Shatt al-Arab River Basin has the second-highest

number; and the Nile River Basin the seventh-highest number of such events. Notably, these three river basins also have the highest number of intense conflicts compared to any other river basin during this time frame. The Jordan River Basin far outranks all other river basins, with 29 events that fall on the BAR scale between -6 and -4. As noted in Table 3, a -6 interaction intensity denotes extensive war acts (without an actual war being declared), such as large-scale bombing of military installations and territorial invasion; a -5 event intensity describes small-scale military acts, such as border skirmishes and the annexation of occupied territory; and events graded -4 represent political-military hostile actions, such as limited and sporadic terrorist actions and breaking diplomatic relations. The Nile and Tigris-Euphrates-Shatt al-Arab River Basins, which tie for the second-highest number of such level of conflicts compared to other river basins in the world, both only have three similar events. The finding that the major Arab river basins have had some of the most frequent, intense interactions over transboundary river water conflicts and cooperation stresses the importance of stakeholders and CAR practitioners of focusing on trying to improve shared management of the scarce river waters in this region. This conclusion particularly supports the existing body of research discussed earlier, that finds that a shortage of international river waters tends to increase positive and negative interactions between states (Toset, Gleditsch, and Hegre 2000; Furlong, Hegre, and Gleditsch 2006; Hensel, Mitchell, and Sowers 2006); it is especially relevant to the 2006 study of Hensel, Mitchell, and Sowers that discovers that countries that share scarce river waters are more likely to engage in militarized or violent disputes, but also are more likely to cooperate.

However, not all Arab river basins have had the same level of interstate interactions; states in the Nahr El Kebir and the Medjerda River Basins have had some of the lowest number and least-intense interactions between states of any river basins. Neither river basin has any intensive event conflicts that fall on the BAR scale from -6 to

-4; the Nahr El Kebir has only 4 interactions while the Medjerda has only 1. This finding underscores the inconsistency of state interactions from river basin to river basin across the region and plays into the inconsistency of LAS involvement from river basin to river basin in subsequent findings to be discussed in the following sections. In the case of the An Nahr El Kebir River Basin shared by Turkey and Syria, the countries have other major sources of river waters, which could explain the difference in levels of interactions for these two river basins. In the case of the Medjerda River Basin, shared by Algeria and Tunisia, the relatively low-level of engagement could be due to a number of factors: it is shared only between two Arab countries; Algeria relies most heavily on groundwater reservoirs for its freshwater supply (Regional Overview: Availability of Freshwater 2000); even though water is scarce in Tunisia, public service provision of potable water is the best in the Middle East and North Africa region, suggesting there is little pressure on the government to enhance its water supply (WHO/UNICEF Joint Monitoring Program for Water Supply and Sanitation n.d.); and both countries use water technologies such as wastewater re-use and desalination to increase their freshwater supplies. Additional research outside the scope of this dissertation would be necessary to confirm the reasons for the relatively low-level of interactions in these basins compared to other Arab basins.

Now that I have explained the overall level of international activities in the Arab river basins as compared to river basins in the rest of the world, in the next section I will start to elucidate my findings about the LAS's level of engagement in transboundary river water disputes and acts of cooperation.

**Table 6: The Number and Intensity of Events in Arab River Basins Compared to Other International River Basins, 1948-2008**

<b>Arab River Basin</b>	<b>Ranking of number of events compared to all other international river basins</b>	<b>Number of events of conflict or cooperation</b>
<b>Jordan</b>	<b>1st</b>	<b>250</b>
<b>Tigris-Euphrates-Shatt al-Arab</b>	<b>2nd</b>	<b>202</b>
<b>Nile</b>	<b>7th</b>	<b>78</b>

Orontes (Asi)	13th (tied with two other river basins)	16
Senegal	14th (tied with one other river basin)	13
Congo (Zaire)	22nd (tied with 4 other river basins)	5
Lake Chad	22nd (tied with 4 other river basins)	5
Niger	22nd (tied with 4 other river basins)	5
Nahr El Kebir	23rd (tied with 4 other river basins)	4
Medjerda	26th (tied with 36 other river basins)	1

Source: International Water Event Database: 1950-2008. Transboundary Freshwater Dispute Database, Department of Geosciences, Oregon State University. Web. 19 September 2012.

## 6.2 The LAS's Few Interactions in Transboundary River Water Events

In general, the LAS has not been involved in many instances of international river water disputes and collaboration throughout its history when compared to all such events among its member states. By isolating all events for the ten Arab river basins and as described in Table 7, I was able to determine that there were 1,124 total interactions from 1948-2008 in all international river basins which contain at least one Arab country. Of these 1,124 events, the LAS was engaged in only 43—or about 4 percent—of all river basin interactions in the Arab world during this time period. As noted earlier, the BAR does not contain data for 2008-14 to make a similar comparison for more recent years about the LAS's overall rate of involvement. However, this level of activity is on par with that of other international and regional organizations' attempts to resolve similar international conflicts. A study of 30 IGOs' and ROs' involvement in conflict management of interstate disputes over rivers, territorial, and maritime issues from 1861-2001, found that IGOs and ROs were involved in only 10 percent of all interstate attempts to end such disputes. (Hansen and Nemeth 2008) My findings lend support to this study which suggests that many states try to resolve interstate transboundary river water conflicts amongst each other instead of using an IGO or RO to intervene.

As mentioned earlier, the creation of new event data in which the LAS was involved in international river water conflicts and cooperation only resulted in 13 such incidents. This brings the entire sample size from 1948-2014 to 56 events for analysis in this study. This regional approach produces a medium-sized sample as anticipated and is appropriate for the mixed-methods research methodology.

**Table 7: Arab Basin River Events and LAS Involvement**

<b>Indicator or Measurement</b>	<b>Number of Events</b>
All Arab river basin events 1948-2008	1124
Total Number of Events with LAS Involvement 1948-2014	56
LAS involvement in all Arab river basin events 1948-2008	43
LAS involvement in all Arab river basin events 2009-2014	13

All 13 interviewees made the same observations that confirm what the data suggest, that the LAS is involved in few transboundary river water disputes and acts of collaboration. Of the 13 interviewees, most could not name specific historical transboundary river water events in which the LAS had been an actor, but said that they knew that the LAS had been somewhat involved in regional river water conflicts and acts of cooperation. LAS Deputy Chief Representative to the US, Sameh Alfonse, said that he knew that the LAS been a party to international river water issues and planning in the lead up to the 1967 Six-Day War, but did not know any details. (Alfonse 2016) President of the CWSAWS, Chahra Ksia said that most interstate actions in the region concerning shared river waters took place on a bilateral basis, which helps to explain why the LAS hasn't been involved in more events. (Ksia 2014) Similarly, US diplomat Todd Watkins said that the LAS had not been more involved in Nile River waters negotiations in the past two decades because it was not seen as an impartial arbiter so non-Arab countries

were less willing to engage with it; he also suggested that the LAS was not more active on international river issues because the LAS is a consensus-driven organization and it has difficulty achieving agreement about how to handle such issues. The LAS does not have that many instances of financial or technical cooperation because countries tend to prefer to provide aid bilaterally so that they gain more political capital with the country that they are helping; they might decide to go through the LAS to provide assistance if they want political cover for a project that might be controversial or to jointly press the West on a technical or development assistance issue. (Watkins 2014)

LAS Senior Advisor for Climate Change and Disaster Risk Reduction Wadid Erian also explained that the LAS had missed some opportunities to engage in transboundary river water conflict resolution, which contribute to its low-level of engagement on such issues. He explained that in 1973, Lebanon decided against discussions with Israel about the Litany River and suspected Israeli plans to connect it by construction tunnels to the Jordan River—a project that would then make it part of the international river basin—because Lebanese leaders perceived that it would make them appear weak to the public Israelis. He suggested that the LAS supported Lebanon's decision by not engaging in any talks. (Erian 2014) One interviewee respondent, Khaled Abu-Zeid, the AWC's Director of Technical Programs and the Regional Water Director for the Center for Environment and Development for the Arab Region and Europe (CEDARE), did not know of the LAS's historical involvement in transboundary river water issues, but noted that its affiliates were working with other IGOs to try to develop a conflict resolution mechanisms such as the FCSWRAC explained earlier for transboundary river water management. (Abu-Zeid 2014) Several respondents were not even aware of the FCSWRAC that is currently awaiting the LAS's approval. (Crocker 2016, Khoday 2016, Wills 2016)

Similarly, at the AWF, there was little discussion about the LAS's involvement in transboundary river water disagreements and collaboration throughout its existence, except for efforts in just the past few years. There was much discussion about the LAS's work in recent years through its affiliate organizations and its partnerships with other IGOs to try to set standards for its regulatory FCSWRAC for guiding international river basin management, establish technical water monitoring reports to track the availability and quality of river and other waters in the region, and the financing and development of infrastructure development projects in Arab river basins, which will be discussed in more detail in section 4.

### **6.3 Range & Average of Event Intensity for Interactions Involving the LAS**

The LAS has been involved in a variety of negative and positive interactions for the 66-years of available event data, but it has most often been engaged in interactions concerning disputes rather than incidents of cooperation regarding international river basins. According to the compilation of all event data in Table 8, the most negative intensity of an event that the LAS was a party to is -5, representing small scale military acts on the BAR event intensity scale; the most positive event intensity the LAS has been involved in is 4, signifying non-military economic, technological, or industrial agreements. Of the 56 total events that the LAS has been involved in, 30 events are negative, or about 54 percent of all of its interactions, indicating that members states look to the LAS more frequently to be engaged in conflicts rather than facilitate collaboration, no matter what capacity it might serve in as a regulator, a forum, or a pooler-provider of resources. In fact, the LAS was most frequently involved in disputes rating -2—representing strong verbal expressions displaying hostility in interaction on the BAR event intensity scale—or 27 percent of all its interactions.

**Table 8: Range and Frequency of Event Intensity Involving the LAS, 1948-2014**

<b>Primary Actor and Target Event Intensity</b>	<b>Number of Events</b>	<b>Percent of Total Events (rounded to the nearest integer)</b>
-5	1	1
-4	0	0
-3	7	13
-2	15	27
-1	7	13
0	2	4
1	7	13
2	4	7
3	5	9
4	8	14

In terms of average event intensity, however, the LAS has been involved in roughly the same degree of conflicts and acts of collaboration over transboundary river water sources regarding interactions with all states. While combining all events across the entire 66-year's worth of event data, the mean intensity of interactions is 0, as depicted below in Table 9. This indicates that despite periodic increases in international river water disagreements or collaboration involving the LAS, its role over the entire time frame has been both as an organization for contributing to disputes and for participating in cooperative efforts to approximately an equal degree.

Yet, with regards to just Arab-non-Arab interactions it tends to be involved in low-intensity conflicts while it is often involved in a higher-degree of collaborative acts amongst Arab countries. The mean event intensity for only non-Arab-Arab events is -1, which on the BAR event intensity scale represents mild verbal expressions displaying discord in action, such as low-key objection to policies or behavior. Thus, the LAS has tended to be engaged in low-level conflicts with non-Arab riparian partners on its members' behalf. In comparison, it is involved in a stronger degree of cooperation on average among interactions involving only Arab states. The mean event intensity for all

events involving the LAS amongst Arab countries is 2, representing official verbal support of goals, values, or regime on the BAR event intensity scale.

In line with these quantitative findings, Watkins said that the LAS is an organization that is more effective in terms of de-escalating inter-Arab conflicts and promoting Arab cooperation, rather than promoting Arab-non-Arab cooperation. He suggested that LAS members tend to press Arab governments who are in a conflict to employ the LAS's services as a mediator to resolve the problem and keep it internal to the Arab world to discourage outside involvement, such as that of other IGOs and Western governments. (Watkins 2014)

Overall, these findings lend support to IR NI and social constructivist ideas, and again, the most recent body of research on river water conflict and cooperation that shows that river water scarcity, such as in this arid region, is likely to drive both relationship dynamics. As NI theories suggest, Arab states work through the LAS, and on average, achieve cooperation under its auspices with other LAS members. While the LAS tends to be involved in cooperative acts with its members, as an identity-based organization, it tends to be involved in negative interactions with outsiders who do not share the same identities, reinforcing social constructivist concepts that identity considerations matter in foreign policy approaches.

**Table 9: LAS Involvement in Arab River Basin Events By Average Level of Intensity, 1948-2014**

<b>Time Frame and Countries</b>	<b>Average Event Intensity (rounded to the nearest integer)</b>
1948-2014 all countries	0
1948-2014 between Arab and non-Arab countries	-1
1948-2014 between Arab countries	2

#### 6.4 The LAS as a Regulator, Forum, & a Pooler-provider of Shared Resources

Hypothesis 1 postulates that the LAS has sometimes been involved in transboundary river water events by serving as an interstate regulator, by providing a forum for information exchange, and by providing pooled resources to achieve shared interests. To test for this hypothesis, I conduct quantitative and qualitative analysis on the 56 events that have been coded for each of these roles to see in which cases the LAS has served in these capacities and what insights can be gleaned from them. As noted previously, these roles can overlap and are not necessarily exclusive; as a result, some event data are indicative of the LAS serving in more than one of the three capacities and therefore the event data in all three separate categories do not add up to 56. The quantitative analysis shows that the LAS has served in at least one of each of the three roles in each event datum; qualitative analysis of the data, combined with interviews and the AWF proceedings, help to add context about how the LAS served in these capacities in transboundary river water conflicts and acts of collaboration.

**Table 10: The LAS as a Regulator, a Forum, and a Pooler-Provider of Shared Resources**

The LAS as a Regulator	
Number of Events	33
Percent of Total LAS Events	59
Mode of Primary Actor and Target Event Intensity	-2
Greatest Negative Event Intensity	-3
Greatest Positive Event Intensity	2
Average Event Intensity (rounded to the nearest integer)	-1
Average Event Intensity Between Arab and non-Arab countries (rounded to the nearest integer)	-1
Average Event Intensity Between Arab countries (rounded to the nearest integer)	2
Most common issue areas	Water quantity; Events relating to infrastructure or development projects
The LAS as a Forum	
Number of Events	44

Percent of Total LAS Events	79
Mode of Primary Actor and Target Event Intensity	-2
Greatest Negative Event Intensity	-5
Greatest Positive Event Intensity	4
Average Event Intensity (rounded to the nearest integer)	0
Average Event Intensity Between Arab and non-Arab countries (rounded to the nearest integer)	-1
Average Event Intensity Between Arab countries (rounded to the nearest integer)	2
Most common issue areas	Water quantity; Events relating to infrastructure or development projects
<b>The LAS as a Pooler-Provider of Shared Resources</b>	
Number of Events	13
Percent of Total LAS Events	23
Mode of Primary Actor and Target Event Intensity	4
Greatest Negative Event Intensity	-3
Greatest Positive Event Intensity	4
Average Event Intensity	2
Average Event Intensity Between Arab and non-Arab countries	-1
Average Event Intensity Between Arab countries	4
Most common issue areas	Events relating to infrastructure or development projects; Technical cooperation/assistance

#### **6.4.1 The LAS as a Regulator of Transboundary River Water Conflicts & Cooperation**

The LAS has sometimes served as a regulator by shaping regional principles about and providing guidelines for transboundary river water management, often through public statements to assert Arab river water rights and internationally criticize non-Arab states, particularly Israel and Turkey, for their use of river waters at the expense of Arab countries. As depicted above in Table 10, the LAS has played the role of a regulator in 33 interactions or roughly two-thirds of all of its interactions in cross-border river disputes and acts of collaboration. The most common event intensity for interstate incidents between primary actors and targets in which the LAS was involved is -2, which on the BAR Event Intensity Scale, represents strong verbal expressions displaying hostility; thus, this indicator reveals that the LAS is most often involved in serving as a regulator

for conflicts instead of cooperative acts. Qualitative analysis of the 33 events helps to add greater context to this finding: the LAS has most often acted to influence principles of transboundary river water basin management by strongly condemning specific actions or policies, such as making frequent public complaints about Israel's construction of the NWC in the 1950s and 1960s to divert the Jordan Rivers waters; Israel's use of Jordan River waters at the expense of Palestine; and Turkey's increasing usage of the Tigris-Euphrates-Shatt al-Arab River Basin waters in the 1990s as part of its Southern Anatolia Project or Guneydogu Anadolu Projesi (GAP).

The greatest negative event intensity reached in terms of the LAS serving as a regulator is -3 in the 1950s and 1960s, when it supported the planning and construction of the JDA project by Syria, Lebanon, and Jordan in retaliation for Israel's NWC. These events prompted me to do more qualitative research to see what I could find in terms of specifics of the role as regulator that the LAS played on this issue. I discovered that although the public, formal resolution issued at the close of a six-day LAS conference January 30-February 4, 1961 was ambiguous—stating only that the LAS ministers had decided on a course of action for Jordan River—it was leaked to the press that the LAS approved a proposal to use armed force to keep Israel from diverting the river waters. (Arab League 1961) Likewise, at a subsequent LAS meeting in April 1965, Arab countries re-affirmed these decisions “including a unified Arab command [the UAC] . . . to press military unity, and to carry on diversion projects on tributaries of the Jordan River.” (Arab League 1965, 1058) Indeed, the LAS sought to emphasize as a regulator that construction of water projects in the region that harm Arab access to transboundary river waters is unacceptable and that Arab action would be taken; the LAS even condoned violence and an escalation of tensions.

However, the LAS has also sometimes been a positive force for encouraging Arab and non-Arab riparian partners to work towards peaceful settlements of river water

disputes, asserting the principles that Arab and non-Arab countries should work out solutions to more equitably share river waters according to international guidelines. The highest intensity exhibited by events in which the LAS served as a regulator is 2, including for inter-Arab and Arab-non-Arab river water events, which on the BAR intensity scale represents official verbal support of goals, values, or regime. Qualitative analysis of the data indicates that the main events in which the LAS served as a positive regulator was in 1996, when it issued a resolution calling on Turkey, Syria, and Iraq to peacefully manage their shared interests, including over the management of the Tigris-Euphrates-Shatt al-Arab River Basin; and in 2010, when the LAS publicly called for the Nile Basin countries to demonstrate mutual understanding for countries' concerns over sharing Nile river waters. These events indicate that the LAS does sometimes encourage regional cooperation as a regulator in transboundary river water issues by publicly reaffirming friendship between riparian partners and emphasizing international principles of river water sharing.

With regards to disputes between Arab riparian partners, qualitative analysis of the data illustrates that the LAS has asserted the principle that Arab countries should work out their differences on sharing international river waters peacefully, serving as a mediator between Syria and Iraq to help these countries resume diplomatic relations and come to an agreement about their usage of the Tigris-Euphrates-Shatt al-Arab River Basin in the 1990s. One event datum indicates that in January 1996, the LAS served as a mediator between Syria and Iraq, which had ceased diplomatic relations at the beginning of the 1980-1988 Iran-Iraq war, using its good offices to help persuade the countries to overcome their differences. Another event datum reveals that the countries resumed diplomatic relations a few months later, in May 1996. These event data prompted me to do more qualitative research, searching through additional press and organizational journals to see what I could ascertain on the LAS's roles in this regard. I found that the

following month, the LAS held a week of meetings regarding Syrian and Iraqi concerns about Turkey's construction of the GAP—a Turkish regional development program including a large irrigation system and dozens of dams and hydroelectric plants planned for completion in 2023—and its corresponding, increasing usage of the Tigris-Euphrates-Shatt al-Arab River waters. (Peace Monitor 1996)

The LAS has played the role of a regulator most frequently in issues surrounding water quantity, and second-most often on issues regarding infrastructure or development projects. Qualitative analysis of the event data indicates that the two issues are related in that the LAS most often made public comments or took action to discourage the construction of water projects by non-Arab countries that Arab countries assessed would decrease the volume of international river waters flowing through Arab countries. For example, the aforementioned events discouraging the building of the NWC and GAP.

#### **6.4.2 The LAS as a Forum for Transboundary River Water Conflicts & Cooperation**

Of the three roles in question, the LAS has most often served as a forum; in this capacity, the LAS has been involved in the widest range of event intensities for conflicts and collaborative acts, but it has largely served as an interstate space for LAS members to raise disputes concerning transboundary river water issues. The LAS provides opportunities for inter-governmental discussions and transactions: facilitating the exchange of expertise, coordinating research, offering technical advisory services, and serving as an advocate for its members' collective decisions to other regional and international organizations. As outlined in Table 10, the LAS has served in the capacity of a forum in 44 of the 56 events, or roughly 80 percent of all of its interactions. The most common event intensity between primary actors and targets in which the LAS is involved is -2—the same as in its role as a regulator—which on the BAR Event Intensity Scale represents strong verbal expressions displaying hostility, indicating that the LAS is most often involved in serving as a forum for conflicts instead of cooperative acts.

Qualitative analysis of the 44 events helps to add greater context to this finding about the use of the LAS as a platform for discussion and the presentation of Arab concerns and positions on river water disagreements. Arab countries use the political space in the auspices of the LAS to voice frustrations about upstream countries' water usage and pollution, complain about the construction of river infrastructure projects that will affect them, and to discuss possible collective Arab responses to such complaints. In the 1950s and 1960s, the LAS provided a forum for Arab countries to decide if and how they wanted to respond to the construction of Israel's NWC; at LAS meetings, Arab leaders deliberated about whether the LAS had a role to play in this dispute, and decided that it did, leading to the creation of the JDA and the UAC. It also provided a place for countries to announce their approaches to the Israel's NWC; at an LAS meeting in May 1967—just a few weeks before the start of the Six-Day War—the PLO announced that they had planted mines along the Jordan River Basin within Israeli territory to thwart Israel's construction; this terrorist act is the most extreme level of conflict in the entire set of LAS events, -5. It is unclear from this event datum and the original press source whether the LAS was actually involved in the planning of this attack, but the PLO used the LAS as a place to at least inform other LAS members about its action and contribute to the group's broader approach to countering Israel's construction of the NWC. Another usage of the LAS as a forum comes from its opportunities for public announcements to gain attention on the sidelines and give a semblance of Arab cohesion about a stance on a transboundary river water issues. For example, in 2010, Sudan's LAS representatives announced to press their dissatisfaction over the Nile Basin Cooperative Framework Agreement—a treaty for sharing Nile River waters that downstream Sudan and Egypt disagree with—and called the treaty illegitimate without Sudan and Egypt's approval. While many of these conflicts raised under the auspices of the LAS in its role as a forum are between Arab and non-Arab countries, occasionally Arab countries bring inter-Arab

conflicts to the LAS so that they can be discussed. For instance, in 2010, Iraq raised concerns with the LAS that both Turkey and Syria were using the waters of the Tigris Rivers at Iraq's expense. Thus, while shared Arab identities are important, a country's material holdings, or in this case river water, is also crucial, giving weight to realist IR theories, while such moves also support NI theories as Arab countries look to an international organization to help them resolve such conflicts.

Interestingly, qualitative analysis of the event data also indicates that the LAS has not only served as a forum for Arab countries, but has also provided a space for Turkey to have its position on transboundary river water management heard and to lobby the collective Arab policy stance; in this capacity as a forum, the LAS has also sometimes used its good offices to serve as a mediator between Arab and non-Arab countries. LAS leaders have occasionally met with Turkish leaders to discuss Turkey's perspective on the use of the Tigris-Euphrates-Shatt al-Arab River waters and Arab concerns about the GAP. In 1996, Turkish officials met with LAS officials three times and expressed their desire to peacefully resolve the river water disputes; they told LAS officials that they had a plan for shared water management but that Iraq and Syria had refused to negotiate with them. In response, the LAS Secretary General helped to organize a meeting of Turkish, Iraqi, and Syrian foreign ministers that same year to discuss transboundary river water management issues. At the same time, Syria had been trying to influence the LAS to publicly criticize Turkey and demand that other Arab countries' distance themselves from the non-Arab country until it resolved its river water conflict and other disagreements with Syria. I did more qualitative research in press and scholarly journals to add context as to how Turkey interacted with the LAS as an interlocutor in this river water conflict. I found that in advance of the June 1996 Arab Summit, Turkey lobbied the LAS to avoid issuing a resolution criticizing Turkey's management of the Tigris-Euphrates-Shatt al-Arab River basin. Turkey was successful in its effort and the LAS helped to de-escalate

the conflict: the LAS issued a public statement instead supporting the commencement of a technical study about the usage of the rivers waters and agreed to a peaceful resolution calling on Turkey, Syria, and Iraq to resume their traditional relations, even though Syria and Iraq initially wanted to escalate the conflict under the LAS's auspices. Thus, the resolution was a shift in Arab-Turkish hydropolitical relations in that “Arab countries, sympathetic to Syria on its water dispute with Turkey, have traditionally expressed their support to Damascus on this issue in the Arab League meetings.” (Turkey Says Arab Summit Resolutions “Balanced and Reasonable” 1996) CWSAWS President Chahra Ksia was able to provide me with more context about the LAS's dual role of regulator-forum in this conflict, which I will discuss more in the next section. More recently, in 2009 the LAS Secretary General again brought together the countries' foreign ministers for a meeting during which Turkey agreed to increase the water flow downstream of the Euphrates River for the following month.

In its role as a forum, the LAS has had most of its positive interactions through the provision of technical assistance to member countries; by sharing and bringing in outside expertise; and by commissioning studies for water infrastructure projects, irrigation techniques, and afforestation of river basins. On the BAR event intensity scale, most of these events rank at 3, representing non-strategic cultural or scientific agreement or support, or 4—the highest event intensity of all the LAS events—for non-military, economic, technological, or industrial agreements. For example, leaders of LAS financial institutions, along with European and international economic institutions, attended the 8th summit of the Organisation pour La Mise en Valeur du fleuve Senegal (OMVS), or the Senegal River Organization, in 1985. At this meeting the parties established agreements for planning to finish the construction of dams in the Senegal River Basin and support environmental protection and afforestation of the basin. This event indicates that LAS institutions not only work with each other to provide technical expertise, but also with

local river basin organizations and other regional and international organizations.

Qualitative analysis of the event data also show that the KFAED in particular has been heavily involved in providing technical assistance. For instance, in 1990, the KFAED agreed to support a project to enhance irrigation technologies to facilitate water delivery from the Nile River to the Sinai Peninsula transversing under the Suez Canal. Similarly, in 1998, the KFAED commissioned a study to enhance irrigation, facilitate afforestation, and provide drinking water from the Tigris-Euphrates-Shatt al-Arab to arid areas; this study was commissioned to Arab and Western researchers, incorporating local knowledge while bringing in expertise from outside of the region. The KFAED's technical assistance often takes the form of “the preparation of feasibility studies, expert services for assisting in the planning and execution of development projects and programs, and training, especially for strengthening the capacity of staff assigned for the management of projects and operations.” (Highlights of Kuwait Fund Operations 2013, 13) Much of the technical assistance provided by the LAS and its affiliate institutions comes as part of an economic assistance project, as to be discussed in the next section.

Most of the event issue areas that involved the LAS as a forum for transboundary river water issues centered around water quantity, and secondly, development and infrastructure projects, indicating that these are the topics of most interest to or controversy among LAS members and the issues over which they seek to employ the LAS as a forum. Qualitative analysis of the events reveals that—similar to the issues involved in the LAS's role as a regulator—many of these events are linked and deal with Arab concerns about a decrease in water quantity to member countries because non-Arab riparian partners construction of water projects. However, as noted earlier, because this category also includes technical assistance there were also several events linked to the provision of development or infrastructure through which the LAS or its financial affiliates helped to provide expertise as part of a larger economic assistance package.

Interviewees' responses helped to add context to the LAS's role as a forum for transboundary river issues, elucidating how the LAS responded to increasing water scarcity concerns in the Tigris-Euphrates-Shatt al-Arab River Basin due to the construction of a Turkish dam; how the LAS is used to publicly project Arab positions and encourage watershed cooperation; and the types of technical projects that the LAS works on with other IGOs to strengthen regional expertise on shared river water issues. I also did some additional historical research to give greater context to some of the examples that the interviewees mentioned.

As mentioned in the previous section, in an interview with CWSAWS President Chara Ksia, she explained that Syria and Iraq brought their concerns to the LAS about the decrease in water flow to their territories in the Tigris-Euphrates-Shatt al-Arab River Basin, using the organization as a regulator-forum and asking it to represent the position of Arab downstream countries and mediate with Turkey. Turkey increased its usage of the river water to fill the Ataturk Dam in 1989 as part of the GAP. On behalf of Syria and Iraq's request, the LAS Secretary General visited Turkey and asked why and how Turkey was reducing the river's flow; Syria and Iraq experienced two months of a significant reduction in water flow falling to about 1/3 of its normal volume. The LAS's Political Committee passed a resolution asking Turkey to restore the water flow, but Turkey did not respond. (Ksia 2014) According to outside scholarly sources, Turkey had taken advantage of Iraq's distraction by the 1980-1988 Iran-Iraq War and subsequent reconstruction efforts to start its construction of GAP dams. Iraq started to complain following the end of the war while broader Turkish-Iraqi relations deteriorated and Syria and Iraq came together to jointly criticize Turkey's management of the shared river basin. (Carkoglu and Eder 2001) As noted earlier, according to qualitative analysis of the event data, the LAS played a role in helping these countries to coordinate their positions on Turkey's water usage. Notably, the LAS and Iraq were successful in lobbying the World

Bank to cease funding the construction of the Ataturk Dam. (Dohrmann and Hatem 2014)

Thus, in its approach to the Ataturk Dam, the LAS acted as both a forum and regulator: a forum to discuss Arab concerns and coordinate a joint Arab approach and a regulator in terms of influencing the international community not to financially back projects that have a harmful impact on downstream riparian partners. When Turkey began new construction on another GAP project, the Birecik Dam, in 1992, Syria complained to the LAS and they together tried to encourage foreign firms who were employed in building the dam to cease their engagement in the project, but these Arab efforts were unsuccessful. (Carkoglu and Eder 2001) Clearly, the LAS sought to take a similar approach to that of the Ataturk Dam as a forum-regulator in the similar conflict over the Birecik Dam, but were unable to similarly influence international principles on dam construction and acknowledgement that is often detrimental to downstream countries. Turkey has since increased the water flow of the Euphrates-Tigris-Shatt al-Arab River Basin downstream, but it remains less than before its construction of the GAP dams and there has not yet been a long-term multi-lateral agreement created to help resolve conflicts, making it likely that conflict and cooperation in the basin will remain ad hoc and suggesting that the LAS could play a role in related future interstate interactions.

Another interviewee and US diplomat, Matthew Wills, said that during his posting at the US Embassy in Cairo from 2012-13, the LAS acted as a forum by publicly making general statements calling for cooperation on shared river water sources and emphasized the Harmon Doctrine principle of doing no harm to downstream countries' streamflow. He said that the LAS was involved in giving technical assistance for agriculture, including the provision of aid to improve irrigation methods with water from international river basins. (Wills 2016)

Interviewees also confirmed the importance of the LAS in several recent initiatives to partner with other IGOs and provide enhanced technical assistance, focusing

on the development of methods to track water availability and quality in the region; however, political turmoil in the Arab world since 2010 has somewhat slowed some joint initiatives to improve technical capabilities on water management. Pasquale Steduto, the UN Food and Agriculture Organization's (FAO) Deputy Regional Representative for Near East and North Africa said that the LAS plays an important coordination role on the Water Scarcity Initiative (WSI) and helps the FAO to consult with Arab government leaders. The WSI was jointly initiated with the FAO and LAS members. (Steduto 2014) The WSI seeks to provide LAS members and other governments in the region with cost-benefit analysis of different approaches to inform their water management strategies and also to “advise governments and the private sector on the adoption of modern technologies and institutional solutions to increase the efficiency and productivity of water use in agriculture.” (Water Scarcity Initiative 2016)

Erian also noted that, if requested, the LAS provides diplomatic training to its members to improve their negotiating capabilities on transboundary river water issues. (Erian 2014) Erian said that transboundary river water issues have been discussed in the LAS, including the disputes over the Tigris-Euphrates-Shatt al-Arab River Basin and Ethiopia’s construction of the GERD, also confirming its use as a forum for transboundary river water issues. Notably, the LAS was engaged in talks with Syria and Jordan about the decrease in water quality in the Jordan River Basin, possibly because of Syrian affluents. (Erian 2014)

Similarly, Khoday said that the UN sometimes provides capacity-building assistance in concert with LAS-affiliated organizations, to include helping governments to establish or refine their national water management policies, including the Nile River Basin countries' negotiations and efforts to develop a joint management plan. He noted, however, that since the Arab Spring started in December 2010, that cooperation between the UN and LAS has declined as Arab countries have become more focused on managing

their own internal political developments and as a result, there had not been strong deliverables on transboundary river water management or other natural resource topics under the auspices of the LAS-UN in recent years. (Khoday 2016) On the other hand, Alfonse said that it was hard to tell if the Arab Spring had affected the operations of the LAS, including its activities concerning shared river waters, because he said its modus operandi was to move at a very slow pace anyway. (Alfonse 2016) US diplomats Todd Watkins and John Crocker stated that they knew Nile River water issues had been discussed in recent years within the LAS, illustrating its capability as a forum and tracking with qualitative analysis of the event data.

At the AWF, representatives of the AWC and CEDARE spoke of their joint, nascent efforts to establish State of Water (SOW) reports for the Arab region, harmonizing indicators between countries about the status of water access and availability in Arab countries, including transboundary river waters, to enable better analysis at subregional and regional levels and provide better information to donors. SOWs will help to track Arab countries' progress towards their self-established water goals, the goals of the African continent, and efforts to achieve water-related Millennium Development Goals. The KFAED is providing technical assistance by helping the AWC and CEDARE develop a capacity-building action plan for this initiative.

In an AWF session on Climate Change Adaptation and Risk Resilience, AWC Secretary General Safwat Abd El Dayem said that despite efforts in recent years, human resources are not be used effectively in the region and that there is a lack of interest and commitment on the part of stakeholders in knowledge-sharing tools. (2014) This stresses that there is still much work to be done under the LAS's auspices in enhancing expertise and the exchange of technical assistance, and that a big hurdle that must be overcome is a lack of political will among its member states.

### **6.4.3 The LAS as Pooler-Provider of Resources in Transboundary River Water Conflict & Cooperation**

The LAS has least often served in the role of a pooler-prover of financial, administrative, and security resources to address disputes and facilitate cooperation; most of these events are highly positive and are among LAS members only, illustrating that such interactions involving the LAS are usually collaborative in nature and contribute to the strengthening of Arab ties. The LAS and its affiliated organizations have served as a pooler-provider of resources for only 13 of the 56 total events, or roughly one-quarter of all events in which the LAS has been a party, as shown in Table 10. The average event intensity of these events is 2—representing official verbal support of goals, values, or regime on the BAR event intensity scale—while the most common event intensity for these interactions is 4—signifying non-military economic, technological, or industrial agreements—both of which are significantly higher transactions as a group of data compared to the data sets for the LAS playing roles as a regulator and a forum. The relatively high levels of cooperation can be attributed to several reasons: the high ranking on the BAR scale of economic assistance packages relating to river water infrastructure projects; most grants of economic assistance are given solely to Arab countries, making it a neutral interaction for the majority of Arab and non-Arab relationships; and just a few interactions with non-Arab countries were negative. Correspondingly, there is a wide range of event intensities associated with the LAS in the role, from -3 to 4, but this scale of event intensity is not as varied as its role as a forum.

The LAS as a pooler-provider of resources has largely been involved in positive interactions, the bulk of which have been amongst Arab countries, and have largely centered around financial support for the construction or expansion of dams, irrigation or drinking water projects, water conduits, and pumping stations; the LAS has also publicly called on member states to unilaterally provide additional aid on shared areas of interest related to river waters. For instance, the AFSED provided support and an undisclosed

amount of funding to expand the Roseires Dam in the Nile River Basin of Sudan in 2010; it also provided aid to Sudan in 2013 when the Nile River flooded and vocally encouraged LAS member states to supply additional assistance. Separately, the most notable provision of funding to both non-Arab and Arab countries was LAS financial institution support to the OMVS's construction of dams in the Senegal River Basin in the 1980s, which all riparian countries agreed to, representing only positive riparian interactions. This finding prompted me again to seek out additional information on this topic in international press and scholarly journals. The three countries belonging to the Senegal River watershed, Senegal, Mali, and Mauritania, were driven to work together on these water development projects because of successive years of drought in the river basin during the 1970s and saltwater intrusion into a long stretch of the river. Because all of the countries were in agreement on the construction of the dams, it made it easier for the Arab financial organizations and other IGOs to help support its financing. In fact, “crucial support came from Arab nations and development organizations, which, prompted by brimming oil revenues and a sense of Islamic solidarity, agreed to provide more than 40% of the \$700 million required” for the projects. (Walsh 1986, 1082) Interestingly, the scarcity of river water and related deterioration of the quality of water prompted Arab and non-Arab countries to work together to address the problem, again underscoring that a shortfall of river waters can drive cooperation in addition to conflict. Likewise, the interest in Arab financial organizations in giving funds to support the project because of a shared identity also bolsters social constructivist claims that identity commonalities can influence foreign policy approaches.

Of the LAS's affiliates, however, the KFAED is again the most frequent donor of economic assistance for river basin-related projects. For example, the KFAED provided the bulk of funding for an irrigation project in the Nile River Basin and in 1993 loaned Syria \$19 million to construct a hydroelectric dam in the Tigris-Euphrates-Shatt al-Arab

River Basin. To get a better sense of the KFAED's funding of such projects, I did additional research to add context to this analysis. I discovered that from the the KFAED's founding in 1962 to 2013—the most-recent year for which data is available—it has supplied \$9.4 billion in grants to Arab countries for development projects, including \$200 million worth of technical assistance, with about 10 percent of all of its aid going to the water and sanitation sector. (Highlights of Kuwait Fund Operations 2013)

Since often technical assistance is granted in conjunction with financial assistance, it is not surprising that the most common issue areas for the LAS as a pooler-provider of resources include events relating to infrastructure or development projects and technical cooperation or assistance. As mentioned above, most of the events for the LAS serving in the capacity as the pooler-provider of assistance have been neutral; that is also because all but one of these projects were not opposed by non-Arab riparian partners, with the exception being the construction of the JDA project to be discussed next.

Only three of the events that reflect the LAS's role as a resource pooler-provider are negative for any relationships, and these events were tied to the LAS's threats to take military action and support of the construction of the river water diversion project of the Jordan River in the 1950s and 1960s in response to Israel's construction of the NWC. These events included Egypt asking the LAS to cut Israel's water supply from the Jordan River Basin, and secondly, a warning that Arabs would take united military action against Israel if it continued building the NWC, both of which occurred in 1959. In the third event datum, the LAS in 1960 agreed upon a joint plan to prevent Israel from using water, including the formation of the UAC and the JDA discussed earlier. Notably, these are the only event data that are indicative of conflict that the LAS has been engaged in as a supplier of aid and resources.

Erian and Ksia explained in their interviews that the LAS secretariat provides coordination for funding of transboundary river water projects, lending support to the findings of the LAS in its role as a pooler-provider. (Erian 2014)

### **6.5 The LAS is Most Often Involved in Transactions Concerning Water Scarcity**

Quantitative analysis reveals that water quantity is the most frequent issue in the interstate water events that involve the LAS. As illustrated below in Table 11, about 63 percent of all international transactions on transboundary river waters that the LAS has been a party to are focused on water quantity. Qualitative analysis of the events indicates that Arab downstream states often raise concerns to the LAS about the actual, perceived, or planned decrease in streamflow, complaining that the decrease in water volume is because of the of an upstream state's change or planned change in usage. Similar to the patterns discussed in terms of the LAS's roles as a regulator and forum, the water quantity issue is often linked to Arab states' concerns about the construction of new infrastructure or development projects within the river basin. This trend again adds support to environmental conflict and water conflict literature that a shortage of river water is likely to increase international interactions.

**Table 11: LAS Involvement in River Water Events By Issue Area**

<b>Issue Area</b>	<b>Number of Events</b>	<b>Percent of Total Events (rounded to nearest integer)</b>
<b>Water Quantity</b>	<b>35</b>	<b>63</b>
Infrastructure/Development	6	11
Joint Management	5	9
Technical Cooperation/Assistance	5	9
Water Quality	2	4
Flood control/relief	1	2
Irrigation	1	2
Territorial issues	1	2

## 6.6 The LAS's Involvement Over Time in International Transboundary River Interactions

To test for hypothesis 5 about the LAS's level of activity in transboundary river water interactions across different time frames, I break down the organization's average annual rate of involvement to have equal time units with which to make comparisons. As a reminder, hypothesis 5 is that the LAS has been engaged in more transboundary river water interactions from 1948-1967—when Arab nationalist sentiments were high and when the political environment was more conducive to Arab consensus—and since 2008, when the LAS created a high-level political decision-making body in recognition of increasing regional water challenges. To calculate the average annual rate of the LAS's involvement in water events,  $r$ , the number of events,  $n$ , during each time frame is divided by the difference in number of years, where  $y_2$  is the most-recent year and  $y_1$  is the earliest year. This calculation is represented by the below Equation 2.

**Equation 2 Annual Rate of LAS Involvement in Water Events**  

$$r = n / (y_2 - y_1)$$

**Table 12: Rate of LAS Involvement in Events During Select Time Periods**

<b>Indicator or Measurement</b>	<b>Number of Events</b>
Annual rate of LAS involvement in Arab river basin events 1948-2008 (rounded to the nearest tenth)	0.8
Annual rate of LAS involvement in Arab river basin events 1948-1967 (rounded to the nearest tenth)	0.4
Annual rate of LAS involvement in Arab river basin events 1968-2008 (rounded to the nearest tenth)	0.9
Annual rate of LAS involvement in Arab river basins 2009-2014 (rounded to the nearest tenth)	2.1
Most common issue areas	Water quantity; Events relating to infrastructure or development projects

As depicted above in Table 12, these calculations reveal that the LAS was party to 8 events over the 19-year time range 1948-1967, or an average of 0.4 events per year,

compared to 35 events over the 40-year time frame 1968-2008, or an average of 0.9 events per year—more than double the rate of activity for the previous time frame. Thus, the first segment of hypothesis 5 is wrong; on average, the LAS was involved in more transboundary river water events from 1968-2008 than from 1948-1967. From 2009-2014, the LAS has been involved in 13 events, or an average of 2.1 events per year—again, more than double the rate of activity compared the previous time frame of 1968-2008. Thus, the second part of hypothesis four is correct, that the LAS has been involved in more interactions since 2009. These findings indicate that the LAS has been involved at an increasing rate of transboundary river water conflicts and cooperation for the comparative time frames under study, and suggest that the organization's involvement of such activities is sometimes independent of the broader political environment within the region, including the rise and fall of Arab nationalist sentiments. The LAS's consistently increasing rate of engagement between the selected time periods suggests that its activity on transboundary river water management is somewhat independent of Arab nationalist sentiments and supports realist IR theories about countries' focus on material holdings, such as river water, and NI theories that countries will look to use the LAS when they can maximize their material benefits through it.

Interviews did not reveal any instances of LAS engagement in transboundary river water international interactions for the years 1945-1948. The lack of quantitative or qualitative data for the LAS's first years could be due to a number of factors. The LAS might not have been very active in its first three years as it was still establishing its organization; several of the LAS's sub-organizations and affiliated institutions took several years to stand up. There might not have been many transboundary river interstate interactions at that time for it to be involved in; many states at that time were focused on dealing with the aftermath of WWII and the start of the Cold War. Or, there might have been a lack of press reporting on the LAS's functions at that time.

If we compare the LAS's level of activity between decades based on quantitative and qualitative analysis, it becomes apparent that the LAS's overall involvement in international river water issues is inconsistent and issue-dependent. As outlined in Table 13, quantitative analysis between equal time periods shows that the LAS has had some decades with little to no publicly-recorded interactions between Arab or non-Arab countries on transboundary river water issues: it was involved in no events from 1948-49, no events in the 1970s, and only one event in the 2000s. Qualitative analysis reveals that nearly all events between the 1950s and 1960s were attributed to LAS and Arab reactions to Israel's construction of the NWC; the peak in LAS activities in the late 1980s and 1990s were largely due to LAS and Arab responses to Turkey's GAP construction; and Ethiopia's undertaking of the GERD starting in the 2010s, combined with the creation of the AWMC and its efforts to form a FCSWRAC, have largely accounted for the spike of activity early this decade. This suggests that Arab countries more frequently tend to employ the LAS's services when a non-Arab upstream country builds a large river project that the downstream country assesses will negatively impact its water flow. Looking at the qualitative event data across time, it becomes apparent that Arab states often seek to use the LAS to voice their complaints about the project and gather support to make stronger regional public statements deriding such projects; this also helps to explain why the LAS's most common role in international river events is a forum. This finding most directly supports the realist-inspired water conflict argument that downstream countries view upstream water use as zero-sum game and that an upstream country uses its geopolitical position to maximize its use of river waters. (Frey and Naff 1985; Lowi 1995; Ohlsson 1995; Elhance 1999, Ohlsson 1999; Zeitoun and Warner 2006) It also lends credence to realist IR views that states will seek to use international institutions as an opportunistic and temporary tool to achieve objectives that are otherwise hard to accomplish on their own.

**Table 13: LAS Involvement in Events By Decade**

<b>Years</b>	<b>Number of Events</b>
1948-49	0
1950-59	4
1960-69	4
1970-79	0
1980-89	3
1990-99	32
2000-09	1
2010-14	12

### **6.7 The LAS's Involvement in International River Water Events By River Basin**

To test for hypothesis 6, which conjectures that the LAS has had more interactions with Israel compared to any other non-Arab country, I separate events by river basin, which also allows me to see the countries the LAS is interacting with and the frequency of these interactions. As a reminder, hypothesis 6 was formulated based on the finding mentioned at the beginning of the dissertation that for the past 50 years, all but seven of the 37 violent interactions between two states over river water have been between Israel and one of its Arab neighbors. (Wolf 1998; Wolf et al. 2006) It is also formulated based on the conclusion of chapter 4 that Arab countries' opposition has often been a uniting factor for collective action, even in the face of other competing priorities. Thus, based on this approach, I would anticipate finding that the Jordan River Basin has the most events that include LAS involvement and most of those interactions would be in opposition to Israel's use of its waters.

As illustrated below in Table 14, each river basin has at least one event involving the LAS. This is largely because of the event datum from 2010 announcing the meeting of the AWMC and its plans to create the FCSWRAC to establish principles for water management pertaining to all Arab river basins. Prior to 2010, three of the ten Arab river basins did not have any event data in which the LAS was an actor, underscoring that its

efforts to create standards for river basin management applicable to all of the Arab world in recent years is the first time it has been involved in such river hydro-politics in some parts of the region. This also highlights that its involvement has been inconsistent across basins and as discussed earlier, is often driven by member states' requests that the LAS play a role in transboundary river water interactions.

So, where has the LAS been most active and with which non-Arab country has it had the most engagement? Quantitative analysis reveals that the Jordan River Basin has only the second-highest number of events that include the LAS. But, as anticipated, qualitative analysis of the events shows that each one of these was making a statement or taking action against Israel and the majority of these interactions took place in the 1950s and the 1960s in response to the NWC. Thus, when the LAS has been involved in the Jordan River Basin, it has been consistently involved in disagreements with the non-Arab country. The result, again, could be contributed to the aforementioned discovery that the bulk of interstate interactions concerning Arab river basins occurs bilaterally; although the Jordan River Basin has experienced the most international interactions in the world, many of these could be between states.

In fact, the LAS by far has been the most involved in the Tigris-Euphrates-Shatt al-Arab River Basin; of the 31 events in the river basin, all but five of these interactions have been concerning or directly engaging with the non-Arab state of Turkey. The majority of these interactions took place during the 1990s in response to the construction of dams associated with the GAP. Even though Iran, another non-Arab country, also shares this Arab river basin, it has no recorded interactions involving the LAS and this river basin. Ksia, Erian, and UN Team Leader for the Arab Region, Kishan Khoday, noted that the LAS had been involved in talks between Iraq, Syria, and Turkey over the management of the Tigris-Euphrates-Shatt al-Arab River Basin and that this was a major focus for the LAS in the transboundary river water management issue area. (Ksia 2014,

Erian 2014, Khoday 2016) The additional context that Ksia had to offer was discussed in the section on the LAS's role as a forum. Thus, hypothesis 6 was incorrect, and the LAS has had the most interactions with Turkey compared to any other non-Arab country.

**Table 14: LAS Involvement in Events By Basin**

<b>River Basin</b>	<b>Number of Events</b>
Asi/Orontes	3
Congo/Zaire	1
Jordan	12
Lake Chad	2
Medjerda	1
Niger	2
An Nahr El Kabir	1
Nile	9
Senegal	2
Tigris-Euphrates-Shatt al-Arab	31

## **6.8 Summary: The LAS Contributes To Conflict & Cooperation**

In sum, the Arab world's major river basins have some of the most frequent, intense interstate interactions in the world, making it a key place for CAR practitioners, policymakers, and IGOs to try to help alleviate tensions and encourage cooperation over river water sources projected to become increasingly scarce. The LAS is involved occasionally in such exchanges and has contributed to both international river cooperation and disputes, making it an important stakeholder and potential venue for CAR practitioners, policymakers, donors, and other IGOs to consider engaging with to help de-escalate disputes and achieve positive outcomes for interstate relations and for the development of regional watersheds. *The LAS is most often involved in conflictive events as member states tend to use it to advance their positions in the region and international community to discourage upstream, non-Arab riparian countries from undertaking large development projects, such as the NWC, GAP, and GERD, that Arabs assess will negatively impact their river water flow.* However, it is notable that the LAS

has also helped to mend relations between Arab countries and has served as a mediator between Arab and non-Arab countries on river water issues; it also helps to improve technical expertise in the region and coordinate with financial institutions and other IGOs to advance the management of shared river water sources.

*The findings also help to advance the academic fields of IR and environmental and water conflict by showing that a combination of the theories have applied in the Arab world at different times and in different situations. The results, however, lend the most support to the recent body of literature in water conflict that argues that high levels of water scarcity increase instances of international conflict and cooperation. The discoveries also allow for a refinement of the theoretical framework of hydro-hegemony in the context of the Arab world.* With regards to IR theories, the results show that different facets of the discussed theories apply sometimes, as summarized in the following paragraphs.

Some realist claims are supported by some of the results. If we consider water supply a material holding, then material holdings do sometimes drive Arab states' foreign policy approaches and thus, when they seek to give the LAS the authority to act on their behalf. Arab countries sometimes argue over river water with upstream countries, even Arab ones, when they assess that a change in the upstream country's management of the river water source will impact their supply. This was apparent in the qualitative analysis of the event data when Iraq voiced displeasure to upstream Syria that Syria's usage of the river waters was decreasing Iraq's supply. The finding that the LAS is involved in interstate interactions on an infrequent, ad hoc basis also support realist claims that states seek to use IGOs as tools occasionally when it helps to achieve their objectives, but such cooperation tends to be temporary.

Likewise, NI theories also sometimes apply to the LAS's involvement in transboundary river water interactions. The qualitative analysis of event data shows that

the LAS's engagement in a number of instances did make a difference: it coordinated the construction of the JDA project and helped to present a united front against Israel's NWC. It was also an important intermediary for Syria, Iraq, and Turkey in the 1990s regarding the GAP, helping to bring Iraq and Syria closer together initially, and eventually de-escalating tensions with Turkey following the issuances of a peaceful resolution at the conclusion of an Arab summit. The LAS also helps to coordinate and provide technical and financial assistance to help achieve development outcomes that might not otherwise be possible, or at least would be more difficult to achieve. Such efforts are and will continue to be key for the region to cope with increasing water scarcity.

Moreover, in line with social constructivist claims, identity sometimes does influence transboundary river water interactions, but Arab nationalist sentiments have not mattered as much as concerns about water supply in terms of LAS involvement. Shared identity is the premise of LAS member cooperation, regardless of the reasoning or objectives, but Arab states choose to acknowledge or call on that shared identity when they assess it is to their advantage; at other times they may downplay it when they assess it does not benefit them. For instance, Syria had downplayed its Arab identity during the 1980s and the Iran-Iraq War in support of Iran, instead emphasizing its ruling administration's Shi'a majority; however, when the war ended and Turkey announced the construction of the GAP, Syria resumed its relationship with Iraq with the assistance of the LAS to unite against the newest, most immediate threat of a decrease in river water. This again demonstrates that nationalist sentiments ebb and flow and are influenced by the international political environment; identities can be emphasized by ruling officials to take advantage of opportunities and garner support from those with which they share identities with to respond to new international challenges. As the analysis between different time frames showed, the LAS has been involved at a higher rate sometimes when Arab nationalist sentiments were low, underscoring that shared identities are a

consideration but not often the key factor in LAS involvement in international river water transactions. Arab countries sometimes seek to play up their collective identities at times to curry favor with other states, using the shared identity as a basis for providing technical or economic expertise to emphasize friendly relations and gain international influence. The KFAED's extensive work in the aid arena in predominately Arab countries helps the state of Kuwait and the LAS to burnish their positive interactions in the region.

With regards to environmental conflict literature, the findings also support that environmental conflicts tend to arise over competition of a scarce natural resource and contribute to broader conflicts. Certainly, border skirmishes over the Jordan River water projects contributed to the outbreak of the Six-Day War in 1967, but other important factors also played a role. Likewise, concerns about the possibility of a people suffering structural scarcity because of a loss of a finite resource like river water sometimes shapes interstate interactions. For example, upstream Syria helped to construct the JDA project, even though it was being attacked while doing so, and even though it had nothing material to gain as an upstream country. It did so to try to prevent downstream Arab Jordan from seeing a decrease in its water supply which could harm the economic development of its people.

In line with water conflict literature, the results repeatedly confirmed that the scarcity of river water is the main factor prompting most LAS interactions in the region and that upstream-downstream country dynamics are important. Quantitative analysis of the data showed that river water quantity was the most frequent, primary issue of events in which the LAS has been involved. Qualitative analysis of the data also revealed that geopolitical considerations played a role: upstream states, which were often non-Arab, were in disagreement with downstream non-Arab states about their rights to construct river development projects that could effect the streamflow. As water conflict literature argues, this rise in tensions over river water tends to occur more often if there are other

irritants in the interstate relationship. It was true in the longtime antagonistic relationship between Israel and its Arab neighbors during the peak of activities in the LAS in the 1950s and 1960s, and between Syria and Turkey in the 1990s as they simultaneously had disputes over other issues such as Kurdish separatists and terrorist attacks. As explained earlier, Arab states have sought to use the LAS to increase their bargaining power and garner public support for their policy stance to try to dissuade non-Arab upstream countries from building river development projects. Syria and the LAS were successful in persuading the World Bank in the 1990s to cut its funding for the GAP, but failed in convincing other international investors to cease their funding of the dams. In conclusion, the main finding is that the LAS has been involved more frequently in conflicts, largely because Arab states seek to use the RO to gain international clout to increase the pressure on non-Arab upstream states to stop the construction of any river projects which could negatively impact their river water supply.

The final overall conclusion of the research—that downstream Arab states tend to use the LAS to voice concerns about a decrease in river water flow because of the construction of a large-scale, upstream non-Arab country's river development project—enables a refinement of the theoretical framework of hydro-hegemony. It lends support to the finding of Salman (2013), that institutions can help to redefine who the hydro-hegemon is by combining otherwise weak states together to challenge the original hydro-hegemon. It also lends support to the idea forwarded by Zeitoun and Warner (2006) that hydro-hegemons tend to engage in low-intensity forms of coercion to achieve the behavior they want from other riparian partners. Largely, there are few high-intensity interactions over river water resources including when the LAS is involved. However, because institutions change power dynamics and can allow weaker upstream states to flout the power of individual riparian partners, as evidenced by the NBI and the GERD,

this finding challenges Zeitoun and Warner's conjecture that the geographic position on the river is not as important as power asymmetries. Essentially, ROs can supplant individual riparian partners to become the new hydro-hegemon.

## 7. CONCLUSION

The Arab world is a region plagued with conflict and instability; however, it is also a region that exhibits significant degrees of international collaboration, peacemaking efforts, pre-eminent water technologies, large river water development projects, and the potential for much more cooperation in water and other sectors. As noted numerous times in this study, freshwater sources are projected to become significantly more scarce in the Arab world in coming years; this development can worsen conflicts in one of the most volatile regions of the world or—with the help of effective, inclusive, and flexible institutions—can be used as an opportunity to further enhance interstate collaboration and might even serve as confidence-building measures to help address broader regional conflicts. There is a high-level of interest among CAR researchers and practitioners, IGOs, NGOs, governments, and the private sector regarding how to work with existing institutions in the region, especially given the low-level of institutionalism in the Middle East, or how to support the creation of new organizations to encourage peaceful interactions over transboundary river waters. *This final chapter reviews the key questions and discoveries presented in this work; explains a key implication about the findings: that donors and the private sector should be cautious about supporting the construction of river water infrastructure projects opposed by downstream states; offers recommendations about how to better facilitate information exchange and institutional knowledge to promote inclusive, sustainable, and peaceful utilization of shared river water sources in Arab river basins; discusses a key limitation and consideration for*

*future research should more information become available; examines lessons from the management of other international river basin regimes, IGOs, and ROs that might apply in the Arab context; and explores implications of the study that might have applications to other river basins and transboundary natural resource management (TBNRM) issues.*

## **7.1 Summary of Research Questions and Findings**

This research set out to answer questions about why Arab countries that share the same river basins have not had the level or frequency of violent interactions with each other as they have had with Israel and to explain the LAS's engagement and roles it has played in transboundary river water events. This study explores the importance of identity in river water conflict and cooperation in the region and enhances the understanding of how and when an identity-based organization is utilized by states. It helps to elucidate the modus operandi of the LAS and enhances our understanding of when Arab states choose to keep their foreign policies bilateral versus engaged with an IGO like the LAS.

The research demonstrates that common Arab identities matter as the initial premise for engaging with the LAS and seeking support from other Arab countries for an international hydropolitical stance, but Arab states are likely to only appeal to the LAS and its Arab neighbors for assistance when it suits their interests and they feel that they need help outside their usual tendency to keep such interactions bilateral. With the exception of the initial peak in LAS involvement in transboundary river events in the 1950s and 1960s, the subsequent peaks were related most closely to Turkey's construction of the GAP in the 1980s and 1990s, and Ethiopia's construction of the GERD since 2010, rather than key events in Arab nationalist identity salience. The research demonstrates that when a non-Arab upstream country undertakes a large development project that an Arab state or states are concerned will impact their water flow, they tend to engage the services of the LAS, and the organization then becomes

more involved in the interstate transactions. The LAS can contribute to an escalation in tensions by working to damage the international reputation of the non-Arab state or discourage other entities from funding the project. Arab states seek one or more services from the LAS in the form of its role as a regulator, as it seeks to provide principles to guide interstate interactions; as a forum, where Arab states can discuss or vocally present their concerns about river water management and acquire technical assistance to improve management; and as a pooler-provider, wherein LAS states, technical arms, and financial institutions provide funding, administration, and—in just one case—unified military force to meet Arab objectives in transboundary river water issues.

The LAS is most often employed by its members to make strong statements condemning the actions of upstream non-Arab states. In the most extreme circumstances in the 1950s and 1960s, it coordinated and condoned violence against an Israeli river water project and established an Arab defense force to protect its retaliatory project to divert the river's headwaters; such efforts ceased, however, following the end of the 1967 Six-Day War. On the other hand, in the most positive instances of LAS actions, it has helped to fund Arab and non-Arab major river projects, such as in the Senegal River Basin, when all states agree to such development. Most of its positive interactions tend to be solely among Arab states; in such events, it helps to provide and coordinate technical and economic assistance, along with other financial institutions and IGOs to enhance river water availability, development, and stewardship.

Despite its tendency to be more involved in conflictive events, this study also illustrates that it can play an important role in transboundary river water acts of collaboration. Certainly, in the case of the GAP construction in the 1980s and 1990s, while the LAS was involved in many negative interactions it also proved to be an important mediator and interlocutor for both Arab states and the non-Arab state of Turkey. It initially helped to restore relations between Iraq and Syria so that they could

present a united position on the GAP and provided an international forum for Iraq to pressure Syria to increase its water flow; in these cases, it served as an important venue for conflict resolution and management between Arab states. Notably, it also played a role Arab-non-Arab conflict resolution as well. The LAS's and Turkey's leaders were able to increase communications between the Arab international community and Turkey, Turkey was able to present its side of the conflict to the Arab collective through LAS leaders, and the LAS eventually helped to de-escalate the conflict through a diplomatically-worded resolution, even in spite of Syria's and Iraq's frustrations. Furthermore, as noted, it tends to facilitate inter-Arab cooperation on transboundary river water issues, including the provision of technical and economic assistance, and is an important coordinator for the assistance of other IGO and foreign programs in the Arab world. Thus, the LAS should not be discounted as an important partner for helping to manage and de-escalate international river water conflicts, even though it has a tendency to be involved in more negative interactions.

The LAS's adaptability to and increase in interstate interactions in the wake of the Arab Spring in recent years also highlights that the LAS continues to be an organization uniquely-positioned in the international community to coordinate inter-Arab affairs and serve as a conduit to other governments, NGOs, IGOs, and CAR researchers and practitioners outside of the region. The stress on the environment caused by the movement of large numbers of refugees seeking to escape violence in the region, coupled with ISIS's capture and manipulation of dams to use river waters to its advantage, suggest that inter-Arab coordination on river waters is likely to remain key to regional stability, especially as such climate change, explosive population growth, and economic development will continue to add to such stress. Moreover, the majority of interactions involving the LAS centered around issues of river water shortages, suggesting that if trends continue and as freshwater sources become more scarce, the

LAS is positioned to continue to play an important role in regional interstate hydropolitics. The next section outlines recommendations to help strengthen the LAS's institutional knowledge and capabilities to encourage its involvement in more positive international river events and to facilitate greater collaboration in the region.

## **7.2 A Cautionary Tale About Funding International River Water Projects**

A key implication of the main finding of this dissertation is that donors and the private sector should be wary of funding, investing, or constructing water projects on international rivers that do not have support from downstream countries or about which downstream countries are not informed. Funding opportunities for development are often viewed as unquestionable, positive opportunities for collaboration; however, the focus on achieving a tangible and immediate deliverable to tout to donors or investors sometimes ignores the effects on the larger river basin and the worries of downstream governments about how their portion of the river will be impacted. Donors may sometimes seek to underplay downstream impacts and the potential for disputes because they are eager to participate in projects that can enhance economic development. For example, in the 1990s UN officials touted the construction of eight major Chinese dams as beneficial to the downstream states in the Mekong River Basin without scientific backing or environmental assessments to support such assertions; in fact, the dams harmed the river water flow to downstream states. (Menniken 2007) Certainly, the main conclusion of this dissertation—that the LAS is most often involved in conflictive events as member states tend to use it to advance their positions in the region and international community to discourage upstream, non-Arab riparian countries from undertaking large development projects, such as the NWC, GAP, and GERD, that Arabs assess will negatively impact their river water flow—is evidence of that. The instances of Iraq and Syria's uses of the LAS to approaching the World Bank and private donors to cease the funding and construction of GAP dams are particularly poignant examples of how such oversights can

cause tensions between upstream and downstream countries and in the end, potentially cause the project to fail.

Instead, thorough technical studies about the implications of large river water infrastructure projects, such as dams, should be carried out regarding the river's flow, river basin ecology, and effects on peoples along the river. Such assessments should be carried out in a transparent manner and include all of the countries within a basin; providing technical assistance to enhance governments' understanding of the information can be helpful to foster trust for projects, the donors, and the private sector participants. After the construction of a water project, continuing to monitor river water levels and environmental impacts and providing that information regularly to all riparian countries can help to continue building trust, encourage dialogue about how to handle river or ecological changes among all stakeholders, and build technical capacity among states.

### **7.3 A Key Limitation & Recommendations for Further Research & Action**

First, I explain that it is possible that the LAS plays a more important role in transboundary river water issues than might be able to be accounted for with the information currently available and that the topic of its involvement in this issue area should be re-examined if more details become available. *This limitation underscores that the LAS might be an even more important collaborative and cooperative partner within inter-Arab international river water conflicts that is captured by the data.* Then, I will discuss some recommendations for the LAS to help it and its partners improve their understanding of the organization's role in transboundary river water issues to improve and support its functioning and facilitate more peaceful outcomes.

Because of the lack of primary source information due to the LAS's opacity and lack of institutional knowledge, this study should be considered as only a preliminary study into the LAS's role in transboundary river water conflicts. If the LAS uncovers archives that pertain to the research questions or decides to release additional information

that it does not currently acknowledge, these questions should again be asked and the data re-examined. The LAS probably keeps its role in inter-Arab transboundary river water conflicts the most secretive, because it has no incentive to project member states' opposition to each others' policies and doing so would be the antithesis to the Arab unity that it embodies. As noted earlier by Watkins, the LAS is not viewed as an impartial arbiter, suggesting that—in contrast to this study's results—it is most often sought after for its ability to be a third-party negotiator among Arab parties than can be captured by press and therefore the event data. (Watkins 2014) Moreover, the most sensitive issues for negotiation in the Arab world tend to be communicated only verbally because face-saving measures are culturally important to Arabs' willingness to engage in negotiations. There are also important symbolic and informal components of Arab conflict resolution practices, which leads many Arabs to prefer Arab arbiters, possibly such as the LAS. (Yassine-Hamdan and Pearson 2014) In fact, Yassine-Hamdan and Pearson conduct research on the International Conflict Management Dataset for the years 1945-2000, looking at just over 300 conflicts in civil and international disputes in the Arab world on a host of issues. They find that Arabs tend to prefer regional settlements compared to international ones: if an international dispute was inter-Arab, Arab states approached the LAS to mediate in 52 percent of all conflicts, compared to just 29 percent for the UN. Furthermore, the Yassine-Hamdan and Pearson study finds that of these conflicts mediated by the LAS, 83 percent of them were arbitrated by low-ranking LAS officials, which also might not have met threshold to make a press story. (Yassine-Hamdan and Pearson 2014) These points further stress that the LAS might play a more important role in conflict resolution over transboundary river waters than captured by this study, and should be considered a key stakeholder and potential partner for conflict de-escalation.

The LAS might wish to remain secretive to some extent to accomplish its objectives, but it is a very opaque organization that lacks institutional knowledge which

harms its functions and could lead to unintended consequences and conflicts within the organization, among members, with external partners, and with non-Arab neighboring states. As discussed in the extant literature chapters, the efficiency of institutions—in addition to their inclusivity and flexibility—is key to mitigating conflict and avoiding perverse outcomes. Thus, I would recommend that the LAS take steps to build its institutional knowledge and increase its internal and external communications; such measures could include moving from a paper-based communication system to email; enhancing its web-based resources for its partners and the public; and more regularly publishing at least select outcomes of LAS meetings. According to Wills, the LAS still completes nearly all of its work via hard copy, and according to Alfonse, the LAS has yet to implement plans to roll out a bilingual working website to advertise its initiatives. (Wills 2016, Alfonse 2016) Such efforts could help its administrators to understand the organization better, improve its operations with its finance and technical arms and other external partners, and even might bolster its international credibility. External partners might be able to dovetail better with the organization to improve the aid it provides to the region and thus could be encouraged to grant more assistance. All of these efforts and implications could help it and its partners to better achieve desired outcomes in transboundary river water issues and at a minimum, would provide an improved information flow to inform discussions about international river water concerns and the LAS's roles and tools to address them.

#### **7.4 Looking Outside the LAS: Lessons Learned From Other ROs & River Water Regimes**

The LAS and its AMWC can look to other established transboundary river water management regimes and ROs that are involved in governing international river water issues to craft more responsive, effective, and robust institutional mechanisms and practices, and to help formulate a more robust FCSWRAC. Other stakeholders working

with the LAS, such as CAR researchers and practitioners, the donor community, IGOs, ROs, governments and the private sector can also apply such lessons to help support cooperative outcomes and the construction of river water development projects. This section focuses on examples drawn from the European Union (EU), the South African Development Community (SADC), the Mekong River Commission (MRC), and the Amazon River Basin (ARB). The beginning of each section highlights recommendations for the LAS's involvement in transboundary river water issues and follows with the reasoning for those suggestions based on the examples from other ROs and river basin governance organizations.

#### **7.4.1 Establish Administrative Bodies Focused on Rolling Out the FCSWRAC**

The LAS should simultaneously establish administrative units with the FCSWRAC to efficaciously implement its guidelines and standardize river water monitoring practices to enhance information sharing and produce positive interstate outcomes. Where possible, the LAS should make use of existing administrative units and incorporate them into a larger framework to account for existing stakeholders and capitalize on economies of scale. Administrative units should have regular meetings with all riparian countries to enhance communication and transparency and should grant timely warnings to other riparian countries about changes in plans to river water management.

Several of the more successful RO approaches to improving regional river water management quickly established administrative units to facilitate members' compliance with and progress towards meeting the expectations laid out in RO water conventions. For example, the EU's 2000 Water Framework Directive (WFD), established new administrative units called river districts based on the locations of the river basins instead of country boundaries, and the river districts are responsible for implementing the WFD's directives, monitoring and taking steps to improve the river's conditions, and reporting

their findings back to the overarching administration. The use of river districts helps states to conceptualize their responsibilities for water stewardship outside of their borders. (Keessen et al 2008, Louka 2008) The LAS might wish to consider replicating the EU's idea of river districts to encourage cooperation and shared responsibility for basins based on the river's geography, instead of just the portion of the basin that falls within a member state's territory.

Similarly, at the same time of the creation of the MRC in 1995, its founders established administrative bodies to carry out its guidelines. Its institutional framework created a Council composed of river basin country officials that serves as the main policy-making body; a Joint Committee in charge of carrying out the Council's directives, managing the MRC's budget, planning river water projects, monitoring river water conditions, and entering donor agreements; and a Secretariat for carrying out the MRC's day-to-day operations, which is supervised by the Joint Committee. The Council is required to meet once a year, a measure that helps to keep communication open between the national governments of the MRC members. The MRC also provides centralized training for all member countries' officials that work on river water issues, helping to make sure its administrative units are able to carry out their duties and use consistent measurement processes across the basin. (Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin 1995)

The LAS might also look to the MRC as a model for establishing different levels of administration, to build on existing river water monitoring programs, and to establish more frequent meetings to enhance communication that can be key to resolving disputes. In essence, the AMWC is the same as the Council, so the other two forms of administrative bodies could dovetail with the LAS' existing administration nicely and help the LAS to carry out and implement its FCSWRAC when finalized. Like the MRC's Joint Committee's monitoring program, the LAS could look to build on the SOW efforts

by the AWC and CEDARE to establish standards of water monitoring and reporting, providing regular information to all riparian partners in a timely and transparent manner to help inform states about possible river water changes so that they can respond accordingly. The LAS and its sub-organizations, which currently have infrequent and ad hoc meetings, should look to meet on a regular and consistent basis to improve administration and help to implement the organizations guidelines, including those regarding river water management.

Lessons learned from other RO's development and implementation of river water protocols and administrative units underscores that ROs should also make use of existing river administration units wherever possible. One of the key problems that the EU faced in the initial implementation of its WFD is that it did not incorporate or make use of existing river administrative units into its framework, which led to frustration and inefficiencies with existing river administrative units and stakeholders. (The Water Framework Directive and the Floods Directive 2012) The SADC, however, when rolling out its 1995 Protocol on Shared Watercourse Systems, incorporated about 20 different river basin administrative units within the Southern African region and quickly established four overarching administrative units to standardize regional practices on transboundary river water management. The SADC also jointly agreed on 30 river water projects that removed impediments to the implementation of its institutional framework, garnering supports from all riparian partners and giving the administrative units goals to work towards. (Wirkus and Boge n.d.) The SADC experience proved more successful than the EU's WFD directive in terms of making use of existing administrative units and giving them uncontested directions of how to move forward with implementing their mission, but did not make explicit use of the transboundary river district concept.

In contrast, the Amazon River Basin countries did not create administrative units simultaneously when they established their 1978 treaty to manage the river and in 1998

had to amend their framework, in part because they found it necessary to have an administrative secretariat. (The Amazon River Basin Treaties and Organizations 2012)

Thus, the LAS can learn from the Amazon River Basin management regime's experience in this regard.

#### **7.4.2 Establish Robust Dispute Resolution Mechanisms, Synch with Other ROs**

The LAS should formally encourage Arab states to develop water management regimes with all riparian partners, including non-Arab partners, in accordance with international conventions and the FCSWRAC. These regimes should be flexible to account for environmental changes or fluctuations, such as droughts. The LAS should develop stronger and more detailed conflict resolution, mediation, and arbitration frameworks and tools, making use of such institutional facets from other ROs where they exist. The SADC and EU have had success with different levels of punitive measures to dissuade non-compliance with their transboundary river water conventions, suggesting that the LAS might wish to strengthen its institutional underpinnings to achieve its intended outcomes with the FCSWRAC. The SADC, perhaps one of the most similar ROs in terms of geography, ecology, and culture to the LAS and Arab region, makes use of other African ROs institutions and legal standing to give it more institutional strength. The LAS could look to employ the assistance of such African ROs for Arab water basins in the African continent.

The EU's WFD formalizes the principle that member states should work towards establishing an official regime for the utilization and stewardship of international river waters, including with non-member states. If riparian states cannot come to an agreement to form their own regime, the European Commission (EC) offers to mediate between them, but its decisions are non-binding. (Keessen et al 2008) However, the WFD permits the EC to sue upstream EU member states who fail to meet their WFD or river district management obligations through the European Court of Justice, which can issue penalties

and fees. (Keessen et al 2008) Like the WFD, the LAS might wish to formalize the principle that Arab states should strive to develop interstate regimes with their riparian partners in its FCSWRA to delineate riparian states' expectations about each other's future river water management decisions. This would allow the LAS to project an image of an organization that promotes more peaceful interactions with non-Arab riparian countries and might shift Arab states' framing away from viewing the LAS as the go-to organization to voice complaints about non-Arab states' water management to the international community.

The SADC Protocol coordinates with and employs the tools of other ROs in its conflict resolution policies; and institutionalizes procedures for countries and peoples harmed by an upstream country's use of water to seek compensation. Any differences between states' interpretations of their responsibilities under the Protocol is referred to the SADC's tribunal for a binding decision, establishing its role as a mediator and arbiter with some institutional strength. (Revised Protocol on Shared Watercourses in the Southern African Development Community 2000) In addition, the Protocol also synchs with other ROs, significantly helping to improve broader regional coordination and making use of the institutions and tools of other ROs to come to peaceful resolutions over transboundary river waters. For instance, the Protocol enables member states to bring cases before the African Union's (AU) Peace and Security Council and the AU's Court of Justice for retribution and, in turn, "the Court of Justice also has a close partnership with the dispute-settlement institutions and mechanisms of various regional organizations." (Wirkus and Boge n.d., p. 85) In contrast, the LAS's FCSWRAC as presently presented to the public does not specify dispute resolution mechanisms or how its structure will synch with other ROs like the AU. The LAS could consider providing for specific measures for mediation and arbitration in its FCSWRAC, and might consider giving its AMWC some institutional strength to make binding decisions to deter states' non-compliance with its

FCSWRAC, and could benefit from including mechanisms to coordinate with and make use of other existing ROs tools.

Even if RO member states are unsuccessful at achieving river management agreements with all countries within the basin, the example of the MRC shows that the administration established by some riparian states can still lead to basin-wide enhanced cooperation by creating a centralized point of contact with which to engage and share information with for riparian countries outside of the institution. For instance, in 2002, China installed water data measurement stations in its portion of the Mekong River Basin that relays water levels to the MRC Secretariat, providing MRC members with useful forecasting information about their potential downstream water flow. Chinese representatives also sometimes attend the MRC Committee's meetings which can also serve to improve interstate communications about the river. (Menniken 2007) Among MRC countries, the MRC Agreement helps to mitigate conflict by delineating expectations about water management during dry seasons and establishing that member states need to notify other members about upcoming projects in a timely fashion. If one country alleges that another country's actions are affecting its water flow, the accused country must immediately cease the activity until it can be proved otherwise. This places greater emphasis on protecting country's river water rights as opposed to economic development.

In conclusion, the LAS might reach out to other such ROs and river basin management regimes to learn from other regions' experience in creating transboundary river water management institutions as it looks to craft and role out its FCSWRAC. It should look to create a strong but flexible institution to guide international river waters, establish capable administrative units to help implement its guidelines, encourage collaboration with non-Arab riparian countries, create robust mediation and conflict resolution guidelines, and account for environmental changes in its institutions. The

provision of strong and resilient Arab institutions can help to lead to better management with non-Arab institutions by providing a joint point of contact and entity for cooperation, even if the overall foreign policy relationship remains antagonistic with some of its Arab neighbors. Hopefully, such outcomes could serve as confidence-building measures to relieve overall interstate tensions over time and lead to better environmental and developmental outcomes. The next section explains nascent discussions among governments, businesses and investors, and civil society about the possibility of trading water, including in exchange for oil, which could be of particular relevance in the Middle East and North Africa where some countries are richly-endowed with hydrocarbons but lack sufficient freshwater supplies.

### **7.5 Exploring Interstate Natural Resource Trade: Can Oil & Water Mix?**

The question about whether the trade of oil for water is politically, technologically, or economically feasible is especially interesting when juxtaposed in the discussion about upstream-downstream transboundary river water management because, similar to hydro-hegemony, states in which oil pipelines originate in or countries through which oil pipelines transit have the ability to affect the flow of receiving countries. For example, in 2006, Russia temporarily halted the flow of gas through Ukraine to protest Ukraine's siphoning of Russian oil destined for Europe. In turn, this increased regional pressure on Ukraine to stop exploiting its position as a transit country for the natural resource and prompted Ukraine to acknowledge its indiscretion and pay additional fees. (Ukraine Takes Extra Russian Gas 2006) In 2014, Ukraine significantly slowed the water flow of a canal from a Ukraine-origin river to Crimea to protest Russia's annexation of the territory. (Russia Fears Crimea Water Shortage as Supply Stops 2014) Thus, Russia has control over a primary energy source for Ukraine, but Ukraine has control over water for a Russian-controlled territory; this puts both countries in a position to supply each

other with more of their natural resource holdings in exchange for the other's and ease interstate tensions.

Turkey has explored and is currently constructing a project to share its freshwater resources in hopes to eventually trade it for oil, and its nascent efforts to construct a project will help to illuminate the pitfalls and benefits of such an exchange. In the 1990s, Turkey proposed piping some of its freshwater to other Middle Eastern countries via a Peace Pipeline, although the project has so far failed to come to fruition. There are concerns by other Middle Eastern countries that it would increase their dependence on Turkey, making it a stronger regional hegemon in general. Thus, these Middle Eastern countries, many of which are Arab, have so far opted to use other methods to increase their freshwater supplies, such as desalinating sea water. (Del Rio Luelmo 2008) Ongoing regional instability also raised questions about the security of the project and whether, for instance, Syria might stop the water flow in the pipeline from going to Israel. (Seibert 2014) The project also raise questions about where Turkey is finding the extra water. If it diverts the flow of some rivers within its territory, it could increase its own domestic demand to use international rivers such as the Tigris-Euphrates-Shatt al Arab basin at the expense of downstream countries and might not help to more efficiently or fairly distribute river waters.

However, in 2015, Turkey initiated the construction of a large pipeline project transversing under the Mediterranean Sea to provide water for drinking and irrigation to the Turkish area of Northern Cyprus, the first of its kind of this infrastructure project in the world. If this pilot project is successful, Turkish politicians say that they would consider similar projects to provide water to other Middle Eastern countries. In addition, the Turkish energy minister said that Turkey's hope is that the cooperation over the Cyprus water pipeline project will also lead to a gas pipeline project to transport gas exports to Europe. (Seibert 2014) However, there is public criticism about the project that

it is postponing the real problem of excess demand for freshwater and instead should be working on more sustainable solutions such as promoting water conservation, reducing water waste, and making use of new technologies such as desalination. (Tremblay 2015)

In sum, nascent discussions, feasibility studies, and some pre-existing interstate infrastructure linkages suggest that trading oil for freshwater might be a possibility in some cases, but many of these options will be politically controversial, expensive, and could still have negative environmental impacts. Since water scarcity is projected to worsen in the region, stronger political will could develop to bring trade agreements and infrastructure projects to full fruition. However, detailed feasibility studies should be carried out including all relevant stakeholders and the process of conducting those studies and any information pertaining to them should be made transparent and publicly available to facilitate cooperation and garner support for these agreements and projects.

## APPENDIX

### Appendix 1: New Water Event Data Points Generated for 2009-14

**Table 15: Water Event Data 2009-14 Involving the LAS**

<b>Event 1</b>	
Date	10/19/09
Bcode	TIGR
Primary Actor and Target BAR_Scale	4
Non-Arab-Arab BAR_Scale	4
Inter-Arab BAR_Scale	4
Non-Arab-Arab BAR_Scale Event Description	Legal, cooperation actions between nations that are not treaties
Inter-Arab BAR_Scale Event Description	Legal, cooperation actions between nations that are not treaties
Regulator	No
Forum	Yes
Pooler-provider	No
Event Summary	Iraqi official says that during a meeting between Iraqi, Turkish, and Syrian foreign ministers with the Arab League Secretary General, the Turkish Government guarantees Iraq a flow of Euphrates River water at the rate of 450-500 meters per second until October 20, 2009; the meeting was originally focused on non-water issues of handing over Ba'thist leaders residing in Syria suspected of terrorism
Issue Type 1	2
Issue Type 2	None
News Source	Al-Iraqiyah Television
<b>Event 2</b>	
Date	05/31/10
Bcode	NILE
Primary Actor and Target BAR_Scale	-1
Non-Arab-Arab BAR_Scale	-1

Inter-Arab BAR_Scale	1
Non-Arab-Arab BAR_Scale Event Description	Mild verbal expressions displaying discord
Inter-Arab BAR_Scale Event Description	Conferring on problems of mutual interest
Regulator	Yes
Forum	Yes
Pooler-provider	No
Event Summary	Arab League Secretary General Amr Musa is received by the Egyptian President and Musa announces that "The Arab League is ready to play a necessary role as regards the Nile crisis" and Musa begins to make arrangements to hold an Arab-African summit on the Nile dispute by October or November; some unspecified Arab countries are funding million-dollar projects in Nile Basin countries
Issue Type 1	8
Issue Type 2	No
News Source	Al Misri al-Yawm
<b>Event 3</b>	
Date	07/01/10
Bcode	TIGR
Primary Actor and Target BAR_Scale	-1
Non-Arab-Arab BAR_Scale	-1
Inter-Arab BAR_Scale	-1
Non-Arab-Arab BAR_Scale Event Description	Diplomatic note of protest
Inter-Arab BAR_Scale Event Description	Diplomatic note of protest
Regulator	No
Forum	Yes
Pooler-provider	No
Event Summary	Iraqi Minister of Water Resources delivers letter to the Arab League, asking it to help with its water challenges, and warning Turkey and Syria of transgressing on Iraq's share of its Tigris River waters, saying it would harm Iraq's development and agriculture projects, cause shortages in drinking water, and undermine its ability to generate electricity; the letter complains of Turkish-Syrian coordination and disregard for agreements signed between the three countries
Issue Type 1	8
Issue Type 2	None
News Source	Al-Iraqiyah Television
<b>Event 4</b>	
Date	07/02/10

Bcode	NILE
Primary Actor and Target BAR_Scale	2
Non-Arab-Arab BAR_Scale	2
Inter-Arab BAR_Scale	2
Non-Arab-Arab BAR_Scale Event Description	Official verbal support of goals
Inter-Arab BAR_Scale Event Description	Official verbal support of goals
Regulator	Yes
Forum	No
Pooler-provider	No
Event Summary	Arab League Secretary General Amr Musa publicly calls for mutual understanding among Nile River nations over water rights sharing conflict
Issue Type 1	8
Issue Type 2	None
News Source	Xinhua News
<b>Event 5</b>	
Date	07/06/10
Bcode	All
Primary Actor and Target BAR_Scale	-2
Non-Arab-Arab BAR_Scale	-2
Inter-Arab BAR_Scale	2
Non-Arab-Arab BAR_Scale Event Description	Strong verbal expressions displaying hostility
Inter-Arab BAR_Scale Event Description	Official verbal support of goals
Regulator	Yes
Forum	Yes
Pooler-provider	No
Event Summary	Arab Water Ministerial Council meets on July 7, 2010 to discuss adopting comprehensive water strategy to protect river rights regarding neighboring states and address water shortages; claims that Israel steals the most water from its Arab neighbors
Issue Type 1	2
Issue Type 2	8
News Source	Al-Jazirah
<b>Event 6</b>	
Date	09/25/10
Bcode	NILE

Primary Actor and Target BAR_Scale	-2
Non-Arab-Arab BAR_Scale	-2
Inter-Arab BAR_Scale	1
Non-Arab-Arab BAR_Scale Event Description	Condemning strongly specific actions or policies
Inter-Arab BAR_Scale Event Description	Mild verbal support
Regulator	Yes
Forum	Yes
Pooler-provider	No
Event Summary	On the sidelines of an extraordinary Arab Ministerial Council meeting on water at the Arab League Headquarters in Cairo, Sudanese representatives to the Arab League say that the Nile Basin Initiative (NBI) is not agreed upon by all states in the Nile Basin, that the NBI should be reconsidered, and that it would be discussed in Kenya the following October; Sudan's Ambassador to the Arab League calls the agreement that was signed by 5 out of 7 states of the NBI last May "illegitimate"
Issue Type 1	8
Issue Type 2	None
News Source	Al-Jazirah
<b>Event 7</b>	
Date	10/17/10
Bcode	LKCH, NGER
Primary Actor and Target BAR_Scale	2
Non-Arab-Arab BAR_Scale	0
Inter-Arab BAR_Scale	2
Non-Arab-Arab BAR_Scale Event Description	Neutral/non-significant
Inter-Arab BAR_Scale Event Description	Asking for aid
Regulator	No
Forum	Yes
Pooler-provider	No
Event Summary	Chadian President at the Arab African Summit including LAS officials, calls for Arab financial assistance for "tapping" rivers and lakes, saying it is a win-win for the Arab and African regions, says collective action is required to prevent Lake Chad and Niger River from drying up, which could pose regional security threats
Issue Type 1	11
Issue Type 2	8

News Source	N'Djamena Presidency of the Republic of Chad
<b>Event 8</b>	
Date	12/02/10
Bcode	NILE
Primary Actor and Target BAR_Scale	4
Non-Arab-Arab BAR_Scale	0
Inter-Arab BAR_Scale	4
Non-Arab-Arab BAR_Scale Event Description	Neutral/non-significant
Inter-Arab BAR_Scale Event Description	Making economic loans
Regulator	No
Forum	No
Pooler-provider	Yes
Event Summary	Kuwait Fund for Arab Economic Development announces a loan package totaling \$500 million for dam construction in the Seteit (or Setit) River, a sub-basin on the Nile River; the dam is projected to cost \$800 million
Issue Type 1	10
Issue Type 2	11
News Source	Sudan Vision Online
<b>Event 9</b>	
Date	01/01/13
Bcode	NILE
Primary Actor and Target BAR_Scale	4
Non-Arab-Arab BAR_Scale	0
Inter-Arab BAR_Scale	4
Non-Arab-Arab BAR_Scale Event Description	Neutral/non-significant
Inter-Arab BAR_Scale Event Description	Making economic loans
Regulator	No
Forum	No
Pooler-provider	Yes
Event Summary	Arab Fund for Social and Economic Development provides funding, support for expansion of Roseries Dam on the Blue Nile in Sudan
Issue Type 1	10
Issue Type 2	11
News Source	Reuters, Sudan Vision
<b>Event 10</b>	

Date	05/23/13
Bcode	NILE
Primary Actor and Target BAR_Scale	-3
Non-Arab-Arab BAR_Scale	-3
Inter-Arab BAR_Scale	2
Non-Arab-Arab BAR_Scale Event Description	Unilateral construction of water projects against another country's protest
Inter-Arab BAR_Scale Event Description	Asking for help against third party
Regulator	No
Forum	Yes
Pooler-provider	No
Event Summary	Sudanese Ambassador to Egypt and Arab League Representative Kamal Hassan says that Sudan and Egypt will take their concerns about the Grand Ethiopian Renaissance Dam project and the diversion of Nile waters to the Arab League to resolve the matter
Issue Type 1	2
Issue Type 2	8
News Source	Egypt Independent
<b>Event 11</b>	
Date	08/17/13
Bcode	NILE
Primary Actor and Target BAR_Scale	3
Non-Arab-Arab BAR_Scale	0
Inter-Arab BAR_Scale	3
Non-Arab-Arab BAR_Scale Event Description	Neutral/non-significant
Inter-Arab BAR_Scale Event Description	Proposing or offering economic aid
Regulator	No
Forum	No
Pooler-provider	Yes
Event Summary	Arab League provides unspecified aid to Sudan for Nile River flooding, calls on Arab League members to provide aid
Issue Type 1	6
Issue Type 2	None
News Source	Sudan Tribune
<b>Event 12</b>	
Date	12/22/13
Bcode	JORD

Primary Actor and Target BAR_Scale	-2
Non-Arab-Arab BAR_Scale	-2
Inter-Arab BAR_Scale	1
Non-Arab-Arab BAR_Scale Event Description	Warning retaliation for acts, condemning strongly specific actions or policies
Inter-Arab BAR_Scale Event Description	Mild verbal support
Regulator	Yes
Forum	No
Pooler-provider	No
Event Summary	Arab League General Secretary says that Israeli soldiers will not be allowed along Jordan River, rejects US and Israeli proposal for peace negotiations
Issue Type 1	13
Issue Type 2	12
News Source	Jerusalem Post
<b>Event 13</b>	
Date	10/02/14
Bcode	NILE
Primary Actor and Target BAR_Scale	3
Non-Arab-Arab BAR_Scale	3
Inter-Arab BAR_Scale	0
Non-Arab-Arab BAR_Scale Event Description	Proposing or offering economic aid
Inter-Arab BAR_Scale Event Description	Neutral/non-significant
Regulator	Yes
Forum	No
Pooler-provider	No
Event Summary	South Sudan and Egypt Foreign Ministers meet to discuss water security and Nile waters cooperation and Egypt expresses interest in aiding with South Sudan development projects; South Sudanese Foreign Minister meets with Arab League Secretary General about unspecified development projects
Issue Type 1	8
Issue Type 2	10
News Source	KUNA

## **Appendix 2: Timeline of Key International Events Influencing the Formation & Activities of the LAS, Arab Nationalism's Rise & Fall**

- 1936-39** : Arab Revolt in Palestine against British colonial rule and the influx of Jewish immigrants
- early 1940s** : Founding of Ba'th (Arab Renaissance) party in Syria by Michel 'Aflaq and Salah al-Din Bitar, calling for Arab unity
- 1943** : Iraqi Prime Minister quietly circulates a plan to Great Britain and other Arab states to form a federation between Syria, Palestine, Lebanon and Jordan into a single state and the establishment of an Arab League, to be formed initially by Iraq and the new Syrian state, that would be open to other Arab states to join
- 1944** : Alexandria Protocol
- March 22, 1945** : Creation of the League of Arab States
- mid-1940s** : Nationalist movements start to form in Tunisia, Algeria, and Morocco
- November 29, 1947** : UN Resolution for the Partition of Palestine
- November 30, 1947-July 20, 1949** : Palestine War or War of Independence
- 1947** : Arab countries support nationalist movement in Morocco, harboring separatists
- May 14, 1948** : Israel announces its Declaration of Independence, United Kingdom withdraws from Palestine
- 1948** : LAS boycotts Israeli goods and companies
- May 15, 1948-March 10, 1949** : Arab-Israeli War, a coalition of Arab military forces loses the war to prevent the establishment of Israel; following the war, Jordan governs the West Bank and Egypt rules over the Gaza Strip
- late 1940s** : Branches of the Ba'th party form in Lebanon, Jordan, and Iraq, which espouses an ideology that Arab peoples can achieve independence from imperialist powers only through full Arab unity
- 1946-54** : Hashemite (Iraq & Jordan) dynasty versus non-Hashemite countries (Saudi Arabi, Egypt, Syria, Yemen) dominate inter-Arab politics
- 1950** : LAS Treaty of Joint Defense and Economic Cooperation; LAS opposes Jordan's annexation of West Bank
- 1953** : Founding of the Cairo-based Voice of the Arabs radio station that broadcasted in Arabic across the Arab world, promoting ideas of pan-Arabism
- 1954-1970** : Gamal Abdel Nasser, a vocal advocate of Arab Nationalism, serves as Egypt's President
- November 2, 1954-March 19, 1962**: Algerian War for independence
- 1954-56** : Iraq negotiations with Turkey and Britain for Baghdad Pact; ties with Western military powers becomes paramount in inter-Arab relations
- February 1955** : Israeli paratroopers destroy Egyptian army headquarters in Gaza (Gaza was then under Egyptian control)
- 1956** : France recognizes Tunisia's independence; Israel invades Egypt's Sinai Peninsula during the Suez Crisis or Tripartite Aggression, adding to the Arab view that Israel is an extension of imperialist powers
- 1958** : The LAS is recognized by the United Nations, and is becoming the Arab world's pre-eminent education, science, and culture for international engagement
- Feb 1958-Sept 1961** : United Arab Republic of Egypt & Syria formed, but a coup in Syria in 1961 undoes unification
- February 14, 1958-July 14, 1958** : Jordan and Iraq unify as a Hashemite "Arab Union," but a coup in Iraq in July undoes the unification

**Sept 1961-Feb 1963 :** The first LAS peacekeeping force, the Arab League Force, operates in Kuwait during Kuwaiti-Iraqi tensions

**September 1962-1970:** Coup in Yemen in what coup leaders portray to then-Egyptian President Nasser as a movement dedicated to Arab nationalism, Egypt commits troops to help counter overthrown monarch and the conflict becomes protracted

**1963:** Coups in Iraq and Syria bring to power Arab Nationalist Ba'athists; Iraq, Syria, and Egypt hold tripartite talks about unification into a new United Arab Republic

**January 1964 :** The LAS holds its first summit meeting of Kings and Heads of State; Israel's diversion of the Jordan Waters for its national water carrier project is discussed

**September 1964:** The LAS forms the Palestine Liberation Organization

**1965 :** Arab common market is formed

**1966 :** Arab nationalist Ba'athist government removed from power in a coup in Syria, removing old guard Ba'athist party leaders who seek refuge in Iraq and giving power to newer Ba'athist party members, creating greater division between the Syrian and Iraqi Ba'athist parties

**June 5-10, 1967 :** Six-Day War; LAS issues Khartoum Resolution that LAS members will not negotiate with, recognize, or form peace with Israel

**1970s :** Influx of oil wealth into Arab Gulf states enables the governments to embark on social spending programs and strengthens their social contract

**November 13, 1970:** Coup in Syria puts Alawite leader Hafez al-Asad in power, rising the salience of Sh'ia Islam for some Syrians, and bringing Alawite minority into senior government positions

**December 1971 :** Emirates unify into the single state of the United Arab Emirates

**1972 :** LAS brokers ceasefire between North and South Yemen

**October 1973 :** Egyptian and Syrian security forces attack Israel in the “Yom Kippur War”

**June-Oct 1976 :** The LAS deploys a peacekeeping force to Lebanon, the Symbolic Arab Security Force

**Oct 1976 :** The LAS calls for ceasefire to Lebanon Civil War

**Oct 1976-Mar 1983 :** The LAS deploys another peacekeeping force to Lebanon, the Arab Deterrent Force

**Jan 1978-Feb 1979:** Iranian Revolution installs a Shia-dominated regime, Sunni-dominated Arab regimes become concerned about how it will effect Shia-minorities in region and if Iran will try to export its revolution

**September 1978 :** Egypt, Israel, and the United States sign the Camp David Accords, a precursor to the formal peace agreement signed in March 1979

**March 1979 :** Egypt signs a peace agreement with Israel and is suspended from the LAS, most Arab states cut off their diplomatic ties with Cairo in protest, and the LAS headquarters are moved to Tunisia

**September 1980-August 1988 :** Iran-Iraq War

**1981 :** Gulf Cooperation Council formed

**1982 :** Egypt is readmitted to the LAS under calls for greater Arab unity

**1987 :** The LAS issues an official statement defending Iraq's position in the Iran-Iraq War

**1989 :** Egypt is readmitted to the LAS

**1990 :** North Yemen and South Yemen, which had been politically separate for centuries, are united into one country

**1992-95 :** Peace negotiations between almost all Arab countries and Israel; Oslo Accords are signed

**1996 :** LAS issues a statement that waters of the Euphrates and Tigris Rivers must be shared by Iraq, Syria, and Turkey

**August-February 1990** : Iraq invades and annexes Kuwait; the LAS condemns Iraq's move

**May-July 1994** : Yemen Civil War, southern separatist forces are defeated and South Yemen and North Yemen are re-united into one country

**2002** : LAS devises Arab Peace Initiative plan to attempt to resolve Arab-Israeli conflict

**March 19-May 1, 2003** : U.S. invades Iraq, LAS members are divided over the conflict, with some states providing facilities to the U.S. and others strongly opposing the U.S.'s move

**January 2005** : Free trade zone between 17 LAS members implemented

**March 2011** : LAS bars Libya from LAS meetings because of violent government suppression of internal violence

**March 2011** : LAS asks international community to oppose no-fly zone over Syria, co-sponsors a U.N. resolution

**August 2011** : LAS issues condemnation against Syria's internal violence

**November 2011** : LAS suspends Syria's membership

**January 2012** : LAS co-sponsors a UN resolution calling Syrian President Bashir al Assad to resign

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## BIOGRAPHY

Melissa Durham graduated from Lincoln High School in Manitowoc, Wisconsin in 2001. She received her Bachelor of Arts with Distinction in Scholastic Achievement from the University of Wisconsin-Madison in 2005, majoring in Political Science and Economics and receiving a Certificate in European Studies. She also received a Certificate in French from the University of Paris-La Sorbonne in 2003, which she renewed in 2009. Melissa was one of a few elite students accepted into the Accelerated Master's Degree Program at the LaFollette School of Public Affairs at the University of Wisconsin-Madison, where she earned her Master's Degree in International Public Affairs in 2006, specializing in International Development, International Business and Government, and Public Management and Administration. The same year, she also served as a Graduate Fellow in the U.S. Embassy in Colombo-Sri Lanka covering post-tsunami reconstruction, child soldiers in the Liberation Tigers of Tamil Eelam, prisoner rights issues, and women's and children's issues. Upon returning to the United States, she volunteered for with the US branch of a Sri Lankan NGO, Sarvodaya. Melissa then served as a Legislative Assistant to a Wisconsin State Senator, staffing Senate Committee on Small Business, Emergency Preparedness, Workforce Development, Technical Colleges, and Consumer Protection. In 2007, she moved to Washington D.C. to join the Executive Branch of the U.S. Government and, in 2008, started her Ph.D. program. She participated in a George Mason University study abroad program entitled Environmental and Geopolitical Conflicts in Israel and the Palestinian Territories in 2010, and has travelled extensively throughout the Middle East and North Africa. She also attended the UN-mandated University for Peace's Environmental Security Assessments training program in Ciudad Colon, Costa Rica in 2011.

- i Some Arabs blame Israel for the failure of the Jordanian riparian countries to agree to an agreement, but third-party negotiators present at the Johnston plan discussions refute this claim. (Dawn 1996)
- ii Neo-classical economists tend to define institutions as markets or property laws that are constraints guiding a rational actor seeking to maximize its profits and focuses on the individual. (Vatn 2005, Peters 2012) This paradigm can be traced back to the beginning of the field of economics, with Adam Smith's argument that market forces act as an “invisible hand” which shape a person's consumption patterns. Certain elements of this conception of institutions hold true for hydro politics, because actors or in this case states, especially those with excess demand for water, are in many instances trying to maximize their use and sometimes share of the river flow. The river within a state is bounded by the internationally-recognized borders, a type of convention on property rights that serve as a constraint on the state’s ability to use the river, and in the absence of aid is constrained by its own ability to fund water management projects. However, the leaders within an institution that are making the policy are not always rational, especially when one considers past histories with riparian partners.
- iii Some literature emphasizes the requirement of at least three sovereign states to more clearly distinguish IGOs from bilateral organizations.
- iv States have been in existence for roughly 500 years and took root in Europe amid centuries of violent conflicts and alliance building. (Finnemore 1993)
- v The starting date of the Cold War is debated. Cleveland (2006) contends that the Cold War started in 1946 when the USSR failed to pull its military out of Iran as agreed to by other Allied powers.
- vi The main exception to the body of extant environmental literature focused on in this paper—because it is not relevant to the study of conflict over scarce transboundary river water—is the paradigm championed by Paul Collier, who argues that it is an abundance of a sellable natural resource that leads to violent conflict. This school argues that environmental conflict will erupt if there is an opportunity to profit, prompted by a few rent-seekers, who shape real or perceived grievances to mobilize followers to participate in rebellion (Collier 2007).
- vii Citizens, non-governmental organizations, and localized agreements can also play a pivotal role in environmental conflict resolution by facilitating and serving as tools of collective action. Ostrom (1990) pointed out that peoples have long relied on indigenous methods of common pool resource management effectively without state-based intervention and Islam and Susskind (2013) state the importance of considering local, contextual information in resolving water conflict disputes.
- viii Low-level violent conflict, meaning that a few shots are fired between state militaries or the partial destruction of minor river water supply infrastructure projects. There is considerable disagreement in the formal definition of low-intensity conflict, but it generally includes counterinsurgency, insurgency/resistance movements, counter-terrorism, contingency operations, and peacekeeping. (Dougherty and Pfaltzgraff 2001)
- ix The name of this group is also translated as the Islamic State of Iraq and al-Sham or Islamic State of Iraq and Syria (ISIS).
- x In fact, the origins of water law principles originated in Mesopotamia, part of the ancient Arab World, (Elver 2006) highlighting it as an important area of historical institutional study.
- xi For example, in negotiations over rights to the Nile River Basin, Egypt has cited the “no appreciable harm” clause, while upstream states such as Ethiopia have underscored their entitlement to “equitable use” in its construction of the Grand Ethiopian Renaissance Dam, which far has created a political deadlock on the establishment of a regionally-recognized, permanent water governance institution.
- xii Also popularly known as Lake Tiberias or Lake Kinneret.
- xiii The Jordan River is formed by a confluence of three rivers: the Baniyas River in Syria, the Hasbani River in Lebanon, and the Dan River in Israel which flow to the Sea of Galilee and continue as the Jordan River south of the lake.
- xiv Lowi focuses on a case study of the Jordan River Basin and conducts secondary comparative case studies of the Euphrates, Nile, and Indus River Basins.

- xv Gleick employs historical analysis, citing a range of examples demonstrate empirical evidence for his explanations.
- xvi They use a dataset compiled by Tostet from the Correlates of War (COW) database and a 1978 UN database that compiles all rivers of the world longer than 10 kilometers, although they point out the UN database is out of date given the formation of a number of new countries since then. Tostet attempted to supplement the additional dataset with newer information resulting in 1274 dyads with shared rivers over the 1816-1992 period. The main dependent variable is drawn from the COW's Militarized Interstate Dispute's database, which they point out is problematic in that there are so few incidences of interstate wars that the results rely heavily on those few events and it would be rare that water conflicts would escalate into a full act of war.
- xvii This is discussed more in my research section as the Oregon State University data.
- xviii I use the terms events, instances, and interactions interchangeably.
- xix Unfortunately, in the context of the Arab World, oppressive and exclusive regimes in the Arab World have significantly suppressed the formation of citizen-based and non-governmental collective action, which they see as a challenge to their rule. (Barakat 1993; Waterbury 2002) This is one of the main reasons to use the the state-based LAS the focal point for study in the Arab context. States are also the entities with the authority to negotiate with other states in the LAS, sign treaties, and serve as the ultimate decision-making body for the military. Moreover, the focus of the LAS allows us to consider regionalized, culturally unique forms of collective action—either to resolve or escalate conflict—that have not yet been considered and how they are applied within an international context. The focus of the LAS is not inclusive of all mediums or instances of conflict and cooperation among Arab states.
- xx Some scholars use different terms while describing nationalist sentiments along the spectrum, but I do not make a distinction because they are all nationalisms to a varying degree. For instance, Dawisha refers to the notion of Arab shared cultural identity as “Arabism,” while he refers to the desire for political unity in a shared geographic territory as “Arab nationalism.” (2003)