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# **The Relationship between Oil and Terrorism: A Comparison of AQAP and ISIS**

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M.A. Thesis

July 2018

A thesis submitted to Khalifa University of Science and Technology in accordance with the requirements of the degree of Master of Arts in International and Civil Security.



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by

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A thesis submitted in partial fulfillment of the  
requirements for the degree of

**Master of Arts in International and Civil Security**

at

**Khalifa University**

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# Abstract

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The aim of this thesis is to understand the relationship between oil and terrorism. In recent years, the expansion of the Islamic state demonstrates a form of terrorism that is different from the methods and operations of other groups such as Hezbollah and Al-Qaeda. The steady supply of oil is integral to our society and terrorism and instability in oil producing countries poses a threat to the oil industry. Terrorist organizations are known to have significant logistical, operational and financial connections with the production and sale of natural resources. These non-state armed groups that operate in conflict-ridden areas are generally able to profit from the production and trade of oil through territorial control.

Although there is an array of literature focusing on terrorism and the various aspects of terrorism and terrorist organizations as well as report and news article on ISIS’s use of oil, limited research has been conducted on the overall relationship between terrorism and oil. This thesis seeks to close that gap.


**Indexing Terms:** Non-State Armed Groups, Oil, Natural Resources and Conflict.

# Declaration and Copyright

## Declaration

I declare that the work in this thesis was carried out in accordance with the regulations of Khalifa University of Science and Technology. The work is entirely my own except where indicated by special reference in the text. Any views expressed in the thesis are those of the author and in no way represent those of Khalifa University of Science and Technology. No part of the thesis has been presented to any other university for any degree.

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Date: July 2018

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# **1. Introduction**

## **1.1. Aim**

The aim of this thesis is to better understand the relationship between oil and terrorism, and in particular the extent to which the exploitation of oil resources and related infrastructure has been a critical factor in the rise of the so-called Islamic State of Iraq and Syria (hereafter referred to by the acronym “ISIS”) and Al-Qaeda in the Arabian Peninsula (hereafter referred to as AQAP). In recent years, the expansion of the ISIS demonstrates a form of terrorism that is different from the methods and operations of predecessor groups such as the Islamic State in Iraq and Al-Qaeda. The chief difference being that ISIS seized large parts of both Syria and Iraq and attempted to administer and govern this space. In order to do so, revenues were required. Though ISIS accrued revenues through a variety of means, the ability to exploit the presence of oil, as well as the wider hydrocarbon supply chain, was clearly highly significant. But to what extent was oil key in the rise of ISIS particular over the period 2014-2016? And, related to the first question, to what degree has the loss of oil revenues been a cause of ISIS’s demise since 2017?

As oil is one of the major resources, along with natural gas, in the Arabian Peninsula, it is not surprising that non-state armed groups in this region would seek to find ways to take advantage of the industry and this natural resource. The infrastructure for extracting and refining oil is generally concentrated to limited areas within a country. While this might lead to the belief that its protection would be simpler, it can also make it extremely vulnerable.

The steady supply of oil is integral to our society and terrorism and instability in oil producing countries poses a threat to the oil industry. Terrorist organizations are known to have significant logistical, operational and financial connections with the production and sale of natural resources. These non-state armed groups that operate in conflict-ridden areas are



generally able to profit from the production and trade of oil through territorial control. For these reasons, it is important to better understand the following:

1. *How conflict, including terrorist acts, in the Middle East affect oil production and prices.*
2. *The degree to which ISIS and AQAP depend on external sources of funding compared to their ability to raise operational revenues locally.*
3. *The mechanisms that link the presence of oil and to the occurrence of terrorism; that is, the way that hydrocarbons and terrorist groups / violent non-state actors are linked.*

Although there is an array of literature focusing on terrorism and the various aspects of terrorism and terrorist organizations as well as myriad think tank reports and news articles on ISIS's use of oil, limited research has been conducted on the overall relationship between terrorism and oil. This thesis seeks to close that gap.

## **1.2 Significance of the Research**

Much of the twenty-first century has been plagued by the growth of terrorism and terrorist attacks. In the Middle East and North Africa, political and misguided religious notions have primarily motivated the perpetrators of these terrorist attacks. While there are numerous terrorist groups of various shades, this research will focus on those whose primary goal is to overthrow governments and establish themselves as a "state". These groups claim to be defending Muslims from oppressive regimes and frequently target non-Muslims on a global scale. Within these groups, oil plays a central role for both political and economic reasons as most nations in the Middle East depend extensively on revenue from oil and oil-related infrastructure. This research focuses on a particular group (namely ISIS) and Al-Qaeda in the Arabian Peninsula (AQAP).

### **1.2.1. Islamic State of Iraq and Syria**

In June 2014, the terrorist group, Islamic State (IS), declared that they were establishing a caliphate (BBC News, 2015). They demanded that all Muslims swear allegiance to its leader, Abu Bakr Al-Baghdadi, and relocate to its territories. According to ISIS, their aim is to defend the Muslim community against non-Muslims and those who seek to harm to the community. When IS declared their caliphate, many were surprised by its existence. This seemed, in terms of agenda and objectives, something new.

The roots of ISIS can be traced back to Abu Musab Al-Zarqawi. Al-Zarqawi began his exploits in terrorism with the establishment of a group in Jordan in the early 1990s (Hosken, 2015). After the US-led invasion of Iraq in 2004, Zarqawi joined forces with Osama Bin Laden and created Al-Qaeda in Iraq (AQI). He utilized his alignment with Al-Qaeda Core to secure more funding and gain new recruits. After receiving this funding, AQI was able to grow and become self-sufficient. In order to further develop, they merged with five smaller insurgent groups and became the Mujahidin Shura Council (MSC). In 2006, Al-Zarqawi died as a result of a US airstrike. After Zarqawi's death, his successors, Abu Umar Al-Baghdadi and Abu Ayyub Al-Masr continued his efforts to expand the organization and consolidate territory. AQI formed the Islamic State in Iraq, which merged various insurgent groups within the country (Hashim, 2014).

With the eruption of the civil war in Syria, ISIS was able to expand its operations into the country fairly easily, further energizing the organization. In early 2011, with the backdrop of the Arab Spring, ISIS continued their expansion and significantly increased their military operations in Iraq. At one point, ISIS militants were carrying out 20-30 coordinated attacks across Iraq within one hour (Reuters, 2011). In 2012, they initiated a 12-month campaign titled "Breaking the Walls" with the main objective being to free their imprisoned members. In total, they launched eight attacks on Iraqi prisons and freed over 500 prisoners, including 47 senior leaders (Lewis, 2013).

In April 2013, as the new leader of AQI, Baghdadi announced a new merger consisting of IS in Iraq and IS in Syria, resulting in the creation of what is now known as The Islamic State of Iraq and the Levant/Syria (ISIS). For the past four years, ISIS has evolved and grown into an organization that has mastered conquering and governing territory. Although the emergence of an anti-ISIS coalition in northern Syria led to the group losing territory in early 2014, it was only a temporary setback.

Since its inception, ISIS and its predecessors have worked to create the necessary foundation to establish their version of an Islamic caliphate. ISIS is a structurally complex terrorist organization with their systematized administrative capabilities, international military capabilities, financial stronghold and their sophisticated use of propaganda.

### **1.2.2. Al-Qaeda in the Arabian Peninsula (AQAP)**

If there is one group that is synonymous with terrorism, it is Al-Qaeda. The origins of Al-Qaeda can be traced back to the mujahideen who fought against the Soviets in Afghanistan. Al-Qaeda in the Arabian Peninsula (AQAP) was formed in January 2009 when Nasir Al- Wahishi announced a merger between the Al-Qaeda operatives in Yemen and Al-Qaeda operatives in Saudi Arabia (Stanford University, 2015). Although AQAP is not the only offshoot from Al-Qaeda that is operational, they are considered to be one of the most dangerous terrorist organizations in the world (Faulkner & Gray, 2014).

Some scholars hold the opinion that the organization has been hindered due to efforts to kill their leadership. Others though, believe that AQAP has actually gotten stronger (Faulkner & Gray, 2014). Despite setting their sights on Western targets, AQAP still continues to carry out domestic insurgencies. In 2008, due to crackdowns by the Saudi Government, members of Al-Qaeda in Saudi fled to Yemen. As of 2014, the US Department of State estimates that AQAP had “close to a thousand members” (United States Department of State, 2013). AQAP has demonstrated that they are committed to their militant ideology with their goals being, according to one influential think tank (Council on Foreign Relations, 2015), to:

1. *Rid Muslim majority countries of Western influence and overthrow secular governments with fundamentalist Islamist regimes who take all law from sharia;*
2. *Destabilize the Yemeni government, resulting in the end of the current ruling order in Sanaa;*
3. *Kill Western nationals and their local allies, including members of the Al-Saud family;*
4. *Attack any Western interests in the region, such as embassies and energy concerns. In particular plan and implement terrorist attacks against the U.S. homeland.*

To fully understand AQAP and how it currently operates, it is necessary to learn the history of the organization and how it became what it is today. Yusuf Al-Uyayri started al-Qaeda in Saudi Arabia in 1998. Al-Uyayri was previously imprisoned in Saudi Arabia for his alleged involvement in the Khobar Tower bombings of 1996 (Faulkner & Gray, 2014). His intention behind Al-Qaeda was to create a Jihadist group that would threaten the Al-Saud Dynasty. In 2002, Abd Al-Rahman Al-Nashiri, a Saudi who previously fought against US coalition forces in Afghanistan, joined him. Al-Nashiri and Al-Uyayri were part of a handful of Saudi mujahideen that returned to Saudi Arabia from Afghanistan to escape the conflict with the US and recruit more fighters in order to continue advancing their group's mission.

Once settled back in Saudi Arabia, Al-Nashiri and Al-Uyayri began their first operation. This operation consisted of carrying out numerous attacks against the Saudi regime, security forces and other government targets. The main goal behind this operation was to prove that Al-Qaeda would not be fazed or hindered by the ongoing war in Afghanistan (Wilkinson & Barclay, 2011). Over a series of 10 months, Al-Nashiri carried out these attacks all over Saudi Arabia. Eventually though, as a result of a joint counterterrorism effort with the Saudi Government and the U.S., Al-Nashiri was arrested. His arrest in 2002 was a huge setback for the organization and led to the conclusion that they needed to operate a network with multiple cells (Faulkner & Gray, 2014).

After Al-Nashiri's arrest, the main body of Al-Qaeda (AQC) instructed Al-Uyayri to lead the vision of Al-Qaeda in Saudi Arabia. By the end of the following year, Al-Uyayri had recruited enough operatives to establish five operational Al-Qaeda cells in Saudi Arabia. With this in place, he initiated the organization's first massive attack since the arrest of his partner. On May 12, 2003, numerous car bombs were detonated by a housing compound in the Saudi capital of Riyadh. This attack killed 34 people and injured over 200 (Wilkinson & Barclay, 2011). Though Al-Qaeda considered this attack to be successful, it led to an immense crackdown on the organization by authorities. Following this attack, the Saudi Arabian government increased their efforts to capture and/or kill all Al-Qaeda operatives in the country. Shortly after this initiative, 100 Al-Qaeda operatives were arrested and 26 were killed, including Al-Uyayri.

Despite this additional failure, Al-Qaeda in Saudi Arabia was able to recruit and recover their weakened base through their successful use of media and propaganda campaigns. Once again, they began focusing almost exclusively on attacking Saudi targets to weaken the government's ability to combat them (Faulkner & Gray, 2014). Eventually, this led to the ultimate downfall of the organization.

Al-Qaeda has had a strong presence in Yemen for multiple decades. While their presence can be traced back to 1988, their first "official" terrorist attack was not until 1992 with the bombing of two hotels in Aden, Yemen (Faulkner & Gray, 2014). Al-Qaeda in Yemen (AQIY) gained widespread international recognition in October 2000 after two suicide bombers detonated explosives by the USS Cole, killing 17 US service members. It was this attack that resulted in international attention towards Yemen in relation to terrorism.

In May 2006, 23 prisoners escaped from a high security military intelligence prison in Sana'a, the capital of Yemen. This jailbreak led to the release of two prominent individuals within the terrorism community, Nasir Al-Wahishi and Qasim Al-Raymi. Al-Wahishi previously served as Osama Bin Laden's personal assistant and fought in Afghanistan after the September 11, 2001 World Trade Center attacks. He is primarily responsible for cementing Al-Qaeda in Yemen. He originally served as the head of AQIY and was the head of AQAP until his death in 2005 (Faulkner & Gray, 2014). While Al-Wahishi served as the head of the organization, Qasim Al-Raymi filled the position of Chief Military Commander of AQAP but is now the current emir. These two individuals are accountable for effectively altering the framework of terrorism in Yemen and the region as a whole.

Following the merger in 2009, AQAP began executing attacks within and outside of Yemen, including the attempted "underwear bomber" attack on a US plane in December 2009 (Council on Foreign Relations, 2015). Since the country's civil war, Al-Qaeda has been stronger. AQAP manages to thrive in an environment of governmental collapse, sectarian struggles and security troubles. According to U.S. officials, AQAP's revenue source is predominantly through robberies, fraudulent charities, revenue from drug sales and kidnappings for ransom. The vast majority of their income though, is derived from private donors based primarily in the Gulf region.

AQAP's status rose significantly after Yemen's Arab Spring uprising. AQAP was able to adapt to the rapidly changing political situation. Like ISIS, AQAP has transformed from an insurgent group to an organization capable of controlling territory and challenging government authority.

### **1.3. ISIS, AQAP and Oil**

As both ISIS and AQAP emerged from and operate within the Arabian Peninsula, both groups have access to ample amounts of crude oil. This access could contribute to the operations of the group, their funding, and their influence in the region. According to Steve Yetiv (2015), oil, along with globalization, leads to the unique conditions that allow international terrorist groups such as these to evolve and grow rapidly. The use of commercial revenue by non-state armed groups to fund their operations is not a new phenomenon. It has been documented throughout studies of civil conflicts in multiple countries such as Colombia and Indonesia that non-state armed groups utilized their country's natural resources to their advantage.

In relation to ISIS and AQAP, it is known that they have been able to acquire capital through the commercial exploitation of the oil sector within the region. With this knowledge, the assumption is made that a lack of investments within the oil sector as well as a decrease in oil revenue creates a negative impact on these groups and their ability to effectively complete their missions. Through the course of this thesis, the key factors are the Islamic State of Iraq and Syria, Al-Qaeda in the Arabian Peninsula, Oil infrastructure and counterterrorism.

### **1.4. Research Question**

The topic of this thesis is to determine the effects and relationship between terrorism and oil and how terrorism benefits from oil infrastructure. In this thesis, I will answer: **“How oil rents and oil infrastructure affect the operations of ISIS & AQAP and to what extent has oil been a factor, comparatively, in the growth and development of ISIS & AQAP?”**

## **1.5. Research Aims**

The primary goal of this thesis is to identify and understand the influence that oil has on terrorism and to what extent. Since the 9/11 attacks in the U.S. coupled with the various conflicts that have ensued in the Middle East and concerns over the world's oil supply has led to the importance of acknowledging the relationship between oil and terrorism. This study will attempt to determine how terrorism affects oil by analyzing existing research on the subject.

The cost of orchestrating a terrorist attack is relatively small. For instance, the March 2004 Madrid bombings cost approximately \$80,000 (Crane, 2015). For small level attacks such as these, oil plays a very little role and terrorists are able to finance these operations through their own resources and profits earned from criminal activity. On the other hand, though, groups like ISIS do require substantial amounts of money to fund their activities. Analyzing how they acquired these funds will be a focus of this paper.

As ISIS progressively gained more control of eastern Syria as well as northern and western Iraq over the course of 2014, massive areas of oil production and related infrastructure came into their possession. Based on their rapid growth, analysts believe that ISIS has generated large revenues from its control of oil productions.

## **1.6. Definition of Key Terms**

The primary independent variable that is used in this thesis is terrorism. According to the National Consortium for the Study of Terrorism and Responses to Terrorism ran by the University of Maryland, terrorism is defined as (2017, p. 9): “use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation. In order for an attack to be classified as terrorism, it must meet the following requirements:

1. *“The incident must be intentional – the result of a conscious calculation on the part of a perpetrator.”*
2. *“The incident must entail some level of violence or immediate threat of violence -including property violence, as well as violence against people.”*

3. *“The perpetrators of the incidents must be sub-national actors- This does not include acts of state terrorism (START, 2017, p. 9).”*

NATO defines terrorism as “the unlawful use or threatened use of force or violence against individuals or property in an attempt to coerce or intimidate governments or societies to achieve political, religious or ideological objectives (NATO, 2014).”

### **1.6.1. Concepts and Indicators**

The concepts that are being measured include the benefits of oil and oil related infrastructure as well as the growth of terrorist groups. The indicators are the monetary benefits of oil and the scale of attacks instigated by ISIS.

## **1.7. Thesis Structure**

This thesis will consist of the following parts: Introduction, Literature Review, Research Methodology, Results, lastly, Discussions and Conclusion. This thesis will be presented in the following manner: The current chapter began by first identifying and explaining the topic. The introduction section provided information on the context of the topic, addressed the research objectives, its significance and the overall aim of the research. It then delved into explaining the research questions and what this study aims to prove. The next chapter contains the literature review. The literature review will examine relevant literature on ISIS, AQAP and the role of oil in terrorism. It will also focus on defining and explaining the key concepts that are relevant in effectively testing the hypothesis of the research. As this thesis will be employing a literature-based research methodology, the literature review chapter will only provide a brief insight into existing literature.

Chapter three will consist of an explanation of the research methodology utilized and the analysis used to conduct this study and the theoretical framework. The last two sections- results, discussion and conclusion will detail all findings and how they relate to the research questions. A critical analysis of the findings and a summary of the results will be provided. The possible implications of the findings within this thesis and recommendations for future research will be included.



## **2. Literature Review**

### **2.1. Resources and Conflict**

Heightened attention to natural resources and conflict in the late 1990s. Resulted from data that after the Cold War's end the number of wars in nonhydrocarbon/nondiamond states decreased. In the same period, wars in hydrocarbon/diamond rich states became a growing fraction of the world's civil wars. Country case studies affirm that natural resource wealth is connected to violent conflict at the country level. Scholars often posit that "alternative causal mechanisms and complex interactions between resources, inequality, ethnicity, grievances, violence, and the actions of governments and extractive firms. They also tend to stress the importance of historical and sociological processes that are specific to the country or region" (Ross, 2006, p. 275).

Collectively, various studies imply that some version of the natural resource-civil war link is valid even if these studies cannot tell us whether it is valid cross-nationally. Scholars have proposed a multitude of theories as to the link between natural resource wealth and internal conflict. Some scholars argue that natural resource wealth can foster conflict by funding rebel groups and thus weakening state institutions (Fearon & Laitin, 2003). Others contend that it can make separatism financially attractive in resource-rich regions (Le Billion, 2005).

### **2.2. Oil and Militant Groups**

As this research is focused on understanding the relationship between oil and terrorism, this chapter will consist of a review of literature relevant to the topic. A critical review of the literature on oil's role in conflict will be presented, followed by a review of literature on oil's relationship with terrorism within the context of Syria and Iraq specifically. Lastly, an overview of the role that oil plays with ISIS and AQAP will be provided. As this thesis is utilizing a literature-based methodology, the research presented here will serve as a foundation for the analysis.

There are an array of articles, reports, journals and studies about terrorism and how it affects various other aspects of our life and the world. There are also articles that discuss the geopolitical relationship between oil and conflict, as well as some regarding oil and terrorism and specifically. Being

in possession of oil rich territory is a source of power and money. Anything that threatens or poses a potential negative effect to the security of that power will lead to a significant amount of discussion and analysis. When analyzing the relationship between conflict and natural resources, most scholars choose to compare the rates of political violence with that of the discovery of natural resources in the area as well as the political structure.

Conflicts revolving around the control of oil supplies have been a constant occurrence in international affairs since the beginning of the 20<sup>th</sup> Century. According to Michael Klare, (2005) “close connection between oil and conflict derives from two essential features of petroleum- its vital importance to the economy and military power of nations; and its irregular geographic distribution”. Oil is extremely important to the global economy due to its role as the world’s main source of primary energy. As oil plays such a significant role in the world’s economy, a continued shortage of its availability can lead to a worldwide economic recession. This was proven true in 1974 during the Arab Oil Embargo, in 1979 after the Iranian revolution and 1990 after the Iraqi invasion of Kuwait (Hamilton, 1996).

The exportation of petroleum is extremely lucrative, making it an important target for insurgent groups in oil rich countries. While in some regions, resource scarcity tends to fuel conflicts and aid insurgent, in relation to the Arabian Peninsula, it is more applicable to say that oil abundance contributes to conflicts. According to Collier & Hoeffler, (1998) oil exports in particular have a huge impact on the rise and success of insurgent groups.

Since the late 1990s, there has been heightened attention to the question of the relationship between natural resources and civil conflict. This was probably more than just a consequence of academic interests shifting after the collapse of the Soviet Union. There is some empirical evidence that intrastate wars in states rich in hydrocarbons or diamonds have been on the rise since the end of the superpower rivalry. Ross (2006) puts forward data that shows that after the Cold War’s end the number of wars in non-hydrocarbon/non-diamond states actually decreased, whilst, in the same period, wars in hydrocarbon/diamond rich states represent a growing fraction of the world’s civil wars.

Moving beyond cross-national investigations that demonstrate a correlation between natural resource wealth and civil war, there are many studies that have tried to determine the causal mechanism

that links this wealth to civil war. Ross in particular is critical of much of the scholarship that starts and ends with demonstrating a positive correlation between natural resource wealth and the propensity for the civil war. He has been vocal in calling for the more in-depth case studies to be performed to better understand the causal mechanisms that link natural resource wealth to civil war (Ross, 2004).

Heeding Ross's call, there have been many case studies and small comparative studies that have attempted to tease out the link between natural resources and the propensity for states to fall into civil war. Country case studies seem to affirm that natural resource wealth is connected to violent conflict at the country level. To be sure, different case studies, as Ross notes, "alternative causal mechanisms and complex interactions between resources, inequality, ethnicity, grievances, violence, and the actions of governments and extractive firms. (2006)" As a corollary of this, these scholars tend to stress the importance of the unique historical and cultural-social setting specific to the country or region under study. Even so, taken together they collectively imply that some version of the natural resource-civil war link is valid even if it cannot be inferred from each individual study whether the causal mechanism at play are valid cross-nationally.

When examining literature that focuses on exploring the connection between natural resources and civil war, the trend is for these literatures to fall within two categories. The first, following a political science theoretical framework, tends to focus on the link between natural resources and weak political institutions. The second, being more economics based, focuses on how the "resource curse" leads to high income inequality which therefore contributes to higher rates of rebellion and civil wars.

In his research on resources and rebels, Weinstein (2005) noted that an influx of rents from natural resources lead to bad government. States with natural resources often operate on a patronage system and are often made up of corrupt governments that reap the wealth generated from the natural resources for the elite instead of providing public goods services for the average citizen. Weinstein explains that these are the conditions where grievances are mostly formed. Unlike other natural resources, oil posed a more heightened risk of conflict due to its role as a primary commodity dependence in the Arabian Peninsula. Collier & Hoeffler surmise that "heavy reliance upon primary commodities is generally associated with large nontaxed income for the state or any organization that can control the territory on which the rents are generated" (2005, p. 625).

### **2.3. Existing Explanations for the Rise and Demise of ISIS**

Although Syria is not considered to be a major oil producer or exporter within the global oil market, pre-civil war, Syria produced approximately 400,000 barrels per day (b/d). From their eastern oilfields, they exported approximately 150,000 b/d. In 2010, an estimated 109,000 b/d was exported to Germany, Italy, France and the Netherlands (United States Energy Information Administration (EIA), 2011). These exports alone accounted for \$4.1 billion of the Syrian Government's revenue.

More related to this study's topic of oil and terrorism in Syria and Iraq, Almohamad and Dittman provide an analysis of the impact terrorism has had on oil in Syria. The focus of their research dealt "with the development of oil and gas production and the geographical distribution of fields, as well as production control, deterioration of production, refining and selling mechanisms, and the resulting health and environmental impacts following Islamic State's control of the majority of oilfields in Syria" (2016, p. 1). Though their research is aimed at understanding the health and environmental impacts of ISIS's control, it still provides a great deal amount of insights into oil's impact on terrorism and conflict. Their research analyzed data from other journal articles, reports and fieldwork, to study the trends of oil and gas production, as well as the control of natural resources by the active forces.

The article first delves into the nature of oil production and its revenue in Syria by establishing that "oil and gas is one of the most important components of the Syrian economy" (Almohamad & Dittmann, 2016, p. 1). As of 2017, Syria had 2.5 thousand million barrels of oil reserves as well as 10.6 trillion cubic feet of natural gas (BP, 2017). The authors point out that since its discovery, oil has been positioned as more of a burden to the Syrian people. For three decades, the Assad regime used its oil-generated revenue to purchase and build weapons. These weapons were then subsequently used against the Syria people at the onset of their Arab Spring uprising in 2011. Since the beginning of its civil war, the production of oil and gas has declined due to economic sanctions.

The ongoing conflict in Syria is currently fueled by multiple organized forces- the Syrian Army, the Syria Free Army, Alnusra Front, Kurdish Forces, ISIS and other smaller rebel groups that are fighting against the Syrian government. All of these groups have been fighting over territorial control and access to natural resources. Throughout this conflict, the ownership of the oilfields in east and

northeastern Syria has constantly changed hands. Each of these groups have been exploiting the oil to serve their individual goals. While Assad's government uses oil as fuel for military equipment and its revenue to pay soldiers, Kurdish Forces use oil to fund their military operations. ISIS uses oil revenue to finance their terrorist operations and establish their caliphate.

Currently, ISIS controls 80% of all oil and gas fields in Syria, Kurdish forces own 12% and Assad's regime has managed to only retain 8% (Almohamad & Dittmann, 2016). Although much of this thesis focuses on how oil has impacted terrorism, it is important to note how terrorism has impacted oil. From 2006-2010, Syria was producing approximately 400,000 barrels a day. This production though, has since steadily declined. Almohamad & Dittmann arrived at the conclusion that "military conflict, combined with economic sanctions, considerably slowed down average production" (Oil in Syria between Terrorism and Dictatorship, 2016). Overall, there has been a 97 percent decrease in oil production.

Not only has the production of oil declined due to sanctions and the focus being directed at conflict engagement, the ongoing conflict has brought about physical damage to the infrastructure necessary to support mass oil production. Throughout the course of this conflict, attacks on oil fields and oil infrastructure have been commonplace. Not only in Syria but throughout the Middle East, oil and facilities that involve petroleum exploration, production, refinement, and storage are often targets for terrorists as well as counterterrorism efforts.

The emergence of ISIS as a military force capable of capturing and controlling territory as well as its engagement in state-like military campaign, places it in a different category than other terrorist groups. Watkin (2014) explains that as ISIS is a non-state actor, deciding to attack its war sustaining assets, which in this case refers to oil fields and refineries, presents a unique circumstance. Since 2014, coalition forces led by the U.S. has attacked multiple "ISIS controlled modular oil refineries located in remote areas of eastern Syria" (United States Department of Defense, 2014). The rationale behind these attacks was that "these small-scale refineries provided fuel to run ISIS operations, money to finance their continued attacks throughout Iraq and Syria, and they are an economic access to support future operations" (United States Department of Defense, 2014). By attacking these facilities, coalition forces aim to deplete ISIS from its revenue generating facilities.

While these coalition strikes against refineries run by ISIS might present as a productive counterterrorism measure, they also negatively impact local communities. Not only do these strikes frequently lead to civilian casualties, they also result in improper micro-refineries being built. These micro-refineries are generally unsafe, hazardous and result in high pollution of the surrounding areas.

Overall, the findings of Almohamad & Dittmann's study make sense. As the Assad regime was very dictatorial, the misappropriation of funds and limited benefits to the average citizen from oil revenues is logical. It is also understandable that in situations of mass conflict, such as the Syrian Civil War, various groups, including insurgents, rebels, the government and third-party organizations like ISIS, will attempt to acquire as much control over natural resources to finance their operations. The study provides a thorough understanding of the history of oil in Syria, its evolution from nationalization to commercialization and the trends of oil production. It also provides decent insight into the deterioration of production during the civil war, and lastly a detailed breakdown of the control of Syrian oil and gas fields by the various groups.

However, the article provided a very minimal analysis on how exactly terrorism affected oil in the case of Syria and the relationship between the two variables. It does delve into how damage to oil infrastructure from fighting has led to a decline in oil production and how coalition airstrikes on refineries impact the local community and environment. As a whole, this study indicated that terrorism is capable of impacting and does impact oil. The findings though, do not represent how great of a bearing there actually is.

The basis of this thesis is that there is a relationship between oil and terrorism and that groups such as AQAP and ISIS exploit the relationship for their personal gain. As this chapter has already addressed the literature on oil and terrorism and Syria, it is important to also review literature about oil and terrorism in Iraq.

With 112 billion barrels of crude oil reserves, Iraq has the 2<sup>nd</sup> largest amount of oil in the world (Kumins, 2003). For the greater part of the last decade, Iraq has been embroiled in conflict. First the US invasion in 2003, followed by the failed US-led reconstruction efforts, and now, the domination by ISIS. These conflicts have negatively impacted Iraq's oil production. Prior to Iraq's invasion of Kuwait, the country's output reached 3.5 million barrels per day (Kumins, 2003). At the beginning of the U.S'

invasion, their output was approximately 1.8 million barrels per day. In Le Billion's "Corruption, Reconstruction, and Oil Governance in Iraq" article (2005), he examines the challenges of oil governance in Iraq.

With Iraq's excessive oil reserves, it has the potential to be a prosperous country. Le Billion highlights that Iraq, similar to other oil-dependent countries whose governments are fueled by authoritative regimes, political instability and conflict is very likely. He presents that the U.S. used these authoritarian tendencies as a justification to continue its presence in Iraq and ultimately gain uncontested access to Iraq's oil fields (Le Billion, 2005). After removing Saddam Hussein, the U.S.-led Coalition Provisional Authority embarked on their post-war reconstruction of Iraq. Over the years, "reconstruction has been slow, costs have spiraled above initial estimates, and early priorities were wrongly placed on large infrastructure projects awarded to a handful of US companies" (Le Billion, 2005, p. 686). As these reconstruction efforts have been deemed as failures by Iraqi citizens and resulted in very little economic benefits, they have led to resentment and contributed to violence and conflict. Le Billion's article assesses that as oil is "a key asset for the country, the oil sector has proved a vulnerable economic target for insurgents opposing the US" (2005, p. 687). These insurgent groups are able to create massive disruption in the flow of oil and halt the repairs of its infrastructure.

#### **2.4. How This Research Builds Upon the Literature**

The increased attention on the relationship between natural resources and conflict has led to various studies and research. As the literatures reviewed in this chapter show, much has been done in attempting to explain how natural resources can lead to or exacerbate conflicts. These established studies have explained that within conflict, oil is used beneficially on the part of the perpetrators but leaving a negative impact on others. Although there are existing reports that detail the rise of ISIS, there is not a study that seeks to explain the direct relationship between oil and ISIS and the overall effect that oil assets have had on the growth and operation of ISIS. Supported by the methodology used, this study builds upon existing literature by taking from what has already been established and applying it a different case study.

### 3. Research Methodology

#### 3.1. Methodology Overview

The following chapter outlines the methodology utilized in this thesis to assess and understand the relationship between oil and terrorism as well as the role of oil in the funding and rise of groups such as ISIS and AQAP. This thesis will be conducted by utilizing a literature-based methodology with a qualitative analysis. As mentioned previously, there are only limited studies available that analyze and discuss the complex relationship between oil and terrorism. There are multiple studies that are focused on terrorism's impact on oil rents and the security risk that are posed towards the oil industry. Furthermore, a significant amount of terrorism and oil related research are government-initiated studies that are geared towards policy development and justifications, therefore having an implicit bias. Along with this, acquiring statistical information regarding oil and terrorism is not easy to collect due to the somewhat sensitive and possible classified nature of the data. In regards to the broader topic of oil and terrorism, this thesis consulted an array of literatures that discuss oil's role in terrorism as well as those that though the study was not entirely focused on the subject, still addressed it. The majority of literatures used to assess oil's role in the financing and growth of ISIS were in the form of 'working papers' and supplemented by news articles.

This study applies several of the most common causal mechanisms that are used to explain the relationship between natural resources and conflict and in turn applies them to the case of ISIS. They are:

1. *“Resource wealth encourages national conflicts by increasing the value of the state as a target. Competition to capture the state (Fearon J. D., 2005).”*
2. *“Resource wealth increases the value of sovereignty in resource rich regions. Motivates separatist movements by increasing the perceived benefits of sovereignty (Collier & Hoeffler, The Political Economy of Secession, 2002).”*



3. *“Resource wealth helps fund rebel organizations. Natural resources produce rents and cannot easily be relocated like industry. Even if rebels cannot extract or market the resources by themselves, they can extort the money from those that can.”*

A causal mechanism is the process or pathway that leads to the existence of an outcome. When analyzing and comparing various scenarios, political scientists have primarily agreed that causal mechanisms are integral to understanding the reasons behind circumstances. These three causal mechanisms provide a beginning framework and additional insight into answering the established research questions. When applied to the subject of oil and conflict, the first causal mechanism asserts that resource wealth increases the value of a state due to the assumed income-generating capabilities. This increased value then leads to the encouragement of conflict over control and access to these resources. While all of these mechanisms do provide a relevant framework for this, the 3<sup>rd</sup> in particular applies when discussing ISIS. Through the analysis of existing literature, this thesis will present information that details how resource wealth funds rebel organizations.

### **3.2. Research Questions and Hypothesis**

This thesis aims to answer the following questions:

1. *How do oil rents and oil infrastructures affect the operations of ISIS & AQAP?*
2. *To what extent has oil been a factor in the growth and development of ISIS & AQAP?*

The primary hypotheses that I will be aiming to test the validity of are:

1. **H<sub>1</sub>:** *Oil rents and oil infrastructure have exponentially contributed to the growth of ISIS and AQAP.*
2. **H<sub>2</sub>:** *Acquiring oil-rich land is more attractive for terrorist groups than those without oil.*
3. **H<sub>3</sub>:** *ISIS has been able to retain large amounts of revenue due to their acquisition of oil-bearing properties.*

### **3.3. Research Design**

This research will utilize relational questions. A relational study explores how individual items are related to one another. I will be examining how oil and terrorism are connected. By employing relational questions this study seeks to understand the dynamics between oil and terrorism and more specifically, between oil and terrorist organizations such as ISIS.

To answer the established research questions, this research will be conducted by utilizing a literature-based research methodology. A literature-based research methodology consists of thoroughly reading, sorting and analyzing literatures in order to identify essential information related to the subject being discussed. The primary difference between this methodology and other forms is that there are no direct interactions with the subject being studied. Instead, I will be indirectly accessing information from an array of existing literature. Within this literature-based research methodology, I will be utilizing a non-structured qualitative analysis to process the information and merge the different perspectives that are presented.

In designing a research project with this method, existing literature is the source for sampling, data collection, data analysis and ethics. “A literature research methodology is to read through, analyze and sort literatures in order to identify the essential attribute of materials (Lin, 2009)”. In utilizing this methodology, it is necessary to identify the manner in which I have collected, analyzed and interpreted the data being used. The key behind this is to apply a theoretical framework that will address the research questions by employing the existing literature. When designing this research, it was important to take into account that though this thesis seeks to understand the relationship between oil and terrorism, there is a specific focus on ISIS. With this in mind, it is important to have a regional focus. For this thesis, the focus is set around Iraq and Syria. These two nations were selected due to their central role in the evolution and current operations of ISIS.

Although utilizing secondary data can be a flexible approach, it is an empirical process that consists of procedural steps, similar to the collection and evaluation of primary data. The first step in this process is identifying the literatures that will be used. This thesis will use information from studies that are focused on oil and terrorism’s relationship in the two countries as well as oil and general

conflict. To ensure that a thorough view of ISIS is taken into account and presented, the literatures used will cover a time period from 2000-2018. This will also permit for the inclusion of literature conducted at the onset of the Iraq War and the Syrian Civil War, both of which commenced prior to ISIS's rapid emergence. It is widely agreed that the two events contribute significantly to ISIS's rise and current hold onto power. Overall, this time period will provide for the most comprehensive data that corresponds with, terrorism and ISIS.

To complete this thesis, sources from books, working papers and journals were used. With the case of ISIS being extremely sensationalized, a wealth of information can also be sourced from periodicals. While certain figures were extracted from these, to ensure that the sources in this research are peer reviewed and thorough, news articles will not be used. When selecting sources, there were three main factors were considered:

1. *How much of the literature's focus is aligned with this topic?*
2. *How did the researcher acquire the data used to arrive to his/her findings?*
3. *How do the findings relate to this thesis and its research aims?*

To acquire the relevant literature that will be used, search engines and research databases were utilized. The majority of the research analyzed was found through the use of Google Scholar.

### **3.4. Concepts and Indicators**

The concepts that are being measured include the benefits of oil and oil related infrastructure as well as the growth of terrorist groups. The indicators are the monetary benefits of oil and the scale of attacks instigated by ISIS.

### **3.5. Data Collection**

In this chapter, I will discuss the research design, how the literatures used were selected; as well as the methods of analysis, limitations and any ethical concerns. The aim is to establish the framework that I will be employing to answer my main research question of "How oil and oil infrastructure affect the

operations of ISIS and to what extent has oil been a factor in the growth and development of ISIS?” As previously stated, the base approach of this study is a literature-based methodology. While a quantitative research could have been conducted, the forms of data that are accessible are much more suited for a literature-based research. A primary qualitative study would not be feasible due to the nature of the research.

As with all research, a review of the literature is important because without this review, acquiring an adequate understanding of the topic at hand would be difficult. With this methodology, the standard literature review is taken a step further. With using literature as a methodology, a comprehensive and systematic analysis is conducted. The findings and conclusions in the literatures used are synthesized and analyzed to become the findings of the new research. Researching with this method provides the opportunity to close the gap and connect relevant literatures on the topic.

A qualitative analysis of the identified literatures will be conducted. Qualitative analysis allows for the classification of the information contained in the literatures and arriving at a conclusion. By analyzing qualitatively, I will be able to identify certain causal relationships. This form of an analysis compares the different verbiage through logical reasoning.

### **3.6. Data Analysis and Thesis Structure**

The majority of sources and data used for this study were gathered through the use of Google Scholar and clear search terms. Academic databases such as JSTOR and SAGE were also used. The original search terms used were “ISIS, OIL”, the search window was then limited to peer reviewed sources and journal articles. After analyzing relevant sources that this search produced, I used the sources listed within the studies and articles to identify other literatures and data. Other search combinations that were used were “AQAP, FINACNING, OIL”, “OIL, TERRORISM, EFFECT”, ‘OIL, SYRIA, TERRORISM’, and ISIS, OIL, IRAQ”.

### **3.7. Validity, Reliability and Generalizability of the Findings**

The primary limitation of this literature-based study is that the available amounts of literature that can be consulted to answer the established research questions are quite restricted. While there is an ample

amount of literature focused on explaining and analyzing the dynamics of terrorist groups like Al-Qaeda and ISIS, as well as literature on terrorism's effect on oil rents and the global oil supply, there is not a lot of literature that combines the two and further explains the correlation and phenomenon.

Another limitation of this study rests in the chosen methodology itself. As there will be limited used of primary data being analyzed but instead, predominantly secondary sources, the methodologies and data of these individual researches will be transposed to this study. This means that the limitations that were involved in the secondary sources will have an effect on my findings and overall research.

### **3.7.1. Validity**

For this research, validity refers to the appropriateness of the tools, data and processes that are being utilized. This involves acknowledging whether the research question is appropriate for the desired outcome and if the design is valid for the methodology. As this research used a research-question driven approach, analyzing existing literature and secondary data that is focused on ISIS and its funding will contribute to assessing the relationship between oil, oil infrastructure and ISIS. Based on a thorough analysis, the results of this study are valid.

### **3.7.2. Reliability**

The reliability of a study assesses whether or not the results of a study will be consistent when replicated. By operating within strict guidelines for the sources used for data analysis, there is little error for lack of reliability. As the sources used in this study addressed the relevant discussions about the development and funding of ISIS, the reliability of the research is secure. The use of secondary data also contributes to the strength of the reliability of this research.

### **3.7.3. Generalizability**

This research involves the study of a specific phenomenon within a particular region and a subset of a religious population. As the focus of this research is very unique and within a particular context, it would be difficult to apply this framework towards a broader population. However, it is possible for a

similar study to be conducted with a focus on other non-state armed groups and their utilization of natural resources within their acquired territory.

## **4. Results**

### **4.1 Introduction of Results**

This chapter will introduce the results of my literature-based study, as detailed in the previous chapter. I will present the results as they pertain to each of my research questions. As the aim of this study is to understand the relationship between oil and terrorism, key works of existing literature were reviewed and analyzed. This chapter will detail these findings regarding oil's role within ISIS and AQAP and how ISIS factors in oil infrastructure.

The key findings of these results are that oil rents and oil infrastructure do significantly affect the operations of ISIS and AQAP and that oil has been a factor in the growth and development of ISIS. The first task is to discuss the finding as they relate to my hypotheses stated earlier. As the qualitative results in this chapter will showcase, my primary hypothesis that oil rents and oil infrastructure exponentially contributed to the growth of ISIS was proven correct. However, while the literatures that were analyzed do provide evidence of ISIS's desire for oil-rich lands the same assumption cannot be made of other terrorist groups. This leads to my second hypothesis being only partially correct.

### **4.2 How Oil Rents and Oil Infrastructure affect the Operations of ISIS and AQAP?**

#### **4.2.1. Al-Qaeda in the Arabian Peninsula**

With the speed and manner in which ISIS emerged and rose, there has been numerous speculations into the source of their finances. The vast majority of these speculations have pinpointed to two things-oil and oil infrastructure. As oil is one of the major resources in the Arabian Peninsula, it plays a significant role in the existence of terrorist groups. For these groups, the political and economic reasons for exploiting oil resources are plentiful. One of the causal mechanisms that this thesis uses to understand the relationship between natural resources and oil states that "resource wealth encourages national conflicts by increasing the value of the state as a target".

Due to the exclusive dependency that many of the countries in the Arabian Peninsula have on oil revenue, these countries can be destabilized through attacks upon their oil infrastructure. For the most part, the relationship between oil and terrorist groups has primarily consisted of two components. The first is groups attacking oil targets as a way of creating an upset in the global oil supply and to send a message to western governments that profit off of oil. The second is groups gaining funding from wealthy donors whose income is primarily from oil wealth.

AQAP is one group whose relationship with oil has followed these two patterns. AQAP's relationship with oil has not been centered on profit. Instead, AQAP has mainly utilized oil as a supplemental tool to spread their message. Saudi Arabia has been a major example of an oil-rich country that has been a significant target of AQAP. Along with the fact that a significant portion of AQAP's membership comes from Saudi Arabia, David Cook explains that "the close Western involvement in the Kingdom is a symbol of what is considered to be exploitation of Muslim resources" (2008, p. 5). In 1996, Osama Bin Laden, then leader of Al-Qaeda declares his intention to destroy the economy of the United States as a means to drive them out of the Middle East (Johnson, 2008). Though originally, this was limited to attacking Western employees in the region, the group later began carrying out attacks against oil industries in the region. In 2004, AQAP began executing attacks on oil industry targets in Saudi Arabia. On May 1<sup>st</sup>, they attacked a plant in Yanbue and on May 29<sup>th</sup>, they perpetrated an attack on two oil industry installations (Cook, 2008). They continued these strikes with their first significant direct target on Saudi oil infrastructure in February 2006. However, the AQAP operatives were thwarted. If they had been successful, the attack would have had devastating economic consequences as this plant was the world's largest refinery.

Along with Saudi Arabia, AQAP has also attempted attacks on pipelines in Yemen. In September 2006, Yemen security forces stopped two suicide bombing attacks on oil targets within Yemen. AQAP claimed responsibility and vowed to do more. Another attack was thwarted in June 2007. Finally, in November 2007, they successfully blew up a section of an oil pipeline in Marib province (Johnson, 2008).

Overall though, these attacks have not been beneficial nor have they contributed to the growth of AQAP. For the most part, their attacks have been unsuccessful in accomplishing their mission to weaken the global oil supply and bring down the economy of Western governments. However, they have left a small negative impact on the oil industry. Due to their acts of “petro-terrorism”, there has been a minor inflation of the price of oil per barrel from \$2 to \$10 (Johnson, 2008). This terror premium is a result of increased security costs, repairs on infrastructure.

In the Spring of 2011, AQAP captured territory in Yemen for the first time (Fanusie & Entz, 2017a). During the chaos of the Arab Spring and the ensuing Civil War in Yemen, they captured the large port city of Mukalla in April 2015. In 2016, Saudi and UAE forces, along with Yemen troops recaptured the province.

Although AQAP does not own oil producing territory, the group does somewhat benefit financially from oil and has attempted to reap a significant amount of revenue through oil sales. The group primarily earns revenue from oil through taxation. After capturing Mukalla and controlling the city, as well as most of the surrounding Hadramawt Governate, AQAP lacked the resources to fund the area’s local government (Riedel, 2015) and continue retaining local support. Therefore in 2015, AQAP “tacked on extra charges to fuel sales and imports as a way to secure a source of revenue (Amr, 2015)”. During AQAP’s control in Mukalla, tribes that cooperated with them held most of the control of Yemen’s oil infrastructure.

Following AQAP’s acquisition of Mukalla, international oil companies that previously operated within the area chose to halt production and abandon the oil fields, limiting AQAP’s ability to earn revenue. In turn, from 2015-2016, AQAP earned income through the taxation of all fuel imported through Mukalla and then smuggled throughout Yemen (Fanusie & Entz, 2017a). Later in 2016, AQAP aimed to secure a profit sharing agreement with the Yemeni government. Through this agreement, AQAP would be permitted to export oil with the government’s permission and receive a quarter of the profits while the government would receive three-quarters. The Yemeni government rejected that plan. With AQAP’s control of Mukalla, the group was in possession of 2 million barrels of oil. Unfortunately, though, with the Yemeni government not signing the agreement, they were unable to export the barrels (Fanusie & Entz, 2017a).



#### 4.2.2. The Islamic State of Iraq and Syria

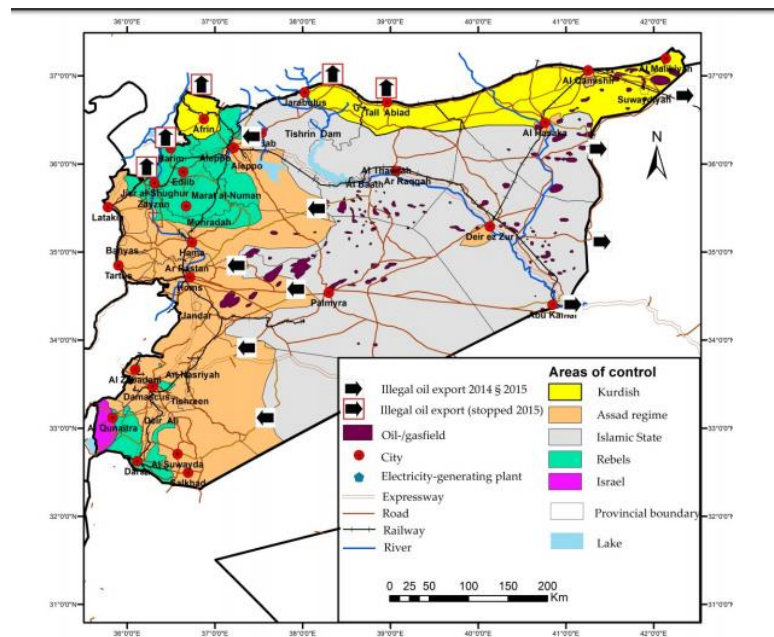


Figure 4.1. Geographical distribution of the control of Syrian oil and gas fields by forces and illegal export (Almohamad & Dittmann, 2016).

When discussing ISIS’s seemingly instant ascension to power, as well as their ability to carry out attacks with the equipment similar to a country’s military apparatus, the amount of financing in ISIS’s possession as well as the source of their financing is a central topic.

As ISIS swiftly moved across Eastern Syria in 2013 and early 2014, they quickly began to seize major Syrian oil fields. By 2016, ISIS held 80% of all oil and gas fields in Syria, and the rest being held primarily by Kurdish Forces and the Syrian Government. They control the major oil fields in Deir ez Zor province including Ward, Tank, Taim and Omar-an oil field that produces the best quality of extracted oil in Syria (Almohamad & Dittmann, 2016). Within the Hassaka province, ISIS controls the oil fields in the south, including Margada, Al-Jubaissam, Gouna Tishmen and Al-Hol. In Raqqa, as well as in central Syria, they are in control of an array of small oilfields. The majority of oil fields within ISIS’s control produce decent quality crude oil. Prior to the Syrian Civil War, these oilfields produced approximately 250,000 b/d, accounting for 65% of Syria’s oil production (Almohamad & Dittmann, 2016). The oilfields in the Dier ez Zor province remain their primary source for oil revenue. While ISIS

has been successful in extracting oil from these oil fields, the vast majority of these fields are downtrodden and the group lacks the knowledge, technology and equipment needed to maintain them.

Province	Field	Production (b/d)
Deir ez Zor	Omar	15,000
	Tank	7000
	Jafra	3000
	Al Kharrata	1000
	Derro	500
	Ward, Ahmer, Akash, and Ratka	7000
	Atallah	500
	Tayyani, Maleh, Sijan, and Azraq	12,000
	Thayyem	700
	Other fields	1000
	Hasaka	Margada
Al Jubaissah		3500
Gouna		1000
Tishreen		2000
Raqq	Wahab, Habbari, Deilla, and Fadeh	2000
Homs	Jazal-Heil	2500
		61,700

Figure 4.2. ISIS Oil Production in 2015 (Almohamad & Dittmann, 2016)

In June 2014, the group secured their first major Iraqi oil prize near the city of Mosul when they seized the small Qayyarah refinery and associated oil wells (Gallucci, 2014a). After seizing Mosul, ISIS marched south down the Tigris River Valley (TRV) halting half way towards Baghdad at Baiji in order to take control of the huge refinery on city's outskirts. Baiji Refinery is Iraq's largest and has the capacity to refine 310,000 b/d of crude oil. It is unlikely that ISIS thought they could have operated the facility or even coerced the refinery workers to keep it operational. In any event, the refinery's workforce had fled or were evacuated and operations stopped in July 2014. It is likely that ISIS wanted to deny the infrastructure to the Iraqi government, thus depriving it of key refining capability and diminishing its revenues. Arguably a similar tactic was employed against the Iraq-Turkey pipeline, one of Iraq's two main export routes for oil, which ISIS attacked repeatedly over this period. Indeed, Iraqi use of this key pipeline was halted as far back as March 2014 for repairs after periodic bomb attacks (Galluci, 2014a)

Such complex infrastructure was arguably not seen by ISIS leadership as valuable compared to oil fields where lower levels of technical expertise is generally needed to extract crude and sell this

unrefined black gold on the black market. As an indication as to the validity of this argument, after Baiji, ISIS pushed further south along the TRV to Tikrit where they seized four oil fields (Gallucci, 2014b), including Ajeel, one of the area's most productive. By August, they also succeeded in capturing oil fields in the predominately Kurdish region – Ain Zalah and West Batma. This was the apogee of ISIS's control of Iraq oil fields and infrastructure.

The situations detailed above clearly indicate how ISIS's quick rise to power was related to their decision to place oil concerns front and center in the organizations strategy and operational planning. The well thought out plan to acquire these oil fields in a fully functional state as opposed to destroying them showcases ISIS's recognition of the importance of oil assets as a sustainable and reliable source of revenue. For a significant amount of time, ISIS was considered to be the richest terrorist organization in the world. With a weekly oil revenue of up to \$28 million from 2014-2015, analysts labeled the territory under the group's control as its "largest potential source of revenue flow" (World Bank Development Research Group, 2017, p. 2). From July-December 2014, production in ISIS controlled territory reached 56,000 b/d. This amount later declined to 35,000 b/d in 2015 and 16,000 b/d in 2016 (World Bank Development Research Group, 2017). At the onset of ISIS's oil production, they were yielding an income of up to \$3 million per day from oil. After the launch of the US-led coalition air strikes on ISIS-held territory, their oil-based revenues significantly reduced to approximately \$2 million a week. These campaigns have been effective in disrupting ISIS's extraction of crude oil. It is important to note that all figures of ISIS's oil production and revenue are estimates.

By the end of 2014, ISIS had strengthened its hold over oil supplies in Iraq and essentially supervised a vast smuggling operation. To date though, ISIS has been pushed back in some parts of northeastern Iraq by Kurdish forces and US airstrikes (Gallucci, 2014b) but they still control important infrastructure as well as the transportation means to sell the oil outside of Iraq's borders to foreign buyers. In 2014, unconfirmed reporting pointed towards Turkey, Jordan and Iran as the export markets for this smuggled illegal commodity (Hawramy, Mohammed, & Harding, 2014). They reportedly earned millions of US dollars a week from this activity.

By controlling large areas in eastern Syria as well as northern and western Iraq, ISIS has positioned themselves to control these oilfields that allow for the extraction of oil for their personal use.

However, ISIS is able to acquire large sums of revenue from oil by refining and selling in local and regional markets. Due to international sanctions, purchasing oil from ISIS is technically illegal. As a result, ISIS is forced to sell their oil at a rate significantly lower than the global oil price. In 2014, it was estimated that ISIS sold oil for \$25-\$45 per barrel. According to Stephens (2014): “Some of this goes to Kurdish middlemen up towards Turkey, some goes for domestic IS consumption and some goes to the Assad Regime [Syrian Government], which in turn sells weapons back to the group.”

### How Isis hijacked oil leaves Iraq



Figure 4.3. ISIS Oil Transport Route (Hawramy, Mohammed, & Harding, 2014)

As of 2016, ISIS oil sales to the Syrian Government accounted for 10,000-12,000 b/d. ISIS’s oil is also consumed in rebel areas. As these areas do not contain any oil wells and due to the prohibition of oil delivery to the areas by the Syrian Government, they suffered from a fuel crisis. ISIS has taken

advantage of this crisis and transports diesel and gasoline to the area. As this is their only source of fuel, ISIS capitalizes on it by selling diesel for \$80-\$190 per barrel and gasoline for \$120-\$130 per barrel, significantly higher than the global oil price (Almohamad & Dittmann, 2016). Sales to rebel areas accounted for 6000-8000 barrels/d. Along with the Syrian Government and rebel areas, Turkey, Iraq and Iran are the primary consumers of ISIS oil. In 2014, when ISIS production was at its highest, 25,000 barrels of oil were smuggled into Turkey a day. For the last three years, the Turkish government has significant cracked down on the smuggling of ISIS oil. Since the beginning of US-led coalition airstrikes, ISIS's stronghold on territory has diminished and as a result, so as their profit margins.

#### **4.3 To What Extent Has Oil Been a Factor in Growth and Development of ISIS**

Since 2014, US-led coalition forces have been engaging in airstrikes on ISIS's revenue generating facilities (Watkin, 2014). Initially, airstrikes carried out by the anti-ISIS coalition in 2014 and early 2015 only marginally hampered ISIS's oil production, refining and smuggling activities. The negative impacts of these airstrikes towards ISIS were arguably minimal. Though ISIS-held fields were regularly hit by coalition strikes, they were able to keep the oil flowing. They were able to achieve this by resorting to crueller extraction methods (see Figure 4 below). They also utilized the skills of local unemployed oil workers who were desperate for money (Soloman, 2017).



*Figure 4.4. Makeshift Refinery in Northwestern Syria (Soloman, 2017)*

ISIS's expansive revenues were primarily only really affected once territory – and especially oil-bearing territory – was taken back from their control. In northern Iraq, ISIS began to lose some of their acquired territory to Iraqi Kurdish forces (aka the Peshmerga) in 2015, but the roll-back of ISIS really gathered steam in late 2016 and 2017. Although ISIS oil is a significant stream of revenue for ISIS, it is important to note that their income is diversified. The majority of income that the group receives comes from the taxing of the population within their territory. The damages to their oil infrastructure, along with losing territory proved to be a double loss for ISIS.

According to one informed estimate, between mid-2015 and early 2016 it fell from \$81 million a month to about \$56 million a month. By June 2017, it was estimated that revenues were down 80% than what they had been in mid-2015 – that is, from \$81 million a month to \$16 million per month. Over the same period, ISIS lost two thirds of its territory (Francis, 2017). According to Francis (2017): “Revenue is down across all of the terror group’s income streams: taxation of the people under its control, confiscation of goods, oil smuggling and production, and trade in illegal antiquities.”

As for oil, a report by London-based information and analytics company IHS Markit (2017) estimated that monthly oil revenue were down 88 percent from mid-2015 levels. “Territorial losses are the main factor contributing to the Islamic State’s loss of revenue,” said Ludovico Carlino, senior Middle East analyst at IHS Markit (2017). Moreover, he goes on to argue: “Losing control of the heavily populated Iraqi city of Mosul, and oil rich areas in the Syrian provinces of Raqqa and Homs, has had a particularly significant impact on the group’s ability to generate revenue” (2017).

Throughout 2017, ISIS faced numerous pressures. The U.S.-backed Syrian Democratic Forces (SDF) advanced into the outskirts of Raqqa, while the Syrian Government moved east towards Deir ez Zour. In Iraq, government forces and Iran-backed militias overtook Mosul and were on the verge of ridding the country of the last remaining strongholds of ISIS in Hawija, Tal Afar and al-Qaim. By the summer of 2017, Mosul was completely back in the control of the Iraqi Government. In Syria, government forces, with support from Russia, were pushing the group into its eastern Syrian enclaves, and US-backed Syrian Kurdish forces were on the verge of pushing out the group from its named capital, Raqqa in northern Syria.



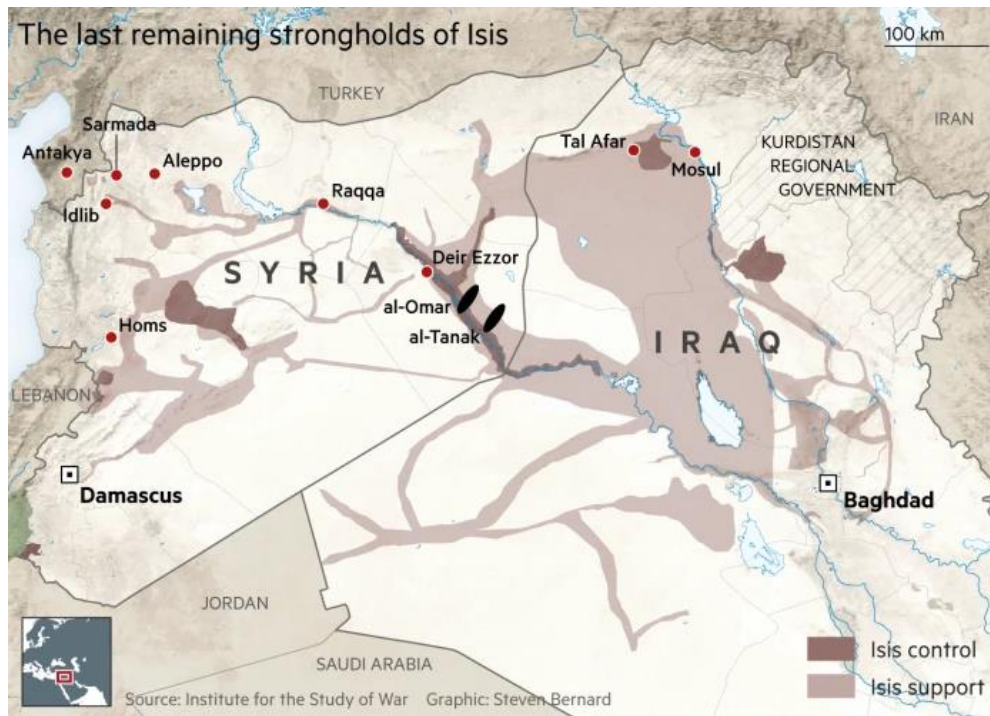


Figure 4.5.: The last remaining strongholds of ISIS c. Aug 2017

#### 4.4 Sources of Financing

The primary aim of this thesis is to understand the relationship between oil and terrorism. As the previous sections have established, both groups engaged with oil and oil infrastructure in different ways. When examining the reason behind terrorist groups and their relation with oil, money is generally the culprit. Although both AQAP and ISIS have employed oil in various ways, they have both attempted to earn revenue from oil.

According to analysts, the costs of orchestrating a terrorist attack are small. For the most part, oil rents play a very minor role in perpetrating terrorist attacks (Crane, 2015). However, insurgent groups like ISIS and AQAP require a substantial amount of financial resources to fund their operations and activities. As of 2014, ISIS had an estimated 31,000-foot soldiers and a total of 80,000 members (Bahney, et al., 2013). As these members are full time, ISIS members are paid a salary. The group must also pay for weapons, fuels, vehicles, repairs, ammunition, security and intelligence operatives. As ISIS controls an expansive amount of territory with a large population, they were responsible for maintaining schools and providing some semblance of health care. It is estimated that ISIS members are paid approximately \$400 a month. With a group of over 80,000 ISIS is spending \$384 million annually. In

January 2015, ISIS monthly expenses within the Deir ez- Zour province in Syria alone totaled \$5.6 million, approximately \$70 million annually.

In 2016, ISIS's revenue reached hundreds of millions of dollars. A substantial portion of their income is derived from controlling land. Along with controlling land their main funding sources are oil and gas sales taxes and extorting, smuggling and cash stolen from banks (Fanusie & Entz, 2017b). They have also derived a decent amount through kidnapping for ransom. As they continue to lose territory, which results in depleted oil, gas and tax revenue, ISIS has needed to cut back on salaries and administrative costs.

According to reports by the U.S. Senate Committee on Energy and Natural Resources, wide variances have been noted in estimating ISIS's daily oil production (2014). "It is likely that no one- probably not even ISIS- knows exactly how much oil ISIS is producing, how much it is selling and how much revenue this activity is generating" (U.S. Senate Committee on Energy & Natural Resources, 2014, p. 1). In 2015, the U.S. treasury calculated ISIS's oil and gas revenue at \$500 million, all coming from the ownership of 160 oil fields in Syria (Fanusie & Entz, 2017b). The primary explanation for the variance in oil revenue is a result in the lack of knowledge about ISIS's level of oil production and the exact price per barrel of oil in ISIS territory. As of 2017, oil and gas sales to Assad's regime constituted ISIS's largest source of income (Fanusie & Entz, 2017b).

Along with the sale of natural resources, ISIS has exploited the local population within the territories they control through the implementation of taxes on trade and income. In 2014, the group amassed approximately \$600 million dollars in revenue from taxes and extortion in Iraq. The budget for the Deir ez-Zour province in January of 2015 indicated that taxes constituted 68 percent of the group's income. ISIS's main form of taxation is through taxing the salaries of Iraqi government officials (Fanusie & Entz, Islamic State Financial Assessment, 2017). ISIS also levies a 10-15 percent business tax, as well as a two percent local sales tax, five percent on cash withdrawals from banks and 10-35 percent on medical. In conjunction with these taxes, they've imposed a 2.5 percent tax on wealthy residents and businesses. Through extortion tactics, the group is able to acquire even more revenue.



While AQAP is also a relatively large insurgent group, their ranks are not as large as ISIS and therefore, neither are their expenses. It is estimated that their yearly expenditure, excluding the cost of maintaining and administering territory, is approximately \$10 million (Fanusie & Entz, 2017a). As of 2016, senior fighters for AQAP made \$1100. Most fighters made \$200 per month. Houthi fighters were paid \$200-\$300 per month and Yemeni soldiers were paid \$140-\$150 per month (Al-Batati & Youssef, 2016). Aside from compensating their members, the group has an array of other expenses. Although AQAP does not engage in any direct governance, they still put forward efforts to imbed and ingratiate themselves within the local communities. This is generally done in the form of financing social services and local infrastructure development. For example, in 2011, after successfully capturing territory, AQAP “provided water, electricity and food” (Craig, 2012). They also established sharia courts for judicial rule and order, provided education services, and compensation for damage incurred to local infrastructure by U.S. airstrikes. It is estimated that the administration of all of AQAP’s territories combined cost approximately \$20 million a year. AQAP has also been known to pay compensation to families of civilians that they’ve killed as well as to families of those killed by U.S. drone attacks (Fanusie & Entz, 2017a).

Going along with their community engagement efforts, AQAP also built and maintained water wells within these territories and paid for those who needed to travel for medical treatment. In 2015, after capturing Mukalla, AQAP provided \$3.7 million to the city council to finance the governing of the city in the form of salaries for city officials as well as “basic services, such as drinking water, electricity and fuel” (Amr, 2015). They also distributed food, medical supplies and produced community moral events.

As Al-Qaeda Core and AQAP’s terrorist network involves various offshoots around the globe, an essential part of AQAP’s finances consists of financing and providing assistance in the form of weapons to allying groups. In 2009 and 2010, not only did AQAP provide soldiers to Al-Shabab, they also sent weapons (Fanusie & Entz, 2017a).

With such large and varying expenses, both ISIS and AQAP must consistently acquire revenue. In order to do this an extensive financial portfolio is necessary. As the previous sections within this chapter have stated and explained, both groups have managed to profit from oil and oil infrastructure

in some way. For ISIS, producing and engaging in the direct sale of oil has contributed extensively to their financial portfolio. For AQAP, their small-scale taxing and smuggling of oil has also contributed to their ability to finance their operations.

The key components of AQAP's funding are oil and gas sales, taxation and extortion, smuggling and trafficking, looting, kidnapping for ransom and cash from banking systems and cash reserves (Fanusie & Entz, 2017a). To fully grasp the extent that oil and oil infrastructure have impacted these insurgent groups, it is necessary to learn about the other sources of their funding. For the most part, AQAP's use of taxation was primarily used as a means to acquire the support of locals, not to gain revenue. However, they do make up for this through the extortion of major companies. In 2011, after capturing several towns, one of their first acts was to abolish individual income taxes (Zimmerman, 2015). As income taxes ranged from 10 to 20 percent the abolishment of taxes provided great relief for the already struggling community. In 2016, they used the same tactic in Mukalla and also abolished income taxes for the citizen population of 400,000. Although they abolished individual taxes, the corporate taxes that were in place remained at 20 percent. Abolishing individual taxes though does not generate income and actually does the opposite. To make up for this they resorted to the taxation of goods and extortion. From 2015-2016, AQAP earned up to \$2 million every day in taxes on and fuel and goods that came into Mukalla. There are some accounts that place their daily revenue as high as \$5 million a day from the custom duties and smuggling of fuel (Bayoumy, Browning, & Ghobari, 2016). In 2016, they taxed all ships that came into the port in Mukalla. In 2012, they began charging tolls at various checkpoints within their territories. According to Yemeni government officials, the group extorted \$1.4 million from a national oil company (Bayoumy, Browning, & Ghobari, 2016).

Along with taxing and extortion, AQAP engages in smuggling and trafficking. Smuggling and trafficking are not unusual ways for terrorist groups to finance their operations. According to the U.S. State Department, AQAP's control over Mukalla and much of the Yemeni coast "made these areas highly vulnerable to maritime smuggling of weapons, materials and goods used to finance themselves (2015). AQAP leveraged their control of territory to smuggle fuel throughout Yemen. They've also been known to engage in human trafficking and creating "marriage" tents where local women are forced to marry their soldiers.

When it comes to identifying AQAP's most profitable source of revenue, kidnapping for ransom is the culprit. In 2012, Nasir Al-Wuhashi, still in his role as emir of AQAP sent a letter to the head of Al-Qaeda in the Islamic Maghreb, he stated "most of the battle costs, if not all, were paid from through the spoils. Almost half the spoils came from hostages. Kidnapping hostages is an easy spoil, which I may describe as a profitable trade and a precious treasure" (Al-Wuhayshi, 2012).

In 2011-2013, funds from ransoms constituted their largest source of funding. In 2013, U.S. officials also agreed that kidnapping for ransom was AQAP's main source of financing. These hostages were generally acquired through agreements with Yemeni tribal leaders whose tribes have formed relationships with AQAP. These tribal leaders provide hostages to AQAP for a small fee. In 2011, AQAP received \$9 million for three French nationals from the French government and \$20.4 million in 2012-2013 for the release of four Europeans through Oman and Qatar. According to the Yemeni government ransoms paid to AQAP by foreign governments have significantly contributed to the revitalization of the group (Fanusie & Entz, 2017a). These officials are of the opinion that in 2014, AQAP was in massive financial trouble that led to AQAP militants needing to sell their guns. The group was able to recover due to the money earned from kidnapping by ransom. These ransom payments encourage the militants who work on commission for Al-Qaeda to continue kidnapping foreigners in Yemen. Former US Treasury Under-Secretary for Terrorism and Financial Intelligence David Cohen said, "AQAP used ransom money for the return of European hostages to finance it over \$20 million campaign to seize territory in Yemen between mid-2011 and mid-2012." (Cohen, 2014).

As of 2014, Yemeni government officials told the UN that "around 30 percent of kidnappings in Yemen were committed by AQAP" (Fanusie & Entz, 2017a). For decades, gangs, cartels, terrorists and insurgent groups have utilized kidnapping by ransom as a seemingly simple and low-cost method to garner a large amount of funds. The kidnapping of important foreigners is particularly lucrative.

The last main component of AQAP's financing is donation. Donations have always been a major contributor to the group's funding and will most likely continue to do so. These donations have an array of origins. A decent bulk of it is derived from various charitable organizations throughout the Middle East and also in Muslim and Arab communities in the Western world such as in England and the U.S. In some cases, individuals knowingly donated to AQAP's cause while some were under the

impression that they were donating to causes aimed at helping the poor and orphans in the Muslim world. The U.S. State Department's 2015 Country Reports stated that "donations from like-minded supporters were a historically consistent source of funding for AQAP" (2015). In Australia, AQAP makes money through donations collected in mosques. With the amount of Saudi members within AQAP, they also receive large amounts of money from wealthy donors whose wealth is primarily generated from oil.

Overall AQAP maintains a diversified financial portfolio. Their diversified source of funding allows them to continue earning revenue even if one or more of their sources are inoperable. However, their funding is particularly contingent on success on the battlefields

#### **4.5. Results Summary**

With oil being a major resource in the Middle East, it is not surprising that the oil industry would receive significant attention from terrorist groups. The relationship that each group has with oil varies based on their overall mission and how they view oil. While AQAP viewed the oil industry as a means to spread their message through planned attacks, ISIS identified the immense revenue capabilities of the oil industry and positioned themselves to capitalize from it. As this chapter shows, oil rents and oil infrastructure have greatly affected ISIS's growth and operations. The findings support the theory that access to resource wealth can greatly impact the viability of a terrorism group. Being that the situation with ISIS is very unique in that insurgent groups amassing territory and acquiring natural resources is rare, it is difficult to compare their success and results with others. However, I still believe that the general theory can be applied. By capturing oil rich territory, ISIS has placed themselves in a position of a monopoly. This also brings about the connection that a huge portion of ISIS's growth is due to external actors who are illegally purchasing its oil. By purchasing the oil, these external actors are contributing to the financing of ISIS efforts and allow them to purchase weapons, pay their fighters and fund terrorist attacks.

An interesting aspect of the findings was the amount ISIS collects from taxing its population. It is astounding that despite their territories being conflict ridden, they were able to, at one point, make \$81 million a month from taxes. The results indicate that though oil was and is essential to ISIS's growth

and success, it is not the only contributor. As evident by the weakening of the group after suffering a significant loss in territory, their success lies within a combination of the exploitation of oil and oil infrastructure as well as the acquisition of territory.

## **5. Discussion and Conclusion**

This chapter provides an overview and analysis of the findings that were presented in the previous chapter. I will discuss the results in detail and their correlation to the research questions and overall research topic. I will adequately qualitatively assess my theories on oil's role in the growth of ISIS and the operations of AQAP.

Choosing to use a literature-based methodology for this study contributed positively to the overall results. These literatures have already been extensively reviewed and the data proven to be thorough. This methodology allowed for an array of information from multiple sources to be gathered, analyzed and presented.

With oil being the main resource in the Middle East, it is expected that the oil industry would be a focus of terrorist and insurgent groups. Since the 1970s, as multiple terrorist groups began to emerge in these oil wealthy sates, the concern of their possible effect on oil prices and global oil supply began to be investigated. The primary result of my research indicates that oil plays a significant role in the growth of ISIS. With AQAP oil also played a role albeit in a different manner and not as central. When analyzing and comparing the different sources of financing of ISIS and AQAP, it is evident that they manage a very diversified portfolio. However, their access to oil, was still quite significant.

### **5.1 Analysis**

Based on the results presented in the previous chapter, as well as some of the literature reviewed, the primary hypothesis that oil rents and oil infrastructure have exponentially contributed to the growth of ISIS has been proven correct. When trying to understand ISIS's relationship with oil, it is important to consider some of the actions taken by the group. Throughout 2013 and early 2014, ISIS systematically began to seize major oil fields in Syria and Iraq. By 2016, they held the majority of oil fields in both

countries. In their rise to power, ISIS could have chosen to attack and destroy these oil fields rendering them useless for others. This is the course of action that had generally been employed by other groups such as AQAP. Instead though, ISIS opted to utilize these fields to support their operations. ISIS chose to focus on the use of oil fields that required a lower level of technical knowledge to operate, instead of key pipelines with expansive infrastructures. ISIS was fully cognizant of their inability to operate huge refineries such as the Baiji Refinery in Iraq. Despite this they made the effort to capture the refinery on their way to Baghdad. The primary reason for capturing a refinery that would effectively be inoperable was to deprive the Iraqi government from using the refinery. Their use of a similar tactic against the Iraq-Turkey Pipeline reinforces their practice of aiming to render infrastructure that they would be unable to use useless for others.

With the oil fields that they were able to manage and operate though, ISIS did so effectively. They utilized their control over oil fields to extract oil for operational and financial gains. Having access to their own source of oil provided them with ample fuel for their vehicles as well as a highly sought-after commodity to trade for weapons and to sell. In 2014, their revenue from selling and smuggling oil reached a weekly high of \$28 million. The decision by ISIS leaders to prioritize oil as a central focus in their overall strategy evidently played an integral role in the group's quick rise to power. Their plan to obtain fully functional oil assets was smart and sustainable. It provided them a reliable and continuous source of revenue.

ISIS's actions are a clear indication of the third causal mechanism that this research utilizes. ISIS was able to use the large amount of oil (and gas) wealth to fund the organization. When they were unable to extract the resources themselves they either forced locals to operate the facilities or hindered the ability of opposing forces to extract and market the resources themselves. This same mechanism can be applied towards AQAP, especially during their control of Mukalla. Although they were not in a position to extract and engage in the direct sale of oil, their control of the ports allowed for them to earn revenue through smuggling as well as extorting oil companies.

The data presented in the findings demonstrates how integral oil has been for both groups. ISIS, from the onset opted to turn the resource into an asset and significant revenue source. AQAP originally used oil as a means to further spread their message. Aside from their direct gains from oil, ISIS and

AQAP have also benefited through the contributions of wealthy donors whose wealth stemmed primarily from oil.

Although this study answered and explained the extent to which oil factored in the operations and growth of ISIS and AQAP, it also highlights that oil is not the only revenue source for the groups. The existence of the massive amount of oil reserves in Iraq and Syria contributed to their attractiveness to ISIS. This is in line with the other causal mechanism that this research uses. It explains that “resource wealth encourages national conflicts, increasing the value of the state as a target”. This can also be applied to the situation in Yemen with AQAP. Although the base of AQAP being in Yemen is primarily due to them being pushed out of Saudi Arabia, the natural resources in the country contributed to conflict which in turn contributed to AQAP’s ability to embed themselves and rise within the country.

As it is well known that ISIS and AQAP have been benefiting from oil, both directly and indirectly, the figures related to their oil revenue were not overwhelmingly surprising. However, their other sources of financing were. The use of taxes by both groups and its effectiveness at generating large amounts of income is enterprising. The territories that ISIS and AQAP held control over are conflict ridden. Therefore, it is surprising that they were able to generate upwards of \$600 million annually from taxation. While oil did contribute extensively to the growth and development of ISIS, the loss of territory is what began to hamper their growth. Despite ISIS-held fields being attacked by U.S. airstrikes, they were generally able to still keep the oil flowing for their needs. However, when they began to lose some of their acquired territory to Kurdish forces and U.S. actions their downward spiral began. Not only did losing territory mean they lost control over a population for whom they levied tax on.

The key findings of this research are supported by the literatures presented. Oil is an extremely lucrative natural resource that plays a major role in the Middle East. Not only does the control of oil yield economic power, but also political. ISIS took advantage of already weakened states in deteriorating conditions. Although they did not grow to their full extent solely as a result of oil revenue, the control they had over oil and the revenue it generated played a major role. This research is not claiming that oil leads to terrorism but does assert that oil assets fuel terrorism.

## **5.2 Implications**

Although further research is recommended to expand on the points and theories outlined in this study, there are some implications. As indicated in the findings, oil and oil infrastructure are viewed as lucrative assets to terrorist groups and insurgents. Gaining control of these assets negatively impact the global oil supply and prices. It also provides a sustainable revenue source for these groups. It is important that governments and private oil companies that operate facilities and have stakes in these countries provide extensive security around their facilities, especially during times of unrest. Although the actions of terrorist groups are sometimes difficult to predict, understanding the implications on the oil industry can lead to better decision and policy making.

## **5.3 Recommendations for Further Research**

The main priority for future research would be acquiring more accurate data on the oil production and oil sales made by ISIS. Along with this, having more data regarding ISIS's spending, as well as the percentage of oil that they use for personal reasons, such as fueling vehicles, will contribute significantly. Having more specific data, and possibly using country-level sources, will provide for a more well-rounded study. In addition, while it is understandable that getting such precise numbers will be difficult to obtain, having these gaps filled will be beneficial for future research.

My final recommendation for future research is to analyze the terrorist groups that do not have control over oil producing territories and compare their growth and operations to that of ISIS. I would recommend selecting groups that operate or have operated in a similar environment and within a similar structure and analyze their income generating sources. This would provide a clear indication into the extent to which oil assets can be beneficial.



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