Implication of Climate Change on Security, Conflict and Political Outcomes in the Middle East

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Social scientists argue that oil rentier economies have a negative effect on the development of democratic political systems. However, the nature of the political, economic, and social dysfunctions in oil rentier states is being increasingly shaped by the changes in the global climate. Global climate change is expected to have major effects on energy production and consumption, infrastructure and transportation, as well as, access to food and water. These effects will impact international and national security, as well as, the nature of conflict and internal and external migration patterns. The effects of global climate change can already be felt in shaping the nature of conflict and its outcomes in countries such as Iraq and the Gulf States. However, despite the increasing importance of climate change in re-shaping the political and economic systems in oil producing countries, the topic is still not receiving the necessary attention from the scholars of the political economy of rentier states. In this paper, I will examine the effects of climate change on re-shaping the patterns of peace, war, and inequality in oil producing countries in the Middle East region.

I. INTRODUCTION

In the past few years, our understanding of climate change and its impact have increased tremendously. Research in political science, sociology and international relations have established a connection between climate change and conflict (Hsiang et al 2011; Hsiang 2014; Schleussner et al. 2016), the rise of terrorism and insurgency (Nett and Ruttinger 2016), and displacement (Scheffran 2012). The Middle East especially is predicted to suffer severely from climate change (Behnassi and McGlade 2017). For example, a recent report by the World Bank indicated that extreme heat will make some regions unlivable, most capital cities in the Middle East could face four months of exceedingly hot days every year, and rise in temperature, lack of rainfall and
unpredictable weather could result in desertification of 60% of the land area (The World Bank 2017).

One important and not well-explored part of the climate change puzzle in the Middle East is how the changes in climate and the changes in energy production are going to impact oil producing countries in the region. This is particularly important for multiple reasons. First, many Middle Eastern countries, such as Iraq and Saudi Arabia, depend on oil revenue as the main source of income. Second, the failure of these states to respond to the changes in the energy sector due to climate change will make these countries vulnerable to civil conflict and political instability, leading to wider destabilization in the whole region. Third, most research that looks at the impact of climate change on the oil industry looks specifically at the different responses of oil corporations, rather than on the response of the states. Fourth, research that looks more closely at the impact of climate change on the state level doesn’t look specifically at rentier states, which have very different structures compared to non-rentier states.

Despite the increasing importance of climate change in possibly re-shaping the political and economic systems in oil producing countries, the topic is still not receiving the necessary attention from scholars of the political economy of rent. In this paper, I attempt to highlight the larger picture of how governments in rentier states might respond – and why the nature of the response might be different among these different countries – to the changes in prices of oil and gas, and the shift to cleaner energy, due to the rising concerns around climate change. As a result, I ask what factors determine the response of rentier states to changes in energy production due to climate change? I argue that a
country’s response is shaped by four factors: state capacity, the presence and influence of environmental civil society organizations, geopolitical conditions and the influence of international oil corporations. Understanding a country’s ability to respond or to not respond to this long-term economic crisis is crucial to our understanding of and predicting the patterns of peace, war, and migration in oil producing countries in the Middle East region.

II. THE CURSE OF THE RENTIER ECONOMY

The rentier economy is defined as “an economy where the creation of wealth is centered around a small fraction of the society [the political elite]; the rest of the society is only engaged in the distribution and utilization of this wealth” (Luciani 1990). Research on rent comes in two main forms. The first one examines the political economy of rent and its effects on the nature of the political system in a rentier state (namely authoritarianism) (Luciani 1990; Ross 2001). The second addresses how rent affects the duration and intensity of civil conflict (Collier and Hoeffler 1998; Ross 2004). In addition, there is some research that looks at these countries' ability to diversify their economy through adopting new economic policies (IMF 2016).

Looking specifically at rentier states, one can see that achieving economic diversity has been very challenging. In fact, most diversification efforts have failed so far. One reason for this is that most governments in rentier states are politically and economically conservative. On the one hand, when oil prices fall down, usually these governments can manage to maintain stability without facing real social upheavals. On
the other hand, once oil prices start to rise again, efforts towards economic diversity usually come to a stop. Recent reports by the IMF suggest that there are some factors that might contribute positively to the state’s attempt to diversify its economy. These factors include openness of the economy, the ability to attract foreign capital, and the removal of trade barriers. In addition to that, it is important for these countries to maintain people’s income during the transition towards a new economic policy, to avoid pushing the country into civil unrest. The authors also suggest that these countries will be more successful in adapting new economic policies if the government allocated a sovereignty fund during the period of high oil prices to ease the transition and maintain liquidity of the economy once the oil prices go down. This tool will work best if the funds were private equity funds. These rentier states must also make fighting corruption a high priority. This happens when the country adopts standards of transparency as well as adapting global legal standards (Mochan, Zotin and Grigoryev 2017).

However, does oil producing countries have the capacity to adopt these changes to make the transition toward a more diverse economic system? The concept of the resource curse suggests that as resource dependency (particularly export dependency) increases, democracy is reduced and authoritarian political systems tend to form. For example, Tsui (2005) argued that oil reduces democracy by 30 percentage points per 100 billion barrels discovered. This is possible, as Beblawi argued, because oil resources elevate the pressure of accountability on the state through one or more of three mechanisms. First, governments in rentier states are less likely to tax the population, which reduces their incentives to demand accountability. Second, resource-dependent
states use oil revenues to buy patronage and loyalties, which puts less pressure on the state to democratize. Finally, oil revenues provide the government with enough resources to stifle the formation of social groups (civil society organizations) outside the state, which limits democratic mobilization. All three mechanisms undermine democracy.

In addition to having non-democratic governments, rentier states also have higher risks of falling into civil conflict once the non-democratic system collapses. Collier and Hoeffler (1998, 2002) found that, after covering 52 civil wars between 1960 and 1999, increasing resource dependence from 0% to 32% pushes a state’s risk of civil war from 1% to 22%. Collier and Hoeffler (2000) also found that revenues from primary resources finance violent conflict, which makes civil conflict more likely to occur. In this case, the different competing groups in these countries will engage in a complicated process of violence and legitimacy making to gain and maintain power. In all of these cases, oil resources give the incentive and revenues either to the political elite to create a non-democratic system, or to the different competing groups to engage in a violent and non-violent competition. In other words, actors in these rentier states don’t have the incentive to engage in a complicated and lengthy process of diversifying the economy, which most certainly will undermine their own power and wealth. Yet, the impact of climate change on these countries is a challenge that these countries have not experienced before. For example, while we know that most diversification attempts in rentier states tend to fail, we don’t know how a long-term economic and environmental crisis might impact these countries’ response, as well as their ability to respond.
III. CLIMATE CHANGE AND THE CRISIS OF RENT

Climate change refers to the long-term trends and processes in weather changes that are reflected in hotter temperatures (“global warming”) and more severe weather patterns, such as rainfall and water availability. In addition, climate change refers to the changes that occur either in short or long observation periods (Hsiang and Burke 2014). Recent research found that many countries in the Middle East and North Africa are going to be "virtually uninhabitable" by a combination of soaring summer temperatures, prolonged dust storms and increases in humidity levels (Max Planck Institute 2017). By 2050, days with a temperature of 46°C will increase and the days with a 50°C will double to about 80 days per year. Other research found that the increase of humidity in the Gulf countries is going to make outside activities very hazardous (MIT 2017).

However, while most countries in the region are going to face these conditions, rentier states are particularly more vulnerable to changes in the weather. On the one hand, the changes in climate will make the process of extracting oil a dangerous and unsafe one. Research indicates that extracting oil in extreme temperatures could prove to be costly and dangerous (Mathiesen 2017). On the other hands, changes in climate will impact the role and importance of oil in the world. Reports from the IEA (2017) point that global oil supply could struggle to keep pace with demand, and while oil supplies are growing in the United States, Canada and Brazil, this growth could stall by 2020, and by 2022 oil production will fall to a 14-year low. New supplies will still come from major low-cost Middle Eastern producers, such as Iran, and the United Arab Emirates, but other
countries like Nigeria, Algeria and Venezuela will face a decline in their oil production abilities. One important reason for why oil production will face a long-term crisis is the rise in temperatures due to climate change. For example, if the climate warms by 1.8°F, the demand for energy used for cooling is expected to increase by about 5-20%, while the demand for energy used for heating is expected to decrease by about 3-15%. And while natural gas is mostly used for operating electric units that are used for cooling, oil, wood, and coal is used for heating. In other words, the increase in temperature will decrease the need for oil (Mathiesen 2017).

Oil companies seem to be aware of these changes in the global market as well as in the global weather, and they are already preparing for the shift in energy production. For example, companies such as ConocoPhillips, Exxon, BP, Royal Dutch Shell, Eni, Total, and Statoil are backing the Paris Agreement. In addition, these companies stand to benefit from the Paris Agreement because the nations’ efforts to cut carbon emissions will lead to transitioning from coal-fired plants to gas-fired plants, and natural gas is quite a substantial portion of all those majors’ business investments and profits. Moreover, under the Oil and Gas Climate Initiative, companies, such as BP, CNPC, Eni, Pemex, Reliance Industries, Repsol, Saudi Aramco, Shell, Statoil, and Total have pledged $1 billion over the next ten years to fight climate change. (Harder and Nicholas 2017)

As a result, these rentier states will face a possible economic, political, and social collapse if they fail to find alternative sources of income. One needs to only look at Venezuela to imagine what a long-term decline in oil prices would look like. What’s more troubling is that we are not speaking of a crisis in one country or two, but rather we
are speaking of massive crisis in important countries that could destabilize the whole region. The question thus remains how these countries will respond and why? And by answering this question, we could form a better understanding, and most importantly, a plan to address this crisis.

IV. WHAT DETERMINES STATE RESPONSE?

As I indicated earlier, I specifically look at what will determine the rentier state response to the changing in the energy sector (the shift from oil to cleaner energy) in the Middle East. As a result, my research question is: what factors determine the response of rentier states to changes in energy production due to climate change? I argue that there are four factors that determine state response: state capacity, the presence and influence of environment civil society organizations, geopolitical conditions and the influence of international oil corporations. When it comes to state capacity I will specifically look at Bureaucratic and administrative capacity, such as, professionalism, insulation from political pressure, and efficacy in delivering government services, as well as the quality and coherence of the political institution. I argue that state with less state capacity will be less likely to invest in changing its economic system. I will also look at the presence and influence of environmental civil society organizations, mainly, whether or not environmental civil society organizations are present in society, and whether or not these organizations are influential. I argue that the presence of environmental civil society organizations – especially if these organizations were influential — will increase the likelihood of the state’s willingness to invest in changing its economic system.
On the other hand, geopolitical conditions, such as political and economic stability of the neighboring countries, might also determine the urgency and the ability of the rentier state to respond. For example, Saudi Arabia, which is dealing with threats from Qatar and Iran, is on a path of investing in alternative energy to gain more revenues for its military and to insure that its population will not descend into radicalization and rebellion when revenues from oil start to decline. Iraq on the other hand, a country already in chaos, is fighting battles against ISIS forces, forcing the country to keep producing oil to fund its expansive war. I argue if the state is in direct danger from threats or lack of stability of a neighboring country/ies then the state will more likely invest in changing its economic system. Finally, I argue that international oil corporations play an important role in determining the ability and the capacity of the state to respond. Saudi Arabia has a higher dependency from the influence of international oil corporations because the state controls its own oil production, and thus, the Saudi government has more freedom to make choices that are beneficial to it. I argue that if the state is in control of its oil production (such as the case of Saudi Arabia) then the state will more likely invest in changing its economic system. On the other hand, if the state is not in control of its oil production, but rather an oil corporation is in control of oil production in the country (such as the case of Iraq) then the state response will be influenced by the position of the oil corporation operating in the country when it comes to investing in changing the economic system of the state.
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V. CONCLUSION

In this paper I highlighted the concerns around the future of oil production in an increasingly warming climate, and how the shift from oil production could affect the stability and the survival of oil producing countries. For example, in 2014, the global oil market faced a major crisis that puts many of these rentier states in a very critical position. The International Energy Agency (IEA) triggered headlines by predicting that the United States would overtake Saudi Arabia to become the world’s leading oil producer by 2020. By June 2014, Brent crude was selling at $114 per barrel. As 2015 began, prices had plunged to $55 per barrel, and by 2016, prices were at $36. In response to this, oil-producing countries took different paths to address the lack of revenues. Saudi Arabia, supported by their strong position as the de facto leader of OPEC, decided to allow the prices to go down in order to drive competitors out of the market. They also started to invest in other forms of energy, as well as developing new strategies to diversify their economic system. Iraq, in the middle of a war on ISIS and confined by contracts with
international oil companies, continued to produce more oil. Venezuela, hit hard by the lower prices of oil, printed more money and lowered prices of goods, and thus, drove the country into inflation. While oil prices fluctuate as part of the global market economy, the future of oil is under threat due to climate change and the shift towards cleaner energy. As a result, the 2014 price crisis could be only the beginning of a longer-term pattern of decline in oil's importance.

In this paper, I attempt to highlight the larger picture of how governments in rentier states are responding – and why the nature of the response might be different among these different countries – to the changes in prices of oil and gas, and the shift to cleaner energy, due to the rising concerns around climate change. As a result, I ask what factors determine the response of rentier states to changes in energy production due to climate change? I argue that a country’s response is shaped by four factors: State capacity, the presence and influence of environmental civil society organizations, Geopolitical conditions and Influence of international oil corporations.

This research is important on several levels. First, understanding what are the factors that determine these three countries’ response to changes in oil production will provide us with insight into how other rentier states are going to respond, or not respond, to changes in their economic stability. Second, countries that would fail to adapt to these changes in the energy sector, will face a severe decrease in revenues and, as a result, a larger decrease of stability, bringing with it major security threats to the region and the world. As a result, knowing the limitations that effect a rentier state’s response will allow
us to develop policy and resources in order for us to help these countries make the transition towards a more diverse economic systems successfully.
VI. REFERENCES


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