ENERGY SECURITY IN JORDAN'S FOREIGN POLICY, 2003 - 2014

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ENERGY SECURITY IN JORDAN'S FOREIGN POLICY, 2003 -2014

by

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بسم الله الرحمن الرحيم

DEDICATION

I dedicate this thesis to my lovely parents and wife

Dad, Mom, and Rama

Your love covers me. Your grace sustains me. Your mercy redeems me.

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LIST OF ABBREVIATIONS

ACC	Arab Cooperation Council
AFESD	Arab Fund for Economic and Social Development
AFESD	Arab Fund for Economic and Social Development
AL	Arab League
ASEAN	Association of Southeast Asian Nations
EMP	Euro-Mediterranean partnership
EU	European Union
FGDs	Focus Group Discussions
FTA	Free Trade Agreement
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
IAEA	International Atomic Energy Agency
IEA	International Energy Agency
IMF	International Monetary Fund
INCOSIN	Saudi Arabian International Corporation for Oil Shale Investment
IRI	International Republican Institute
ISIS	Islamic State of Iraq and Syria
KEPCO	Korea Electric Power Corp.
LNG	Liquefied Natural Gas
MCC	Millennium Challenge Corporation
MWe	Megawatt Electrical
NATO	North Atlantic Treaty Organization
NDI	National Democratic Institute for International Affairs
NGO	Non-Governmental Organization

NOCs	China’s national oil companies
OIC	Organization of Islamic Cooperation
OPEC	Organization of Petroleum Exporting Countries
PV	Photovoltaic
RSS	Royal Scientific Society
TOE	Tons of Oil Equivalent
UAE	United Arab Emirates
UK	United Kingdom
UNHCR	United Nations High Commissioner for Refugees
UNRWA	United Nations Relief and Works Agency
US	United States
USSR	The Union of Socialist Soviet Republics
USAID	United States Agency for International Development
WB	World Bank
WTO	World Trade Organization
WWI	World War I
WWII	World War II

KESELAMATAN TENAGA DALAM DASAR LUAR NEGARA JORDAN, 2003 - 2014

ABSTRAK

Jordan mengimport lebih 97 peratus daripada keperluan tenaga negara dalam konteks ekonomi, politik dan kekangan sosial, terutamanya selepas kebanjiran pelarian dari negara-negara jiran dan gangguan bekalan gas asli dari Mesir yang disebabkan ketidakstabilan di Timur Tengah. Justeru, tesis ini mengkaji pendekatan politik yang diambil untuk menjamin keselamatan tenaga sepanjang tempoh 2003 - 2004. Objektif utama kajian ini adalah mengenal pasti kekuatan hubungan di antara dasar luar negera Jordan dan keselamatan tenaga, untuk menerangkan kesan kebergantungan terhadap sumber tenaga luar negara dan pengaruh pembekal tenaga terhadap dasar luar negara Jordan, di samping mengenal pasti peranan dasar luar negera Jordan dalam menangani isu keselamatan tenaga. Analog Institutionalisme Neoliberal daripada kesalingbergantungan dan kerjasama memberikan suatu perspektif teori tentang cara memahami permasalahan ini. Oleh itu, suatu reka bentuk kajian kualitatif digunakan dan asas empirik daripada kajian terdiri daripada sebelas sesi temu bual separa berstruktur dengan golongan elit dan dua kumpulan perbincangan berfokus. Peserta kajian terdiri daripada latar belakang akademik, politik, dan sosial. Kesemua data disokong dengan data rasmi yang diperoleh daripada pihak kerajaan. Data dianalisis dengan program perisian kualitatif Nvivo10. Dapatan kajian mencadangkan bahawa keselamatan tenaga adalah satu daripada objektif utama dasar luar negera Jordan dan juga merupakan misi utama bagi penggubal dasar selepas 2006. Hasil kajian juga menunjukkan bahawa Jordan mempunyai suatu prinsip tetap yang menjadi panduan dalam hal-ehwal dasar luar

negara. Berpandukan prinsip ini, Jordan cuba memenuhi keperluan tenaganya dengan menjalankan kerjasama dengan pembekal tenaga untuk mengurangkan pengaruh mereka ke atas dasar luar negera Jordan. Akhir sekali, dapatan kajian mencadangkan dasar yang mungkin dalam menangani isu keselamatan tenaga. Di samping itu, teori dan implikasi dasar turut diutarakan, dan hala tuju penyelidikan masa depan juga dicadangkan.

ENERGY SECURITY IN JORDAN'S FOREIGN POLICY, 2003 - 2014

ABSTRACT

Jordan imports more than ninety-seven percent of its energy needs within a context of economic, political, and social difficulties, especially after the influx of refugees from neighboring countries and the interruption of natural gas supply from Egypt due to the instability in the Middle East. Therefore, the political approach to achieve energy security over the period 2003 to 2014 is explored in this thesis. The primary objectives of the study are to identify the strength of the relation between Jordan's foreign policy and energy security, to clarify the effect of dependence on foreign energy sources and the influence of energy suppliers on Jordan's foreign policy, and to identify the role of foreign policy in addressing the energy security issues. The Neoliberal Institutionalism analogue of interdependence and cooperation offer a theoretical perspective on how to understand the problem. A qualitative study design was adopted, and the empirical basis of the study consisted of eleven semi-structured interviews with the elite, and two focus group discussions with participants in different academic, political, and social backgrounds, all supported by official data from the government. The data were analyzed by qualitative software program NVivo 10. The results suggest that energy security is considered one of the main objectives of Jordan's foreign policy, and became even a higher priority mission for policymakers after 2006. The results also reveal that Jordan has fixed principles that guide its foreign policy. Under these principles, Jordan has pursued its energy needs, utilizing the mutual interests with energy suppliers to minimize their interference in its foreign policy. Finally, the findings point toward possible policies

to address energy security issues. The theoretical and policy implications are offered, and future research directions are proposed.

CHAPTER 1

INTRODUCTION

This chapter details the background information about the study, problem statement, research objectives, and research questions. It also provides in detail the focus of the study, and its significance and scope. The outline of the study is also presented.

1.1 Background of the Study

Issues on energy security have become one of the most crucial factors in international relations since the 1990s (Ghikas, 2009). By the 21st century, energy security has become one of the major concerns of a majority of nation states, due to the importance of energy in international relations (Abdurahmonov, 2009; Chester, 2010; Grant, 2008; Kalicki & Goldwyn, 2005; Moran & Russell, 2008; Wesley, 2007; Yergin, 2005) especially that the primary energy sources are located in unstable areas (Helm, 2007). In this regard, in today's world, each country is concerned about securing its energy, it is considered one of the most important aspect in every developing and developed state (Campe, 2011).

Consequently, the application of energy security is more important to countries that have limited resources, like Jordan, which is located in the Middle East. In the meantime, most of the Middle Eastern countries depend on what can be named *easy money* that is sourced from natural resources (Zakaria, 2004). However, in the case of Jordan, the situation is different as the country is a total energy

importer which put it in a more critical position compared to any other country in the region.

As Jordan is located in one of the hottest political spots in the world where conflicts such as the Arab-Israeli conflict, Iraq crisis, Syrian civil war, and other revolutions occur in the region, identifying the foreign policy agenda is vital. This identification can help in introducing a political approach that can deal with the complexity and the vitality of the evolving events, where decisions are critical and have a significant impact unique to the region. Moreover, as the political and economic crisis threatens Jordan's political and social stability, there is an urgency to shape the country's foreign policy for the best interest of the Jordanian security in several aspects.

Jordan can be classified as a developing energy importer based on the fact that it imports more than 97% of its energy requirements (Al-Arabiya, 2014; Ministry of Planning and International Cooperation [MOPIC], 2013b). The energy imports worth around one fifth of its Gross Domestic Product (GDP) (World Nuclear Association [WNA], 2014). Therefore, current research seems to be vital to validate the view about Jordan's foreign policy toward energy security.

In general, Jordan's foreign policy has considered its diplomatic relations with energy suppliers, specifically, Iraq, the Gulf States, and Egypt. The relationship goes back to the year 1973 when the Gulf States mainly, Saudi Arabia and Kuwait, used to support Jordan's energy needs with a favorable price. This kind of aid took away the pressure from Jordan to improve its energy plans (Venegas, 2013). After the Iran-Iraq War, Jordan's diplomatic relationship with Iraq became stronger as the latter supported Jordan with its oil needs with a price which was equal to 30% of the global price (Lasensky, 2006). Consequently, the privilege ended in 2003 by the

beginning of the Iraq War, then the Gulf states began to support Jordan until 2006, the year where the energy subsidies stopped (Awad, 2009). After 2006, energy costs became a serious problem in Jordan.

Jordan's foreign policy challenges regarding securing energy are connected to two main bases, first, providing sufficient energy supply, and second, the affordability of energy price. For example, Egyptian gas import is very important to Jordan, as Egyptian gas contributes to 90% of the electricity generation in the Kingdom (Henderson & Schenker, 2014). The gas supply has been affected by the Egyptian revolution in 2011 and coincided with a massive influx of Syrian refugees to the country, creating more pressure on Jordan's foreign policy in regards to obtaining an alternative different gas supply.

All these circumstances encourage the identification of the role of Jordan's foreign policy to secure energy as this is crucial in the case of Jordan.

Figure 1. Map of Jordan and its neighbors (Mathisen, 2013, p. VIII)

1.1.1 General Information about Jordan

This section points up the geographical location and population of Jordan, a brief history of the country, the shape of the political system and the current economic situation in Jordan.

1.1.1 (a) Geography & Population

Jordan is situated in Southwest Asia, south of Syria, west of Iraq, northwest of Saudi Arabia and east of Palestine and Israel; politically, the area has also been referred to the Middle East. The territory of Jordan now spans around 89,342 square kilometers; where the land area covers 88,802 sq km, and water covers 540 sq km of the area. Jordan sole coastline runs a total length of around 26 km (Gulf of Aqaba) in the city of Aqaba along the Red Sea. According to the latest population and housing census, the total population of Jordan stands at around 9.5 million; which consists of 6.6 million Jordanians and 2.9 million immigrants, including 1.3 million Syrian refugees (Department of Statistics [DOS], 2016).

1.1.1 (b) History

In 1920-1921, Britain marked off Transjordan (Jordan now) from Palestine after the end of the World War I (WWI) and the collapse of the Ottoman Empire, then, in 1921, Prince Abdullah Bin Hussein became the prince of Transjordan under the British mandates. The country gained its independence after the World War II (WWII), in 1946. After its independence, the Kingdom is known as *The Hashemite Kingdom of Jordan* under the rule of King Abdullah I bin Hussein.

The notable ruler of the country was King Hussein bin Talal, who ruled the monarchy from 1953 until 1999. King Hussein ruled in a very critical time, where the kingdom survived conflicts between great powers including The Union of Socialist Soviet Republics (USSR) and the United States (U.S.). At the same time, it also endured disputes with other Arab states such as Egypt and Syria during the Arab cold war, which was influenced by the cold war between the Soviet Union and the United States. Moreover, the Six-Day War in 1967 made Jordan lose West Bank, while in 1988; Jordan enduringly waived the claims to the West Bank. Six years later, in 1994, Jordan signed a peace treaty with Israel.

The reign of King Abdullah II bin Hussein started in 1999, after the death of the King's father, King Hussein. Since his inauguration, King Abdullah has faced big challenges such as the Iraq War 2003, which saw a massive influx of Iraqi refugees, as well as the stop of superior oil support from Iraq. Other challenges include the Arab revolutions and civil wars among Arab states since the end of 2010. Consequently, the Syrian refugees began to enter Jordan, creating sudden growth of services and energy demands (MOPIC, 2013b).

1.1.1 (c) Political System

Jordan is country practices a constitutional monarchy where the notable constitution was founded by King Talal bin Abdullah in 1952 (Gubser, 1983). In this light, there are two types of constitutional monarchies, executive monarchies, and ceremonial monarchies. An example of ceremonial monarchies is the system of governance in the United Kingdom (UK) where the monarchy has limited and does not have any significant political influence. Under an executive monarchy, such as

Jordan and many Arab countries, the monarch remains to have a significant amount of political power and acts as the main executive power.

The Constitution has been edited several times during the reign of Jordan past and current kings. The laws in the country are based on both Islamic rules and the French civil law. In the Jordanian political system, the king has the sheer power and is assisted by an executive branch, which consists of a prime minister and cabinet. The court of law controls the judicial branch. There are two chambers in the National Assembly; the Assembly of Deputies, which has 130 members elected every four years, and the Senates which consist of half of the deputies and are selected by the king (European Forum for Democracy and Solidarity, 2014).

After 2011, King Abdullah II has adopted several political and economic reforms, which sparked by the numerous calls for reform. In this matter, several stages need to be achieved as Arab revolutions sparked serious public calls for the King to create a major constitutional reform. At the same time, the king and the government should help to rectify issues on the high price of energy, especially the raising energy price, as well as the increase in demand, and the drop in supply (European Forum for Democracy and Solidarity, 2014).

1.1.1 (d) Economic Situation

Jordan's economy depends mostly on foreign loans, international aid, and remittances from expatriate workers (Index of Economic Freedom, 2015). Its GDP by year-end 2014 was about $35.8 billion (Focus Economics, 2015; Ministry of Finance, 2015), and compared to its neighbors, Jordan has a few natural resources and does not have natural oil supplies. Although there is a gas field near Iraqi borders, the fuel supplied from this area is insufficient to meet the internal demands

of energy (Henderson & Schenker, 2014). The country's only significant exploited natural resources are potash and phosphates, and it exports about $1.61 billion of them (Jordan Constructions Contractors Association [JCCA], 2014).

According to latest measurements, in 2015, Jordan's total exports stand at $7.8 billion, while its imports are about $18.1 billion, resulting in a negative trade balance of $10.3 billion (DOS, 2015). The budget deficit is – 3.6 % of the GDP, (General Budget Department [GBD], 2016).

The so-called *Arab Spring* exacerbated the energy problem in the country along with regional instability, contributed to the country's weak economy. This instability is pacified with short-term economic solutions; mainly by the international loans. The instability affects the implementation of long-term financial programs, adding to the economic crisis. The difficult economic situation can be considered as a direct cause for the latest democratic political reforms. The population also sees the political reforms as means to reduce poor government budget management and to increase the transparency in handling these issues. Empowering the people to practice politics, gives the government the opportunity to increase stability until the economic situation is better. The facts and context of the economic situation in Jordan can speak for themselves and prove that they are the primary source of instability. This situation becomes especially clear when Jordan economy is compared to the dire economic situations of the Arab regimes that have already fallen. Jordan's budget deficit is worse than those of Tunisia, Libya, Egypt, and Syria during the peak of their instability.

The government cut subsidies for essential goods in 1989, 1996, 2008, 2011, and 2012. Unsurprisingly, these are the same years that instability and protests took place in the country. In 2012, one of the largest protests in Jordan’s history happened

after raising the price of gas and oil. Liberalization of goods prices was mandatory to rescue the economy in the short-term (Buck, 2012).

The rising living costs and unemployment have become one of the main concerns for Jordanians. Therefore, any demands or calls for change from the people will target the economic sector, before the political sector. In this light, empirically, the increasing unemployment rates of Jordanians (11.9% in 2013, and 13% in 2014) has posed serious consequences in the country (Directorate of Household Surveys, 2016).

In 2011, the net public debt was about $18.09 billion. Moreover, by the end of 2014, and in one year, the net public debt rose by 7.6% from its level at the end of 2013, reaching about $29.02 billion (despite the positive GDP growth of 7.3% in 2014), which represents 80.3% of the GDP (Ministry of Finance, 2014) .

Amman received a tremendous amount of monetary support from western countries and is a member of World Trade Organization (WTO) since 2000 (Oxford Business Group, 2014). It also has signed the Free Trade Agreement (FTA) with the U.S. in 2001 (Rosen, 2004), yet, the trade balance is still negative with imports more than twice larger than exports. The balance later become worse by the arrival of more than 1.3 million Syrian refugees fleeing the Syrian civil war since 2011. The refugees increase the pressure on the government and causes severe issues in regards to the availability of resources (Index of Economic Freedom, 2015).

1.1.2 Energy Security in Jordan's Foreign Policy

1.1.2 (a) Historical Background

The year 1973 marked the notable rise of the Gulf States' economy as a result of oil trade, and this widely opened the door between Jordan and the Gulf States. In this light, these states direly need professional minds from Jordan to fulfill the enormous demand for high-skilled professions, Saudi Arabia and Kuwait were the most dependent countries on that among the Gulf States. In this light, Jordan's foreign policy was efficient in gaining the Gulf States' financial support, as well as securing low oil price. On the other hand, it has indirect negative influences to Jordanian domestic energy projects, which in return, caused a high price to pay by Jordan later on.

In 1979, oil exports from Iran, as well as Iraq, mostly stopped, due the Iranian revolution and war between the two states by 1980. This situation caused a huge surge in the demand for oil, which made the Gulf States, and other members of Organization of Petroleum Exporting Countries (OPEC) increase their production. As a result, the supplies of oil surpassed the demand, which led to severe fall in oil prices afterward. Saudi Arabia and Kuwait economy was highly affected by this situation, which made both of them reduce their financial help to Jordan to the minimum level (Venegas, 2013).

Consequently, Jordan's foreign policy favored a relationship which Iraq, as Iraq supplied the cheapest energy. On this subject, Iraq wanted Jordan's support in its international policy, while Jordan has needed cheap energy and a new market for its produced goods. Therefore, the relation between the two countries became stronger than before after the Second Gulf War (1990-1991), when Saudi Arabia completely

stopped supporting Jordan with oil, and Jordanian labors were expelled, not only from Saudi Arabia but all the Gulf States (Alquraan, 1995). As a result, Jordan imported oil from Iraq with a vast discount, equaling to a third of the international price until 2003 (Lasensky, 2006).

Inherently, After the war on Iraq in 2003, Saudi Arabia, UAE and Kuwait, started to support Jordan with oil by offering the same price privilege but this was not permanent since this venture ended in 2006 (Awad, 2009). After 2006, Jordan started to face real challenges in energy security since it has to import oil based on the global price. In the meantime, it continued to purchase gas from Egypt with half of the world market price, but this stopped after Mubarak's regime collapse in 2011. Later in July of the same year, Jordan signed a new 20-year agreement with Egypt, where the price offered is very near to the global market price (Kotb, 2011). As Jordan depends on the Egyptian gas for nearly 90% of its electricity generation, this agreement with the new Egyptian regime increased the gas budget to 30% and later the gas supply interrupted (Henderson & Schenker, 2014).

As a result, Jordan found itself in a severe energy problem and the energy security issue popped off to the surface never like before.

1.1.2 (b) The Arab Spring: 2012 Fuel Price Protest

In 2011, the government had located around $225 million for bread subsidies (Khriashy, 2015, p. 7). Nevertheless, this was not sufficient to make up for the increase in the prices of necessities. Hence, the overall improvements in the country's economic state had not been diffused into society's pockets and could not be felt in the short-term. As a result, various protests occurred throughout most cities in the country, including Irbid, Karak, Salt, Ma'an, and Amman in 2011.

As a result, the King ordered the reduction of prices and taxes on foods and fuel, even though the Jordanian economy was not strong enough to handle such cuts. However, the region was in turmoil, and the government could not risk using violence or aggressive containment tactics in that given period. Furthermore, in an attempt to console the public, the King also dismissed the government, which had just started working on initiatives to improve the long-term economic and political states of the country. At the same time, the coinciding disruption of Egypt's gas pipeline to Jordan had affected Jordan's gas imports tremendously. This disturbance caused a rise in fuel prices, which naturally caused greater instability due to economic difficulties. At that time, in July 2012, the IMF loaned $2 billion to Jordan for the next three years. While this provided a short-term relief for Jordan, several experts raised the concern that the loan might increase economic problem in the long run (Buck, 2012).

After the protests had quieted down for some time, Jordan cut down its subsidies for fuel and oil derivatives in November 2012 to secure IMF loan (Al-Khalidi, 2012a). The government had no other choice because otherwise, it would not be able to supply food, pay for energy, or maintain decent public services. Therefore, the increase in the prices had infuriated the population, and protesters went back to the streets in an unyielding way which created a major threat to the Jordanian regime (Al-Khalidi, 2012b).

As observed, different regional conflicts strongly affected Jordan’s political, economic, and social situation, especially that the country has inadequate natural resources and depends on its neighbors for the majority of its needs. For instance, crude oil is the country’s primary import, and it depends on its neighbors for its supplies.

In this light, Schenker and Henderson (2014) proposed that Jordan's foreign policy might look forward to Israeli gas, as Israel is almost ready to export gas from two large reserves. In this case, Israel will be glad to support all of Jordan's domestic needs for gas with favorable price, and Israel seriously seeks stability in Jordanian government, which will reflect Israel's stability. After all, this is a questionable option because Israel is an enemy for Jordanians, which will probably prevent Jordan from making a deal with the country shortly.

Another issue influencing Jordan's foreign policy decision in the near future is the recent Jordanian negotiations and plans made with John Kerry, the United States' Secretary of State. The emergence of a potential settlement regarding the Israeli-Palestinian conflict is rumored, and it is feared that this will result in many concessions on behalf of the Palestinian refugees. The concessions include the elimination of their *right to return*, which creates fear amongst the East Bankers, as they worry that they will permanently become the country's minority and will have to make way for the Palestinian-Jordanians in Jordanian politics. Consequently, even though many of the Palestinian-Jordanians have permanently resided in Jordan, they are also fearful of the outcome of such potential settlement. In this issue, King Abdullah stated in a meeting with the U.S. President Barack Obama in February 2014, "We are obviously a stakeholder" in all of the negotiations between Israel and Palestine (The White House, 2014).

The dangerous effects of the Arab Spring in Egypt, Libya, Yemen, and Syria, made the government realize the dire consequences of sidelining the Jordanian population. In this light, the future of the population is to be determined by the actions the government decides to take, particularly in a country with weak civil societies and political parties. Decisions made in the midst of instability strongly

indicate possibilities of how the future of the country is going to look, and after 15 years on the throne and many promises of democratization, Jordan's stability seems to be more dependent than ever on its King (The Economist, 2014).

1.1.2 (c) Refugees Pressure

Jordan hosts the third largest number of refugees in the world (United Nations High Commissioner for Refugees [UNHCR], 2014). Consequently, the refugee influx in Jordan poses a major threat to Jordan's political, economic, and social stability (Adnegard, 2014) ever since Jordan welcomed its first batch of refugee in 1948. It has become one of the major destination for refugees ever since, and the country has hosted the largest number of Palestinians since 1948 and 1967; during the invasion of Kuwait and the Gulf War in 1990-91, approximately 350,000 Palestinian refugees in the Gulf settled in Jordan. In 2003, 150,000 Iraqi refugees had legally settled in Jordan over the previous decade, while another 150,000 had settled in Jordan illegally. In this light, the United Nations High Commissioner for Refugees (UNHCR) had asked Jordan to grant temporary protection to Iraqi asylum seekers. This request had increased the number of refugees to approximately half a million. These refugees were provided with healthcare and education, even when they were no longer permitted legally to reside in the country. However, the number of Iraqi refugees in Jordan decreased to 130 thousand (DOS, 2016). Furthermore, throughout the Jordanian history, the country had hosted refugees from the Lebanese Civil War in 1975 to 1980. As a result, hundreds of thousands of these refugees still reside in Jordan.

The biggest burden is from the Syrian refugees due to their large number in a very short time. According to the latest statistics, there are 1.3 million Syrian

refugees, more than 600 thousand Palestinians and 130 thousand Iraqi are currently living in Jordan among 6.6 million Jordanians (DOS, 2016).

Naturally, some of the refugee camps have turned into cities due to their large population. For example, the Za'atari camp for Syrian refugees is now the fifth largest population center in Jordan, while Al-Baq'a is a city composed of third-generation Palestinian refugees living in slum-like conditions. These settlements have not been receiving the promised international support needed. The similar can also be reported for the majority of refugee camps in Amman, Irbid, and Mafraq.

As stated earlier, the biggest challenge for Jordan is the Syrian civil war and its human atrocities, which prompted Jordan to host the refugees and open its borders to them. The Jordanian-Syrian border extended on 378 kilometers, with twenty-five different crossing points for Syrian refugees. The total number of Syrian living in Jordan is over 1.3 million, with over 689,000 had been registered with the UNHCR as refugees by the year 2015 (UNHCR, 2015). These refugees have resided in Jordan since the beginning of the Syrian Civil War (Fibla, 2015).

By 2013, Jordan became the third largest host country for refugees in the world (UNHCR, 2014). The numbers are constantly increasing, with an average of 2,000 Syrians crossing the Jordanian border daily. They are offered first aid and food at Jordanian centers and are registered by the army and the UNHCR. There are currently four operating camps for the Syrians, and two other camps are being constructed. Often, these camps are overcrowded, understaffed, and under-equipped as a result of the large numbers of refugees and the limited resources, as the camps are not able to keep up with the demands. Apparently, the cooperation between international agencies and Non-Governmental Organizations (NGOs) to provide

services is still not enough, and more cooperation with the International community is still needed.

Consequently, Jordan has a humanitarian obligation to these refugees who are in need of assistance, and thus, it keeps its borders open, while the impact of the refugees is straining the country's already troubled economy. The monetary cost of Syrian refugees in Jordan in 2013 alone was calculated at $2 billion. In this light, Jordan sustain around a third of this cost through international aid (UNHCR, 2014).

Inherently, the refugees' impacts on energy resources include increases in operational costs, which puts a burden on the country's infrastructure; creates more pressure on the education system, and threaten the social integrity. It is apparent that the pressure faced by the huge numbers of refugees has affected Jordan in all its different dimensions, which could lead to instability, if foreign assistance and NGOs do not sufficiently help to provide these for refugees, especially in economic terms as Jordan is struggling to provide this on its own.

1.1.2 (d) Partners & Foreign Aid

In a country managed by economic difficulties, foreign relations play a major role in the way the country is ruled, especially when foreign aid is deemed much more valuable to the country's stability than it would elsewhere.

Due to the Government's progress on the political, social, and economic reforms, Jordan is entitled to receive foreign assistance from various donor countries, financing institutions and international organizations. The foreign assistance provided is directed to fund priority development programs and projects to enhance growth and to sustain development in various vital sectors, particularly in the areas of water, education, health, infrastructure, youth and poverty, and microfinance, also,

to supporting the country's expenses. Thus, the impact of foreign assistance was reflected in supporting the development and modernization processes in all fronts. The types of assistance took four main shapes: Grants, loans, and technical assistance (MOPIC, 2016). In 2015, the foreign aid committed to Jordan through Ministry of Planning and International Cooperation was about $1384.283 million as grants and $1157.694 million as soft loans. Germany helped with $16.465 million for a solar project in Za'atari camp and $3.84 million to convert trash to energy. While, in 2014, the total amount of loans and grants received by Jordan was $1919.867 million with $10.49 million is for energy (MOPIC, 2015).

Jordan is on good terms with the American proxy in the Middle East as the U.S. considers Jordan as a big defense line for Israel, and a buffer zone for it in the Middle East. For example, Jordan location between Iraq and Israel, preventing those countries from sharing borders. It also separates Saudi Arabia and Syria, which have two religious regimes that belong to different Islamic sects. The location of Jordan shows its important role in the region (Sharp, 2015).

Furthermore, it is noted that the Kingdom is currently a key regional player, especially in light of the political conflicts, the refugee situation, the Palestinian-Israeli conflict, and the shadows of a looming peace treaty with Israel. The alliance of Jordan with foreign countries also lies beyond political parallels; Jordan's strategic geopolitical positioning, along with Jordan's tactical and calculated foreign relations strategies, maintained the flow of capitals into the country, in return for small concessions to avoid disruptions to the country's peace and stability (Burke, 2013).

The kingdom is a major stabilization factor in the region. In other words, while toppling of other Arab countries regimes can potentially work in favor of specific countries, Jordan's destabilization does not operate in the favor of any party.

Jordan also holds an utmost significant role amongst member countries of the Gulf Cooperation Council (GCC). Any significant destabilization in Jordan will have inescapable repercussions for the entire geopolitical region, and other nations are not willing to take that risk.

Another aspect that must be considered when discussing the important role of foreign relations and foreign aids in regards to Jordan's stability is as been previously emphasized in regards to the lack of resources, especially energy and water (Tal, 1993). This limited resources confines agriculture and creates a massive budget deficit in the country. As a result, Jordan's economy is almost entirely dependent on grants and lacks any substantial production capacity as Jordan does not have trade major assets like Egypt's Suez Canal that other countries could take advantage of in case of its destabilization.

Jordan entered the Euro-Mediterranean Partnership (EMP) in 1997, where it received around $780 million, making it the second largest recipient of European Assistance per capita (European Commission [EC], 2015). The assistance did not have any conditions in regards to political reform or stringent limitations. The country also entered the Millennium Challenge Corporation Threshold Program (MCC), which would provide it with $25 million with the standard condition that three out of the sixteen indicators must be targeted for advanced reforms. Furthermore, the European Union (EU) also provides Jordan with democracy assistance through EMP.

Also, Jordan has a unique relationship with the United States. The relationship between them is mutually beneficial; Jordan is an Arab country that has neutral foreign policies in the Middle East and it serves as a strategic ally for the U.S. in the Middle East. In return, it has received a large amount of foreign aid from the

United States, which help to maintain stability in the country, especially in the midst of an ongoing political and economic crises. President Barack Obama stated on February 14, 2014 “There have been few friends, partners, and allies around the world that have been as steadfast and reliable as his Majesty King Abdullah, as well as the people of Jordan. In a region that has obviously been going through enormous changes, the friendship between our people has been a constant” (The White House, 2014).

The signing of a peace treaty with Israel progressively supported Jordan’s economy. Also, the U.S. declared Jordan a non-NATO strategic ally (Choucair, 2006), relieved it out of its previous debt, and increased the amount of aid funneled into the country until it becomes one of the largest recipients of the U.S. economic and military assistance. Furthermore, during the Iraq War in 2003, the U.S. supplied Jordan with approximately twice the economic aid and military aid that it had before the war. In all, Jordan received $250 million in economic aid, $200 million in military support, and over $1 billion to offset the effects of the Iraq war on Jordan’s security and economy (Sharp, 2015).

Different U.S. organizations also assist Jordan. The National Democratic Institute for International Affairs (NDI) and the International Republican Institute (IRI) provide assistance through providing training skills and methods to enhance the democratic elements of the country (Sharp, 2015). In this issue, Former United States Secretary of State, Condoleezza Rice stated that “Jordan is making really great strides in its political evolution,” in a speech made in October 2006” (The New York Times, 2006). In this matter, the U.S. funds were given to Jordan in 2010 and 2011 by the Department of Defense, Department of State, United States Agency for International Development (USAID), and the treasury all fall under the category of

peace and security. This sector includes curbing transnational crime, counterterrorism, stabilization operations, and security sector reform (Tarnoff, 2010). These funds demonstrate that funding by international institutions and the support of the United States' are crucial in maintaining Jordan's needs.

Despite the various assistance, the kingdom found itself in a serious problem of energy security and the pressure from the influx of refugees, as the aid it receives does not cover its energy and refugee assistance needs. All these triggered the foreign policy makers in the country to put on more efforts to address these issues, putting into consideration the strong international relations the country has, as well as its liberalization with international institutions and great powers. In this light, current dissertation deeply investigates this issue.

1.1.2 (e) Obstacles to Energy Sources

Jordan imports more than 97% of its energy needs, which incurs the cost of around 20% of its GDP (WNA, 2014). According to the Department of Statistics (DOS) bulletin on foreign trade in 2013, the total bill for Jordan's energy imports is more than $6.2 billion per year (Jordan Times, 2013).

Jordan produces 14.64 billion kWh of electricity per year, which was mainly supplied by natural gas from Egypt, and after the collapse of Mubarak's regime in Egypt in 2011, Jordan started to face a shortage of gas supply. Consequently, in 2012, due to interruption of gas supply from Egypt, electricity production in Jordan switched to other more expensive fossil fuel. Imported natural gas generated its electricity (at 25% compared to 90% before 2011), 32% heavy fuel oil and diesel (32% each) and 11% was imported (Euroxx Securities, 2013). The electricity demand is around 3600 MWe in 2015, and expected to reach 5000 MWe in 2020,

and 8000 MWe in 2030 (WNA, 2014). These circumstances put Jordan's government in a very critical situation to achieve its energy security. It also creates the need for various solutions through different approaches, especially, the role of its foreign policy and developing domestic energy programs such as nuclear power, the wind, solar, and oil shale.

Regarding the nuclear program, which seems to be a priority for domestic energy productions. The reported summary of the Updated Master Strategy of the Energy Sector in Jordan for the Period 2007 to 2020, emphasized that the development of the nuclear project is the main plan to meet the increased demands for electricity (National Energy Research Center [NERC], 2007). El-Anis (2012) stated that Jordan aimed for its first nuclear power plant by the year 2015 (which did not happen), and to build more plants by the year 2030. The emphasis on nuclear program is based on the argument that it is the only suitable solution for the growing energy demand, and will reduce dependency on foreign energy sources.

Nonetheless, the adoption of nuclear power is a hotly disputed issue both within Jordanian domestic politics and within the international community. The Jordanian Atomic Energy Commission (JAEC) sees many benefits of atomic energy, including: reduction in dependency on hydrocarbons, more affordable electricity, greater consistency of supply, presence of available domestic uranium reserves, potential for export of uranium, and creation of jobs in multiple related industries (Jordan Atomic Energy Commission [JAEC], 2011a). Of course, the Commission also recognizes that there are major challenges like financial support, waste disposal, human resource development, and uranium extraction (JAEC, 2011b). Given the high regularity of nuclear power, Jordan sees it as a means of providing electricity to

support greater economic development and desalinization energy for seawater (JAEC, 2011a).

There are several sources of opposition overlooked by the Jordanian Atomic Energy Commission. Henderson and Schenker (2014) highlight the political opposition from both the United States and Israel. Domestically, it seems the high cost of the nuclear reactors, the possibility of terrorist attacks, environmental concerns, and safety concerns are among the major sticking points. Jordanians have conducted planned protests against the proposed nuclear plants and parliament had previously suspended progress on the project in 2012.

Seeley (2014) and El-Anis (2012) summarize the challenges the program is facing, especially high cost among other problems including but not limited to; first, many voices inside the country are against the project, particularly, in regards to safety matters and high cost that could affect and weakens the economy. Second, the program will not run smoothly because of the international opposition, mainly, from the U.S. and Israel (Kane, 2013).

Another alternative project is the use of wind energy. Jordan's wind atlas, which was designed in the 1980s, illustrates the suitable areas for producing energy from the wind. It was illustrated that Al-Ibrahimyya and Hoffa in the north and Al-Fujeij in the south are possible areas for electricity generation through wind power. In this light, Al-Ibrahimyah power plant was established in 1987, and it consists of only four wind turbines with the capacity of 0.08 MW for each turbine (Central Electricity Generating Company [CEGCO], 2014b). Also, Hoffa power plant was established in 1996 and consists of only five wind turbines with the capacity 0.225 MW for each turbine (CEGCO, 2014a). Furthermore, in 2013, South Korea's state-run power company Korea Electric Power Corp. (KEPCO) started to build the Al-

Fujeij power plant in the south of the country. The project is expecting to produce 90 MW by 2018 (Assabeel, 2015). Also, several other wind projects are being proposed in different areas in Jordan as the government hopes to generate 1800 MW of electricity from wind energy by 2020 (Yonhap News Agency, 2013). Up until now, the Jordanian government still faces a big challenge in this field, as the charge of producing electricity from the wind is $100 for every megawatt hour, which is twice larger than the cost of fossil energy. Therefore, consumers will still find it very costly (Hrayshat, 2007).

On the other hand, solar energy can be very efficient, as the average solar radiation in the country ranges about 5 to 7 kWh/m2/day, and this can be considered very high according to global average (Hrayshat, 2007, p. 10). The high radiation allows the generation of 1000 GWh energy per year (Zafar, 2014). In 1995, 25% of the Jordanian population depended on solar water heating, which allowed saving 2% of oil imports. Interestingly, Jordan is considered a developed country in solar water heating and its use in manufacturing. For example, 90 million m3/year of Dead Sea water are evaporated to produce potash and other salt products, which annually saves 4 million tons of fuel (Hrayshat, 2007). Furthermore, according to Hrayshat (2007), since the 1980s, about 300,000 solar water heaters had already been built. Still, no current, accurate number for the solar water heater is available.

In 2014, Royal Scientific Society (RSS) tested a new system of solar water heating, which expects to fulfill the need of Jordanians by establishing half million systems by the next coming ten years. At the same time, the Shams Ma'an Project will use photovoltaic (PV) power and is proposed as one of the largest power plant in the world (Zafar, 2014). Moreover, the solar thermal power station is a future project in Jordan where the development of new solar-power generation plant aims to increase

the production of electricity through providing renewable energy, which is much cheaper than energy produced through diesel or heavy fuel.

On the other hand, oil shale extraction is of paramount importance to Jordan, since it can be used to generate oil. Oil shale is an organic-rich sedimentary rock which produces oil when it is heated in high heat (Speight, 2008). Jordan has the fourth largest reserve of oil shale in the world, and it covers almost 70% of its territory (Karak International Oil [KIO], 2016).

Recently, the Jordanian International Oil Shale Symposium, which was held from 14-15 of April 2014, highlighted that Jordan has 45 billion barrels of oil shale (Bsieso, 2014). In this light, oil shale production can decrease the reliance on energy imports. Hence, oil shale is highly considered in producing electricity or oil. As a result, Jordan plans to generate electricity from oil shale, and this will cover 14% of energy demand by 2020 (UPI, 2013).

However, the big challenge is that converting oil shale into oil requires a significant amount of water, and this is problematic due to Jordan's limited water reserves (Bsieso, 2014). In 1968, Jordan started studying oil shale in El-Lajjun deposit and since then, several studies had been made by companies from Germany and the Soviet Union in the 1980s to identify the possibility of generating electricity from burning oil shale (Hamarneh, 2006). Furthermore, by the 21st century, there are 23 sites for oil shale (Alali, 2006), which garnered the interest of several countries from all over the world to sign agreements with the Jordanian government to produce oil. For example, the agreement with an Estonian company to generate electricity by 2017 (Global Risk Insights, 2013). Also, Eesti Energia presented a critical study on Jordan's ability to produce oil, which in return, will save around half billion of dollars in energy bill (Luck, 2012). Other contracts to study oil shale were signed by

Brazil's Petrobras in 2007 (Green Car Congress [GCC], 2007) and Royal Dutch Shell in 2009 (Wire Reports, 2009). These projects will not be notable before 2020. Also, the UK Company Clinches Oil-Shale, intended to produce 15000 barrels per day by the year 2015 according to a contract signed in 2011 (Engineer, 2011). Moreover, in 2013, the government approved an agreement with Saudi Arabian International Corporation for Oil Shale Investment (INCOSIN) to study oil shale sites (Bsieso, 2007). The company is supposed to produce 30,000 barrels per day (Blokhin et al., 2008) by the year 2019 (Ghazal, 2014b). Also, Jordan signed a memorandum for identifying a Chinese company (Fushun Mining Group) that can assist in locating oil shale (Ghazal, 2014a).

In summary, the official data demonstrates that by 2020, the government plan is to use 10% of the country's energy mix from renewable resources (MOPIC, 2013a). Domestic energy production in Jordan is still weak despite all the taken efforts. Hence, the country needs more initiatives in this field to secure its energy.

1.2 Problem Statement

In the recent years, much attention has been given to the consequences of dependency on energy imports (Stone, 2010). These fears of energy imports dependency are particularly relevant to states like Jordan, which is located in the Middle East, where most countries are suffering from wars and political instability. Jordan remains heavily dependent on neighboring countries' oil and natural gas because of its insignificant domestic energy resources (Venegas, 2013). Consequently, Jordan is one the world's most dependent countries on foreign energy sources, as it imports more than 97% of its energy needs (Al-Arabiya, 2014; MOPIC, 2013b). According to Jordan Ministry of Energy and Mineral Resources, the total