THE EFFECT AND RESPONSIBILITY OF NATIONAL OIL COMPANIES

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ABSTRACT

Company domination now rivals the state's and with this power comes great responsibility. National oil companies or NOCs are among the main players in this realm of power.

These companies are defined by their relationship to their respective countries. To be considered a NOC the company must reflect significant ownership/investment by the state. As such, their actions are often a direct result of government intervention and influence.

Due to the utility of the assets these companies possess, worth roughly $3 trillion, there is a potential to affect every organism on earth (Manley, et al., 2019). Without restraint, the affect could be devastating. This restraint and other measures must be pursued in order to fulfill there responsibility.

This poster will examine the consequences of NOC actions in terms of climate change and economic growth/decay. Furthermore, it will provide an overview of the possible solutions that promote sustainability.

EFFECT

Climate Change

The largest national oil company, Saudi Arabia's Aramco, produced on average of 11,588 k boe/d in 2013 (Natural Resource Governance Institute, 2019). The production and use of fossil fuels accounted for 89% of global C02 emissions in 2018 (Client Earth, 2022);(IPCC, 2018). Carbon dioxide absorbs infrared radiation, meaning C02 allows sunlight into our atmosphere while also preventing heat from escaping - this is referred to as the greenhouse effect (NASA, 2023);(Tyndall, 1860). Besides emissions, many of these companies also pollute through effluent, including leakages (Tusser, 2021). The consequences of this pollution are undeniable and include (United Nations, n.d.):

- more frequent and harsher natural disasters,
- rising and warming sea levels,
- drought,
- land destruction (displacement), and
- loss of species and human life.

Economic Growth & Decay

National oil companies are major contributors to GDP and other proponents of a countries economic activity. The top 10 NOCs alone employed a total of 1,403,504 people in 2021 (Global Data, n.d.). Shareholders (including the government) incentivize continuous growth and increased output. This pursuit of profit results in increased labor demand, increased tax revenue, expansion of production possibilities, and overall increase in GDP (Stone, 2017). Due to the massive scale these companies operate and the way growth compounds, small increases make a huge difference. These small differences can ultimately lead to massive increases in GDP per capita and provides countries varying degrees of influence on the international stage. Unfortunately this growth often leads to income inequality (Berisha, et al., 2021).

RESPONSIBILITY

While the effects of oil consumption and production are widely accepted, the solution to these consequences are less clear. Many people have many ideas, but one thing is absolute, change must start now.

Within the Company

The pursuit of profit and expansion of the economy often limits the action these companies take, but some problems can and should be addressed within NOCs. The International Association of Oil and Gas Producers reported a 5% increase of hours worked in 2021. Simultaneously, the overall total recordable injury rate (including fatalities) increased to 0.77 - up 10% from the previous year (International Association of Oil and Gas Producers, 2021). NOCs must divert more funding to workplace safety including training, protective equipment, and research.

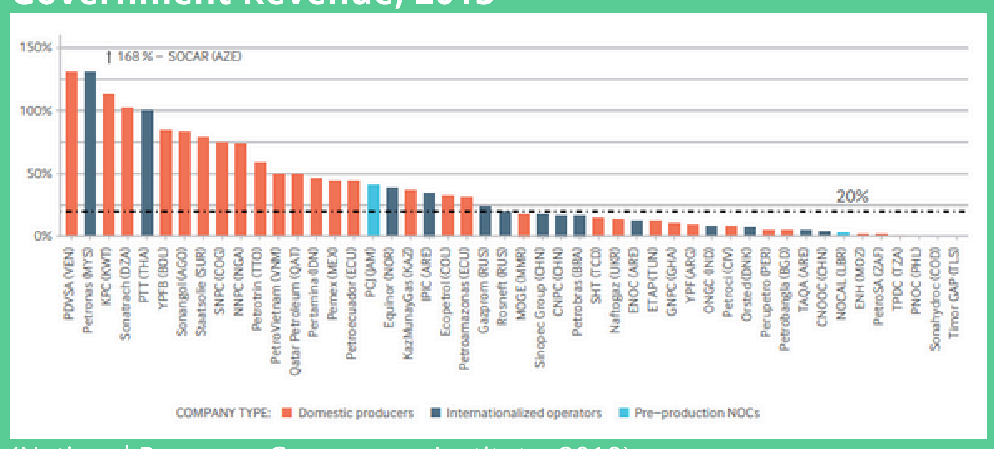
Outside the Company

Companies can not be expected to ensure sustainability and prevent negative consequences. Instead international agreements and domestic implementation and regulations must do the heavy lifting. For climate change this should consist of putting a price on carbon (incentivizing abatement) and subsidizing/investing in alternative technology (Nordhaus, 2021). This would remove the free rider fallacy and balance production with social costs, the price we all pay (Gaisford, 2023).

Using Aramco's production figures from 2013 and current prices of a barrel of oil equivalent. They were producing $369,888.96 worth of oil daily (National Resource Governance Institute, 2019). Despite this incredible production and wealth, Saudi Arabia's Gini Coefficient Index is 54 - which is very low (World Economics, n.d.). To combat income inequality, the countries and subsequent NOCs must enforce a living wage (Procon, 2023).

VISUALIZATION

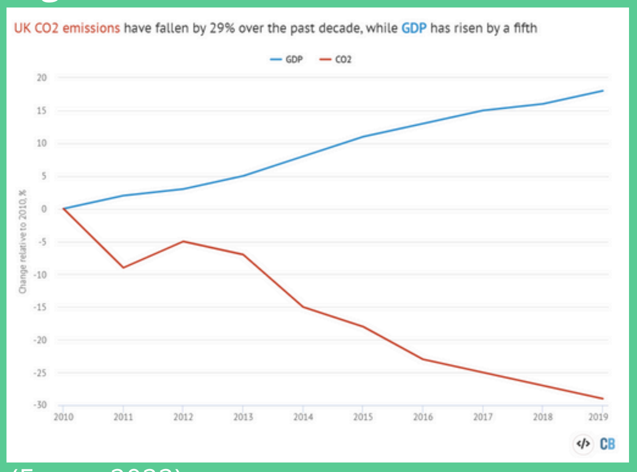
Figure 1: NOC Total Revenue as a Percentage of Government Revenue, 2013



(National Resource Governance Institute, 2019)

This figure depicts the magnitude of these companies and the influence there actions have on a countries economic activity.

Figure 2: UK Emissions and GDP, 2010 - 2019



(Evans, 2022)

This figure depicts how good environmental policy can lead to sustainable growth. The United Kingdom successfully implemented regulations such as taxes on landfills (Ekins, 2016). With this in mind, national oil companies can absolutely continue to make profits, while still considering the needs of future generations.

Conclusion

Oil consumption and production has now become a controversial topic, but whether you approve or disapprove, one thing is clear - it is here to stay. While it's use forever is not guaranteed, national oil companies will continue to fulfill demand for the foreseeable future. With this in mind, it is imperative that society and these NOCs cooperate.

This cooperation must include compromise or imbalance will prevail. Imbalance of wealth distribution, climate, worker safety, air quality, and influence - all must be addressed.

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