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Ghana's Oil Industries and Emerging Regulations; – Breaking the Resource Curse

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DECLARATION

I, Daniel Teye Aboah hereby declare, that this work submitted to the Faculty of Landscape and Society, with the exception of references of other researchers which have been duly acknowledged, is the result of my own research and that this dissertation has never been presented anywhere for any form of academic degree.

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ABSTRACT

The discovery of oil on the Ghanaian shores has been met with both a sense of opportunity as well as concerns on the possible repercussions of this discovery on economic growth and welfare. Today, the comparative advantages and relative abundance of a country's natural resource base to some extent will influence the standard of living of the citizenry under the prevailing leadership of that country. The recent discovery of resource reserves by multinational companies within the Jubilee Field, around the Western coast of the country has seen Ghana move to join the club of Gulf of Guinea oil-rich countries. This development and discovery of oil have further spawned deliberations as to whether or not Ghana is in the right position and will be able to avoid the resource curse, a consequence viewed by many as a hurdle to cross. As indicated in an annual report from the Norwegian supported Oil for Development Programme (OFD, 2019), the 'resource curse' generally refers to a situational paradox where countries heavily endowed with natural resources appear to deliver poor results and a lack of development across a range of performance indicators also compared to less resource-rich countries.

This research study thus sought to study the oil industries in Ghana and emerging regulations, examining the various macroeconomic policies which govern their activities and how these policies could possibly translate into averting the resource curse. The research work adopted a qualitative research design in collecting and analysing the data needed to help answer the research questions. Purposive sampling was employed to choose the needed respondents. Primary data was collected using a semi-structured interview schedule. The Environmental Governance System Framework (EGS) was used as a framework to understand the underlying principles which generally shape the processes of policy formulation and their outcomes.

In Ghana, the governance of oil resources has been the mandate of the Ghana National Petroleum Corporation (GNPC) and the Petroleum Commission (PC). Findings from the study indicate that there is further collaboration between the regulatory agencies and other governmental institutions and oil exploration companies as well as with non-governmental agencies and donor agencies such as the Norwegian Agency for Development Cooperation (NORAD).

In terms of a resource curse, the country is faced with the lack of transparency in distribution of oil revenues and the lack of transparency in the award of concession and drilling rights. The country has also experienced various underlying factors which have led to a reduction in oil revenues as well as the nation's GDP. These factors have been influenced by oil price fluctuations, a reduction in oil production due to technologies challenges and the intermittent oil disputes between Ghana and its neighbouring countries. Corruption, rent seeking and elite capture by some top public officials and politicians in the country have been unavoidable given the divergent agenda of the major political parties. The key governance discourses in Ghana have included civic environmentalism to a large extent and some form of green governmentality. Capacity building and the strengthening of institutions have been cited as being crucial to ensure the effective implementation of formulated policies, whilst streamlining agendas for the ruling governments. These approaches are considered as panaceas to effectively constrain the resource curse in Ghana.

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List of Acronyms

ACEP ……………………………..……….. Africa Center for Energy Policy

ARCO ……………………………………….. Atlantic Richfield Corporation

BBC …………………………….……... British Broadcasting Corporation

BOST ………………………….. Bulk Oil Storage and Transportation Company

BPD ………………………………………...……….. Barrels per Day

CNOOC ………………………..…. China National Offshore Oil Corporation

COVID ……………………….…………… Corona Virus Infectious Disease

CSI ……………………………………………….. Corporate Social Investment

CSOs ……………………………….……..… Civil Society Organizations

DFID ………………….....……….. Department for International Development

DWCTP ………………………………...…… Deep-Water Cape Three Points

EIA …………………………………..…. Environmental Impact Assessment

EITI…………………….....…… Extractive Industry Transparency Initiative

EPA ……………………………….…….. Environmental Protection Agency

GCMC ……………………………… Ghana Cylinder Manufacturing Company

GDP ……………………………….…………………… Gross Domestic Product

GIZ ………………………….. German Agency for International Cooperation

GNGC ……………………………………….. Ghana National Gas Company

GNP ……………………………..……………….. Gross National Product

GNPC ……………………...……..Ghana National Petroleum Corporation

GOIL ………………………………………..… Ghana Oil Company Limited

HDI ……………………………..………… Human Development Index

IDEG ……………………………………Institute of Democratic Governance

IEA ………………………….….…….……. Institute of Economic Affairs

ITA ……………………………………..... International Trade Administration

ITLOS ……………………………. International Tribunal for the Law of the Sea

MESTI……..…. Ministry of Environment, Science, Technology and Innovation.

MOFEP ………………………..….. Ministry of Finance and Economic Planning

NDC ………………………………………….. National Democratic Congress

NGO ……………………………………..…… Non-Governmental Organization

NNPC ………………………………..Nigerian National Petroleum Corporation

NORAD ……………...…….. Norwegian Agency for Development Cooperation

NPP ………………………………………………………… New Patriotic Party

NRGI ………………………...……… Natural Resource Governance Institute

OFP ……………………………………….....Oil for Development Programme

PC ………………………………………………………… Petroleum Commission

PNDC …………………………...…… Provisional National Defence Council

PIAC ……………………………. Public Interest & Accountability Commission

PRMA ………………………………….. Petroleum Revenue Management Act

SEA ……………………………….....…. Strategic Environmental Assessment

SFP ……………………………..………………. Societe Francaise de Petrole

TEN …………………………………..….. Tweneboa, Enyenra and Ntomme

TOR ……………………………………………….………Tema Oil Refinery

UNCED ……….. United Nations Conference on Environment and Development

UNDP …………………...……….. United Nations Development Programme

VBP ……………………………………………….. Voltaian Basin Project

WRICAIT …………World Resources Institute Climate Analysis Indicator Tool

CHAPTER ONE

1.0 Introduction

Wouldn't stifled economic growth under good governance be considered a paradox? The discovery of oil on the Ghanaian shores has been met with both a sense of opportunity as well as concerns on the possible repercussions of this discovery on economic growth and welfare. These have been issues to contend with, given the political processes and institutions which shape the prevailing resource regimes in the country (Mohan *et al.,* 2018). Today, the comparative advantages and relative abundance of a country's natural resource base to some extent will influence the standard of living of the citizenry under the prevailing leadership of that country. The question arises whether or not the availability of such natural resources will definitely serve the nation ideally? Or there could be negative trickles of other concomitant challenges apart from the obvious benefits. How then can these challenges be addressed to achieve an overall economic prosperity? The recent discovery of resource reserves by multinational companies within the Jubilee Field, around the Cape Three Points on the Western coast of the country has seen Ghana move to join the club of Gulf of Guinea oil-rich countries. This development and discovery of oil have further spawned deliberations as to whether or not Ghana is in the right position and will be able to avoid the resource curse, a consequence viewed by many as a hurdle to cross (Ayelazuno, 2014). Andrews & Siakwah (2020) further add that Ghana's extraction of hydrocarbons and the associated developmental outcomes have strong linkages to global structures.

As indicated in an annual report from the Norwegian supported Oil for Development Programme (OFD, 2019), the 'resource curse' generally refers to a situational paradox where countries heavily endowed with natural resources appear to deliver poor results and a lack of development across a range of performance indicators also compared to less resource-rich countries. This has been the case for most countries in Africa, with Ghana not being any exception (Ayelazuno, 2014). These resource-rich countries according to the report are characterized by corruption, lack of accountability and mismanagement of the resources. This has resulted in the citizens unable to reap the benefits that such natural resources could typically provide. Specifically, with the discovery of oil in many countries across the world, there has been a resultant "wash away" of the initial democratic setting and the institutional structures initially in place to foster an all-inclusive and representative approach to governance (Van Gyampo, 2011). According to the author, this "resource curse" syndrome usually makes itself evident through the disregard of governments for collective decision-making in a participatory democracy. Andrews & Siakwah (2020) add that there are networks of environmental, political, social and economic underpinnings, processes, actors, actions and dynamics of power which interact to determine how a country's natural resources could be a blessing or be a curse. The technical challenges of monetary and fiscal policy decisions formulated by policy makers have also caused this "resource curse" (Van Gyampo, 2011). Additionally, as emphasized by Obeng-Odoom (2019), policies from the Ghanaian government concerning local businesses and provisional services offered to multinational oil companies give rise to a systematic inequality and exploitation of labour.

Ghana, as a developing country, is endowed by various natural resources with the discovery of oil being a case in point to behold. The country is promising with respect to the resource amounts available. However, the anticipated and much-dreaded occurrence of the resource curse has raised a number of questions. The discussions have evolved ever since Ghana discovered and explored oil back in 1896 and further deciding to start its first modern commercial production of oil in 2010. The discovery of oil in commercial quantities in 2007 and the quest to commence commercial productions of oil has spawn a number of studies in their wake advocating for practical courses to avoid resource curse challenges (e.g. Andrews & Siakwah (2020); Siakwah (2018); Obeng – Odoom (2019); Ayelazuno (2014); Mohan *et al.*, 2018). These studies mostly appear to be hypothetical and normative in nature, but they table the request for proper management of the revenues to be accrued from the oil extraction by the Ghanaian government to ensure appropriate accountability and efficiency for the development of the economy and general welfare. These studies have failed to delineate how the available resource regimes shape the nature of the oil concessions and the role of the available macroeconomic policies in modifying oil exploratory activities. Thus, one should look at the impacts of these activities for different regions of the country. This study seeks to underscore the means of breaking the resource curse which has characterized the discovery of oil in Ghana. This is in particular through the available macroeconomic policies emphasizing how different local regions within the country can be developed. This would also help underscore the relics of indicators and root causes of poor development within those regions and their ripple effect nationwide.

1.1 Problem Statement and Justification

Since Ghana's commercial production of oil started in 2010, the waves of this exploratory activity has majorly seen a nosedive failing to translate the operations into much anticipated developmental trajectories and welfare gains of the country. The discovery of oil raised the hope of increased economic prosperity and growth through a push up of the nation's Gross Domestic Product (GDP) by 6%. This sent across a strong signal of setting the pace for industrialization and subsequently improving the living standards of the citizens. This discovery, the leadership of the country described as a machinery that would enable the country Ghana *"to fly"* and grow into an "African eagle" in economic terms (BBC, 2007). This dream of having increased economic prospects however failed to materialize and now seems to be a mirage. The failure to reach the desired goals could be attributed to the poor macroeconomic policies which have resulted in the shift of the country's focus from industrializing the economy (increasing production of essential commodities needed by the country in order to reduce the import of goods). This is evidenced in a study by Andrews & Siakwah (2020) where a good number of cases examples show that resource-rich countries mostly tend to be susceptible to the well-known 'Dutch Disease' due to their heavy reliance on the export of natural resources such as oil for generating foreign exchange. This occurrence, as observed in Ghana, has caused a lack of attention to other sectors of industry such as manufacturing leading to a de-industrialisation of these sections. Thus, despite the abundance of resources, the lack of development of other sectors of the economy such as production and industrialization has reduced the overall development processes and economic growth within the country (occurrence of the Dutch Disease).

With a present GDP growth rate of 0.8%, an unemployment rate of 4.5, a quite high Government debt ratio to GDP (78%), and a negative Government budget of -13.8% (Trading Economics, 2021), Ghana's indicators of economic growth show poor results.

Undoubtedly, a point worthy of mention is the fact that the COVID'19 pandemic had its fair share of strain on the country's economy. Findings from a study conducted by Tanoh Aduhene and Osei-Assibey (2021) indicated that an estimated 42,000 Ghanaians had lost their jobs just two months into the pandemic. The tourism sector according to the authors also lost revenues in excess of $171 million dollars over a period of three months. This was characterized by closure of tourist destinations coupled with partial lockdowns within the country. Citing a growth rate of 1.1% in the year 2020, a World Bank report in 2021 indicates that the economy of the country had shrunk by 3.2% in the second quarter and by 1% in the third quarter of 2020.

This has further thrown the country into a recession, an event ironically occurring for the first time in 38 years and despite the increased production of oil in recent times. These can be used as elements of a resource curse. This study however does not look into details how the COVID'19 pandemic has impacted the Ghanaian economy and its linkage to the resource curse syndrome. This has been necessitated given the scope, the timing and the general objectives of the study.

Never seeing the light of hope and development, Ghana has had the challenge of properly managing the nation's natural resources whilst channelling proceeds and returns into developmental gains (John, 2010). As emphasized by Andrews & Siakwah (2020), the means in which resources are exploited, appropriated and utilized have the tendency of generating problems under specific situations. This has been an issue to grapple with and still persists today as emphasized in Mark John's (2010) work, *"Ghana not safe from the oil curse yet".* With a loan of US$38 million and US$15 million offered to Ghana by the World Bank and Norway respectively for purposes of capacity building, it is evident that the country is treading the path of deriving much from its discovery of oil. This loan was given in a bid to address Ghana's institutional as well as human resource problems to obtain the full benefits of wealth the oil could generate (Ayelazuno, 2014). According to the World Bank, Ghana's oil wealth "has the potential to bring significant economic development opportunities to the country". It also has "multiple benefits beyond the short-term improvement in fiscal balances". It is further cited that onshore gas-based industries in Ghana particularly present opportunities to diversify the Ghanaian economy for the anticipated growth and development of the country (World Bank, 2010, p. 1). The Bank still contends that like many other resource-rich countries within Sub-Saharan Africa, Ghana is served with challenges to achieving this desired feat. Firstly, the country is constrained in terms of the capacity to properly manage the revenues and derivative benefits from exploring these resources in order to achieve stable and sustainable economic growth. Again, Ghana is faced with several potential drawbacks due to poor governance structures posing the perils of social dissatisfaction. Environmental degradation due to poor sectorial foresight, impractical expectations and lack of good communications among stakeholders in oil exploration have equally been worrying issues (World Bank, 2010, p. 1). As discussed in environmental assemblage, environmental degradation is characterized by pollution in oil exploration and is considered to have linkages with loss of livelihoods (Andrews & Siakwah, 2020). The World Bank hopes to assist Ghana in building the nation's institutional

capacity to manage its oil wealth. It also aims to train and produce a skilled labour force for the oil industry through what it refers to as the Oil and Gas Capacity Building Project.
Even after the aid from the World Bank and from Norway, Ghana as a resource-rich country, still appears to have failed in grinding poverty and improve living standards of its citizenry. *"We don't have a track record of managing the revenues from resources particularly well,"* the words of Emmanuel Akwetey of the Accra-based Institute of Democratic Governance (IDEG), as cited in (John, 2010).

The question then arises on the possible loopholes within the country's lines of action in a quest to develop and to ascertain what the country is not doing right in order to change the practical courses of action. Accusing fingers have mostly pointed at poor governance structures, coupled with the weak policy instruments which have defined the resource regimes and the economic use of the environment. In a bid to address these issues around paradoxes of a 'Resource Curse', this study will look further into how the utilization of power resources and outplay of policy instruments could have ensured economic prosperity and equity in the distribution of proceeds from oil resources. Emphasis is also laid on how environmental compensations are accounted for regionally for the externalities which occur due to oil exploration and production. This research study thus seeks to study the oil industries in Ghana and emerging regulations, examining the various macroeconomic policies which govern their activities and how these policies could possibly translate into averting the resource curse.

1.2 Conceptualizing Resource Curse within the Study

Emerging in topical debates within the 1950s and 1960s, the term resource curse was first used in the year 1993 to describe the idea that natural resources were more of a curse than an economic blessing to resource-rich nations. As expounded by the Natural Resource Governance Institute, NRGI (2015), the Resource Curse is a scenario characterized by the inability of countries which are endowed with abundant natural resources to fully reap benefits from the resources while translating this wealth into meeting the needs of the citizens. Andrews & Siakwah (2020) describes the curse as a multi-faceted occurrence which is produced as a result of the interactions between local, national and global economies evidenced in different geographies.

This study conceptualizes the term resource curse to envelope issues of corruption and the embezzlement of funds, the lack of transparency and accountability, the misapplication and misappropriation of funds as observed by Hicks (2015). It further borders around the bottlenecks within the governance system in the country. The poor development of local content (in job creation, the multiplier effects within the economy) which have given rise to the increased levels of unemployment due to a lack of industrial development in Ghana. This narrative is worsened due to the absence of a democratic setting in processes of governing the use of the country's natural resources. This is evidenced in the lack of creation of a welfare state. These have given the linkage to the occurrence of a resource curse due to the lack of improvement of the lives of the citizens within the country. In the theory of a resource curse and also as a function of a globalized assemblage, the structures of governance within the extractive industry is crucial (Andrews & Siakwah, 2020). According to the authors, the integration of Ghana and Africa into the global economy is important to properly delineate the concept of the resource curse.

As affirmed by the Ayres (2014) in his work, *"The Hidden Shame of the Global Industrial Economy"*, corruption is perpetuated by corrupt government officials in natural resource exploration by conniving with companies which extract these resources. This, according to the author is done with impunity and a disregard to both national and byelaws as well as the overall objective to these laws as implemented for the indigenous people and greater good of the country.

On aspects of distribution, it is generally assumed that the abundance of natural resources should enhance living standards of the citizens. It is evidenced in the creation of a welfare state or a distributive state as observed in the case of Norway where the Government cushions critical sectors of the economy by providing education, healthcare, access to water, sanitation, infrastructure and other vital public services essential for the general wellbeing of its citizens and also its ability to increase production and general values.

The study also draws from the lesson of a resource curse from the example of the Spanish Empire where the massive wealth it generated in the 16^{th} century was obtained from its colonies which were rich in resources in Southern America. As emphasized by Baten (2016), the huge inflow of cash from the exploitation of silver became a disincentive which toppled down the industrial development of Spain further leading to the collapse of the great exploits of the

Spanish Empire. Similarly, Ghana's case of a resource curse could be observed due to the lack of industrial development and investment in other sectors which have retarded the expected economic growth (Dutch Disease).

A point worth mentioning is the idea of the carbon curse which holds that countries heavily endowed with fossil fuel resources tend to release more carbon dioxide to obtain a commensurate amount of economic returns as compared to countries which do not have abundant fossil fuels. The carbon curse has been one of the concomitant challenges posed by the resource curse due to the carbon-intensive production sector borne by these fuel-rich nations. These countries are mostly inundated with heavy emissions and the generation of negative environmental externalities necessitating the government of these nations for instance to provide fuel subsidies to citizens. It is important however to mention that, this study does not consider the carbon curse as an indicator of a resource in Ghana due to its bearing and manifestations globally. Additionally, in Ghana, the factor of a carbon curse does not play a significant role or have a significant impact on the outcome of policy instruments and formulations, hence its exclusion.

Generally, the main indicators for the occurrence of a resource curse according to records from Wikipedia have predominantly been the evidence of the Dutch Disease, issues with distribution as well as factors of incomes and employment. Other crucial factors of violence and conflicts, democracy and human rights, human capital as well as revenue volatility have been additional indicators of a resource curse.

In Ghana, the perceived checklist of a resource curse considering the above listed indicators have included;

- Issues of corruption, nepotism and the lack of transparency and accountability.
- Poor performance in GDP
- Inequity in distribution of oil proceeds and the lack of a welfare state.
- Lack of exploration and contract transparency of both local and foreign oil companies and investors.
- The lack of industrialization and development of local content in the country (job creation, multiplier effect).

These further result in issues of unemployment and reducing income levels subsequently impeding the quality of life of citizens within the country as identified by Hicks (2015).

1.3 Research Objectives and Questions

1.3.1 General Research Objective

The main objective of this study is to Assess Ghana's oil governance system and to what extent Ghana is able to avoid various resource curse effects now and in the future.

1.3.2 Specific Research Questions

i) What are the different structures and processes of governance in Ghana concerning oil policies?

ii) What are the elements/indicators of the resource curse as experienced in Ghana?

iii) What are the key relevant features of the governance discourses in Ghana?

iv) What are Ghana's planned policies to address the governance issues?

CHAPTER TWO

2.0 Literature Review

2.1 History of Oil Development and Governance in Ghana

The discovery of oil has been a major breakthrough for many oil producing countries and a cornerstone for the development of these countries. The discovery of oil in Ghana is as well a potential blessing to the nation, it has painted colours of hope and it has further enhanced standards of living for its citizenry. Past events have shaped and largely influenced the story of Ghana's current oil industries in relation to its governance and the extraction of oil resources. Several milestones have marked various events since the discovery of oil resources in the country. The tantalizing question is raised, whether Ghana as a nation has taken lessons to put things right in achieving significant progress with this discovery, given the account of its history.

Reports from the Ghana Geological Survey indicate that the exploration of oil and gas in Ghana began onshore in the year 1896 within the Tano basin in the Western region of Ghana (Petroleum Commission of Ghana, 2020). The exploration indicated evidence of oil and gas seepages discovered by the early explorers within the area. Companies such as the West Africa Oil and Fuel Company, African and East Trade Corporation and various international oil companies such as the French Oil company, Societe Francaise de Petrole (SFP), drilled wells on various concessions for oil exploration between the years 1896 and 1925 (Petroleum Commission of Ghana, 2020). The years between 1925 and 1956 marked a 30-year period of cessation in oil exploration when the operating private companies focused on the existing oil concessions without bidding for more. The Gulf Oil Company thereafter took up an onshore licence and further undertook oil explorations in the country. From 1896 until the country gained independence in 1957, a period of 61 years, a significant number of wells were drilled. For instance, in the Onshore Tano basin a total of 17 onshore wells were drilled during that period (Petroleum Commission of Ghana, 2020).

Formed in the year 1957, Ghana's Ministry of Energy was charged with the responsibility of shaping energy policies, implementing, monitoring, coordinating, evaluating and supervising activities within the energy sector (Ministry of Energy, 2017; https://www.energymin.gov.gh/about). Efforts aimed at commercializing Ghana's oil exploration continued throughout the 1960's. The desired feat was realized in the year 1970 when oil reserves were discovered offshore the town of Saltpond by Signal Amoco Company

(Asamoah, 2013a, 2013b). This discovery at Saltpond however could generate a significant amount of oil, hence was unable to satisfy Ghana's energy demands. This occurrence compelled the country to fall on oil imports to meet domestic and industrial needs (Integrated Social Development Centre [ISODEC] 2014; Ministry of Finance and Economic Planning [MOFEP], 2014; Siakwah, 2016). The overthrow of Kwame Nkrumah's government which caused the retreat of the Soviet and Romanian teams in 1966 saw Ghana's transition from onshore to offshore oil exploration in the year 1967. More private oil companies were brought in to carry out oil exploration in the country (Petroleum Commission of Ghana, 2020). These companies showed an interest in the continental shelf and this marked the commencement of offshore exploration in Ghana. The entire shelf within the country was divided into 22 blocks and fully licensed in 1968. Between the years 1972 and 1979 the country witnessed an intensified and continual exploration of oil in commercial quantities (Petroleum Commission of Ghana, 2020). The years following 2001 marked a crucial epoch in Ghana's history of exploration and exploitation of oil (Siakwah, 2017b). Private companies such as Kosmos Energy, Hess Corporation and Tullow Oil intensified the commercial production of hydrocarbons in the country when they acquired exploration and production rights over areas in deep water. Oil explorations were thus intensified between the years 2001 and 2007 (Petroleum Commission of Ghana, 2020). These developments necessitated the formulation of a taskforce to properly oversee the commercialization of Ghana's national gas infrastructure system. The Ghana National Gas Company (GNGC) was thus established by the Ghanaian government and commissioned in February 2011. In July 2011, Ghana Gas was rendered a fully-fledged limited liability company mandated with the responsibility of building, owning and operating the needed infrastructure to harness, process, transport and market natural gas resources within the country (Ghana Gas, 2020). These developments were made in efforts by the Ghanaian government to develop local content and to promote activities of indigenous companies in the oil and gas industry. This was based on a recommendation made by the established taskforce to enhance the development of the nation's oil and gas (Ghana Gas, 2020; http://www.ghanagas.com.gh/history). Additionally, an Act of Parliament in 2011 (Act 821) formed the Ghana National Petroleum Commission to coordinate policies which govern the upstream petroleum sector whilst regulating and managing the utilization of the nation's petroleum resources (Petroleum Commission of Ghana, 2020; https://www.petrocom.gov.gh/exploration-history/).

Today, considering the rewarding returns coupled with the enabling environment oil development in Ghana, the discovery of oil in the country has attracted several oil companies from the Western world who have come in to explore these oil resources. These companies include Exxon Mobil, an American company, Tullow Oil, an Irish company, and the Norwegian's Aker Energy who are currently in the process of procuring businesses owned by Hess Corporations in Ghana (Owusu Adjapong, 2018).

Although the prices of oil internationally have been liable to fluctuations on the world market, the oil and gas industry in the country (Ghana) has maintained a steady pace of growth, as compared to other countries extracting oil and gas on the continent. Undoubtedly, the discovery and onset of oil production in the country has sent strong signals of hope to the Ghanaian populace who hoped that the proceeds obtained from several oil production fields would increase oil revenue and push the nation into a higher welfare level (Owusu-Adjapong, 2018). As far back as the late 1960's, Alan Gelb and Associates (1988) observed that oil represented the largest among internationally traded commodities displacing coffee from that position and it became a great source of wealth for many countries. As evident, oil and gas resources have aided many developed countries to attain economic growth and has been an engine of development for these countries. The potential importance of oil and gas resources for development can thus not be overemphasized. It came as no wonder when Africa was tipped to experience a quantum leap in development following the discovery of oil. Particularly in Ghana, the Oil for Development Program which was launched in 2005, was meant to assist Ghana to properly manage its oil resources. Despite promising efforts to generate the most out of the oil resources present in the country, there are still challenges that stand in the way of Ghana achieving economic prosperity and growth. These challenges are mostly attributed to political instabilities as well as corruption on the part of government officials to properly allocate returns from the resources in these countries. The ripple effect of these challenges mostly results in poor exploration and production rights, lack of contract transparency, corrupt revenue management and sharing, the lack of environmental and social protection as well as the absence of transparency and accountability according to Hicks (2015) in her book *"Africa's New Oil"*.

Table 1. A Summary of the Chronicle of Events in Ghana's Oil Exploration (1957 – 2015)

YEAR	SIGNIFICANT EVENT
1957	Formation of the Ministry of Energy and Petroleum (Ministry of Energy, 2017; https://www.energymin.gov.gh/about)
1896	The begin of oil and gas exploration onshore (Petroleum Commission of Ghana, 2020); https://www.petrocom.gov.gh/exploration-history/
1896 – 1925	Drilling of wells on various concessions for oil exploration (Petroleum Commission of Ghana, 2020)
1926 – 1956	Marked a 30 – year period of cessation in oil exploration (Petroleum Commission of Ghana, 2020).
1957	At the point of attaining independence after 61 years of oil exploration since 1986, the country had a significant number of wells drilled (Petroleum Commission of Ghana, 2020).
1966	Departure of Soviet Union and Romanian teams due to the overthrow of Kwame Nkrumah (Petroleum Commission of Ghana, 2020); https://www.petrocom.gov.gh/exploration-history/.
1967	Transition from onshore to offshore oil exploration (Petroleum Commission of Ghana, 2020); https://www.petrocom.gov.gh/exploration-history/.
1968	Fully licencing and the division of the entire shelf within the country into 22 blocks (Petroleum Commission of Ghana, 2020); https://www.petrocom.gov.gh/exploration-history/.

1985	Formation of the Ghana National Petroleum Corporation (GNPC) under the control of the Ministry of Energy to enhance commercial exploration of oil (Kastning, 2011).
2001	The introduction of advance technology in oil exploration through the acquisition of 3D seismic data which fostered the shift from shallow-water to deep-water drilling. This milestone began to attract private and transnational oil companies from around the world to explore oil in Ghana (EPA, 2011).
2001 – 2007	Intensification of the commercial production of hydrocarbons over areas of deep waters (EPA, 2011).
2008 – Present	The influx of foreign oil companies (eg. From America, Norway and Ireland) (Petroleum Commission of Ghana, 2020); https://www.petrocom.gov.gh/exploration-history/
2010	Proposal of a 'Petroleum Revenue Management Bill' by the Government of Ghana (Kastning, 2011).
2011	Establishment of the Ghana Gas Company to build, own and operate the needed infrastructure to harness, process, transport and market Ghana's natural gas resources (Ghana Gas, 2020)
2011	Creation of the Petroleum Holding Fund, Ghana Stabilization Fund, Ghana Heritage Fund and Ghana Petroleum Wealth Fund (Bank of Ghana, 2022; https://www.bog.gov.gh/ghana-petroleum-funds/about-petroleum-funds/).
2011	Formation of the Ghana National Petroleum Corporation (GNPC) from the Act of Parliament (Act 821) (Petroleum Commission of Ghana, 2020; https://www.petrocom.gov.gh/).

2011	Formation of the Public Interest and Accountability Committee (PIAC) (Source; Natural Resource Funds, 2013. https://resourcegovernance.org/sites/default/files/NRF_Ghana_Jan2013.pdf)
2015	Amendment of the Petroleum Revenue Management Act, into Act 893 (Bank of Ghana, 2022; https://www.bog.gov.gh/ghana-petroleum-funds/about-petroleum-funds/).

As presented above, these were the significant events which have occurred within the country since 1896, when Ghana first discovered and began the exploration of oil until today. These events mark significant milestones which have characterized the exploration of oil and gas within the country. The discovery of oil and gas has been a promising unearthing of natural resources in Ghana. this however brings to the forefront, the need to efficiently govern the use of the available resources for the greater good of the country.

A view held by Karl (2007) cited in the book *"Africa's New Oil",* Hicks (2015) asserts that less developed countries should not extract their oil resources until they reach a point where they have a strong government and a system which displays for accountability and judicious use of the resources. If not, the syndrome of the oil curse cannot be eluded. Could this approach be a rational line of attack to breaking the resource curse?

This study seeks to explore other approaches to achieving economic growth and development in a bid to break the resource curse in these developing countries mainly through the formulation and implementation of appropriate macroeconomic policies and practices. These are essential to regulate activities of both the oil industries and the emerging regulations as well as government officials who oversee the management of oil resource whilst overcoming its technological and financial handicaps seen as a major challenge by Ayelazuno (2014).

2.2 Management of Ghana's Oil

Quoting from the *"New Africa Oil Book",* there still persists a global crave for oil and this want appears to be on the rise despite the current ongoing efforts and advocacies to produce energy from alternative sources which are renewable in nature (Hicks, 2015). Reports coming from BP's publication, *"Energy Outlook 2035"* further makes a trajectory that the consumption of energy globally is expected to rise 41% between 2012 and 2035. 95% of this energy demand is expected to emanate from emerging economies (BP, 2014). Thus, the discovery of oil and gas resources may be a possible way out of poverty in particular for most developing countries which are impoverished and have low standards of living of its citizenry. The definition given to "developed" economies has metamorphosed over the years. In the 1960's it included increased GDP, per-capita income, advancement in technological infrastructure, Gross National Product (GNP) and a diversified industrial and service sectors (Andrews & Bawa, 2014). In recent times however, the factors of human wellbeing in the form of improved healthcare, happiness index, education, housing and environmental sustainability have been incorporated into the definition given to developed economies (Andrews & Bawa, 2014).

Ghana is believed to be doing fairly well in the management of its oil resources by the passage of laws addressing various issues which tend to cause problems of the resource curse in the country (Hicks, 2015). This, according to the author, the country does by ensuring transparency in the flows of revenues, controlling expenditure as well as enhancing the active participation of the citizenry in this emerging field. A fine part of the story is the fact that Ghanaians are usually fed with up-to-date reports on how leaders within the country make use of the mandate they are given to properly allocate returns from the oil production. The passage of the Right to Information Bill for instance is a step being taken by the Government of Ghana to deeply entrench the freedom of the press and enhance transparency in governing the nation's oil wealth. More so, the media and civil societies within the country act as vigilant groups and watchdogs on how the government disburses oil proceeds. They also further go the extra mile to probe into questionable agreements which appear to abuse laws governing operations within the industry (Ayelazuno, 2014). A critical example of this action is one pursued by the Ghana Oil Watch which undertakes research on an extensive range of operations within the oil field. It makes this essential information available on its website, particularly on revenues the government receives, how it is distributed and the statistics on the crude oil hauled up as well as its value. Furthermore, civil society groups within the country such as the Revenue Watch Institute, the Extractive Industry Transparency Initiative (EITI) and the Institute of Economic

Affairs (IEA), among others operate freely in the country with their quest to promote transparency and accountability in the use of the oil returns. These checks and balances have generally influenced the management of oil-wealth of the country in line with the best practices of transparency and accountability (Ayelazuno, 2014).

A point worth mentioning as a progressive stride made by the Government of Ghana is the formulation of two important legal and regulatory instruments to promote transparency and accountability in managing revenues it generates from oil: firstly, the Petroleum Revenue Management Act 815, 2011 (PRMA); and secondly, the Petroleum Commission Act 812, 2011. The Petroleum Holding Fund was formed as the main account into which revenues are paid. Additionally, the Ghana Stabilisation Fund was formed to store up savings against future shortfalls in oil returns. The formation of Ghana Heritage Fund and further formulation of relevant policy frameworks have been essential to capture and effectively manage oil returns as well as enhance local participation of the citizenry in the industry. As necessitated, the year 2015 witnessed the amendment of the Petroleum Revenue Management Act, into Act 893 to ensure that revenues generated from petroleum resources in a judicious, responsible, transparent and accountable manner. This, the Act aims to achieve through the regulation of the means within which revenues from petroleum revenues from upstream and midstream petroleum operations are collected, allocated and managed (Bank of Ghana, 2022; https://www.bog.gov.gh/ghana-petroleum-funds/about-petroleum-funds/). In terms of the distribution of petroleum revenues, the Bank affirms according to Section 16 of the Petroleum Management Act that disbursement of all forms is only done from the Petroleum Holding Fund which is a major reservoir for all incoming eligible of petroleum revenues (Bank of Ghana, 2022). These are all efforts aimed at ensuring transparency and accountability whilst improving living standards of the citizenry (Ayelazuno, 2014). The big question lies in the implementation of these astute policies and how effective they are in addressing the challenge of abating a resource curse. The evidence of which are expected to be a translation of this wealth gained into growth and development of the economy seen in improvement in the quality of life of the citizenry. A valid concern as expressed by Andrews & Siakwah (2020) is whether or not the democratic processes being pursued by the Ghanaian Government is an end in itself, or particularly if it is a means to an end. In other words, the authors are questioning if the enactment of various policy instruments and the establishment of a democratic setting necessarily connote an equitable distribution of oil proceeds for the benefit of the entire citizens.

This therefore brings to bare the prominence of effective policy implementations as formulated within the country, of which Ghana needs to pursue.

As indicated by Ayanoore (2020), the implementations of policies are situated within the government's political commitment to govern the oil in the nation's interest. According to the author, the commitment to implement policies are deeply seated within varying forms of politics and relational powers within the political system. Hence, great commitment from the Ghanaian Government is needed if the goal to ensure economic growth and development through oil is to be achieved. There has been a good number of calls seeking for reforms within the public sector amidst the ongoing political patronage and clientelist conduct performed by various agencies. These have included requests for the Ghanaian government to build the capacity of its institutions. Additionally, a point made by Andrews and Siakwah (2020) affirms that 10 years down the lane, Ghana's oil policies have only focused on new discoveries through its award of oil blocs rather than investing in other value-added mechanisms. This occurrence has reinforced Ghana's continual dependence on the export of unrefined oil. It is also advocated that Ghana develops structures that will create the disincentive for state capture and abuse due to partisan actions perpetuated mostly by political actors (Gyimah-Boadi (2009) as cited in Andrews & Siakwah (2020)).

A crucial example of a case study expounding the political structures and economic machineries which shape the outcome of oil revenue usage is one expounded by Hardus (2014) in her publication titled, *"Chinese National Oil companies in Ghana",* which expounds on the cases of CNOOC and Sinopec. According to the author, China's National Offshore Oil Corporation failed in 2010 to procure a stake in the Jubilee fields after partnering with Ghana's national oil company. The company however succeeded in their second attempt which saw the Chinese state-owned oil company, Sinopec, perforate through Ghana's oil sector. This demonstrates the level of coordination between the Chinese State actors and the Ghanaian authorities and the dynamics of political processes in influencing state actions. The acquisition by Sinopec was indirectly made through an off-taker agreement associated with a $3-billion-dollar loan which was offered by China Development Bank, a Chinese state-owned agency, operating for economic gains (Hardus, 2014). Political settlements and coalitions are further brought up in instances such as these, where the elite within societies employ both formal and informal channels and means to contest for power to promote their crude individual interests or group and social interests based on their motivations and actions. It brings to bare, the rational motive and the role of the state as well as foreign investor roles in determining the use, disbursement and allocation of petroleum resources and revenues within the country. In Ghana, as emphasized by Mohan *et al.,* (2018) the motives of the two major political parties have influenced and continue to influence approaches used in the allocation and distribution of oil and gas resources. According to the authors these two major political parties in Ghana which are the National Democratic Congress (NDC) and the New Patriotic Party (NPP) hold differing standpoints in driving and meeting the country's developmental needs. The NDC holds a socialist idea which believes in empowering individuals and views the state as a key machinery in bringing about this developmental gains in an inclusive manner. In such an instance, the funds generated from oil and petroleum resources are centralized within the state's coffers with the focus on equitable distribution to ensure that citizens are able to improve their living standards through improved social conditions and infrastructure. On the other hand, the NPP sees the state as a capitalist entity and believes in a market-based and an economic tailored approach to improving the lives of citizens in the country. Under such a norm, the state provides improved economic conditions which would in turn connote a commensurate increase the living standards of citizens through enhanced economic activities (Mohan, *et al.,* 2018). These underpinnings have largely influenced the Government of Ghana's direction in the usage and investment of oil and gas resources and proceeds within the country.

Over the years, the curse thesis has extended to include how natural resources facilitate and are associated with poor governance, corruption, excessive rates of government borrowing and debt, currency movement, the desert and reduction in manufacturing and agricultural sectors, degradation of the environment and violent conflicts (Alexeev & Conrad, 2009; Watts, 2010). This is therefore crucial that attention is given to Richard Auty's (1993) caution describing the curse thesis as a tendency and not just a law. Other varied dimensions of the curse have also been discussed both in theoretical and empirical literature (Andrews and Siakwah, 2020). Andrews and Siakwah (2020) have identified four major underpinnings to aid in providing a more nuanced and multi-scalar understanding of factors underlying oil development in Ghana. These include an accumulation of political, economic, social and environmental complexes, processes, actions, actors and power dynamics which coalesce to determine whether a country's natural resources become a "blessing" or a "curse". As emphasized by Andrews & Siakwah (2020), the problem of a resource curse is fuelled by political, social, environmental and economic underpinnings. This renders the resource curse to be multi-layered in nature. According to the authors, the institutions, legislations, actors, politics and structures governing the utilization of resources makeup the political assemblage. The interplay of factors including the Dutch Disease, diversification, oil rents and activities of transnational oil companies as well as the global political economy comprise the economic assemblage. Factors of pollution, degradation and affected livelihoods in an ecological network of institutions and actors globally comprise the environmental assemblage. The role of chiefs, sub-national agencies, power structures, social (in)justice and the duty of transnational oil companies in undertaking corporate social responsibility as a form of social incentive makeup the social assemblage (Andrews & Siakwah, 2020). A point highlighted by Boschini *et al.,* (2007) on the political assemblage of the resource curse argues that institutions are crucial to examine the curse, but do not provide a full picture as to why national resources provide economic development in some instances but not in all instances. This claim is further complimented by Brunnschweiler (2008) who adds that the occurrence and incidence of a resource curse is largely dependent on the country's commitment to developing its human capital and enhancing economic growth through the quality of its governance. Hence Boschini *et al.,* (2007) and Brunnschweiler (2008) assert that the abundance and resource wealth of any country alone does not connote whether or not that country will suffer a curse.

A divergent view held by the Marxist is the fact that economies which are rich in resources tend to be subjugated by local elites whose interest go contrary with that of the state or the "general good" of society. Their interests rather go with transnational oil companies, leading to the exploitation and misuse of the resources at the expense of the citizens, hence the lack in development (Di John, 2011). The author adds that these local elites (including politicians) and transnational oil companies operationalize the natural resource sector as a field which has limited linkages with the national economy, further truncating opportunities for economic development. Ross (2012) adds that the oil and gas industry suffers isolation and is treated as an independent geographical entity which is mostly linked to the global market. The few elites and transnational oil companies have therefore monopolized the use of the country's resources (Siakwah, 2017c, pp. 100-101). There has therefore been the need for a blueprint and policy framework to institutionalize and properly streamline the motives of political parties (role of the state) and transnational oil companies. These are essential to marry activities of these entities with existing policy frameworks to ensure the proper usage, allocation and distribution oil and gas resources.

2.3 A Comparative analysis of Oil Exploration in Ghana & Neighbouring African Countries

With oil resources being a source of development for most countries, aside cash crops such as cocoa, coffee and cashew and mineral resources (gold, diamond and bauxite), most African countries appear to still have the capacity to exploit the most out of their oil reserves. The story of oil exploration in Chad particularly presents the issue of accountability where after the World Bank financed the rapid establishment of the country's oil fields, the country failed to alleviate poverty. Political instability in Chad coupled with violence and the country's landlocked status have all crippled efforts to exploit and obtain the most out of its oil resources since the country gained independence in 1960 (Hicks, 2015). In 2019, reports from the Human Development Index indicated that Chad had a trifling HDI value of 0.398 placing the country in a very low category in terms of human development. This development further pegged the country at a position 187 out of 189 countries and zones when compared (Human Development Report, 2020).

Another case is that of Nigeria where the country has had promising prospects with regards to the exploitation of oil resources. The country has however seen and experienced little development as its oil exploration has been characterized by corruption, oil-related conflicts and environmental degradation thereby searing the conscience of the public to development from the oil resource (Hicks, 2015). In Nigeria for instance, as of 2007 with 80% of the country's proceeds generated from oil and gas, only 1% of the proceeds generated was used for the benefit of the entire population (Ghazvinian, 2007). A point worth mentioning is that given the current resource abundance and the pace of oil exploration undertaken in Nigeria, the country could have turned fortunes around and enhance the quality of life of its citizenry; but it did not. In her influential book, *"The Paradox of Plenty",* Karl (1997) argued that natural resource wealth and rent windfalls have the capacity of altering the politics of a country. Researchers and experts have further identified an inverse linkage between resource abundance and poverty as a "paradox of plenty" (Karl, 2007; Ploeg, 2011) because natural resources are ostensibly beneficial for development (Krueger, 1980; Wright & Czelusta, 2004). As affirmed by neoliberal economist, Anne Krueger, natural resources promote industrialization through the provision of the needed funds to invest in the economy and to expand the country's domestic market (Krueger, 1980 as cited in Andrews & Siakwah, 2020). Key examples include the United States, Australia and Norway who have been successful in exploiting their resources to spur industrialization through the use of technology (Wright & Czelusta, 2004). As affirmed by Deacon (2011), Nigeria is a glaring case of the resource curse. According to the author, the high concentration of income in the country between the years 1970 and the early 2000's only resulted in the population's top 2% 's share of income being equal to that held by the bottom 55%. Again, despite accruing oil revenues in excess of USD 350 billion, Nigeria ironically experienced a 30% dip and reduction in its per-capita GDP in the year 2000 compared to its per-capita GDP in 1965 (Deacon, 2011). The situation in Nigeria could have been improved if the right policy formulations and legislative instruments were implemented and put in place. These actions are necessary to address the issue of corruption and to ensure that there is equity and distributional justice of proceeds from the oil exploration. This would subsequently have a ripple effect on the citizenry and curtail the oil-related conflicts which occur in the country. Today, describing Nigeria as the "Old Oil Giant" of Africa would not have occurred if there was proper management of their oil resources.

With the launching of Niger's oil project by its former President Mamadou Tandja during the signing of an agreement in a bid to develop the eastern Agadem fields in 2007, the nation expected an ancillary form of support for oil development aside its famously known Uranium exploitation (Hicks, 2015). According to the author, the concession which could be exploited in the country's east was small in size and was seen to be insignificant in turning the economic fortunes of a poor country or make the country a major producer of oil. Furthermore, Niger's problem in harnessing the benefits of oil exploration arose as a result of unstable fuel prices coupled with the unwillingness of Nigeriens to pay for the oil at official filling stations. This further rendered the projected local demand for oil in the country to dwindle (Hicks, 2015). Reports indicated that the refineries in Niger had the capacity to produce 20,000 barrels per day (bpd), but due to the availability of smuggled fuel which appears to be cheaper, only about 7,000 barrels per day (bpd) were sold within Niger. These have all negatively affected the expected level of development which the exploration of the oil fields was anticipated to churn out to the country.

Table 2. Summary of Resource Curse factors in Other African Countries.

Country	Oil Exploration Statistic/ Resource Curse Facts	Resource Curse factors
Chad	Oil exploration began in the 1950's with substantial deposits of oil discovered since the 1970's (Stiglitz, 2005) Chad is ranked the 10th largest holder of oil reserves in Africa. (ITA, 2020) Possess a total oil production of 149,231, a total oil export of 133,846 and a total market size of 15,385 respectively as of 2020 (Source: Chad Ministry of Finance and Budget, (https://www.finances.gouv.td/) as cited in ITA (2020).	Extremely poor infrastructure for oil exploration Poor revenue management Political instabilities (Hicks, 2015)
Ghana	Ghana is believed to own petroleum reserves measuring between 5 billion barrels (790,000,000 m3) and 7 billion barrels (1.1×109 m3). This makes it the 6th largest proven reserve in Africa and the 25th largest reserve in the world (Wang *et al.*, 2015) The extraction of oil and gas is currently ongoing in Ghana with the quantities of both crude oil and natural gas continually rising (Basson & Bisgard, 2014). The Government of Ghana indicated that it could expand its oil reserves up to 5 billion barrels (790,000,000 m3).	Lack of transparency and accountability Poor revenue management (Hicks, 2015)
Niger	The history of oil discovery and production in Niger dates as far back as the 1970's. The first tangible occurred in 1975 at the Tintouma field close to Madama Between the years 2008 and 2012, a total of 76 exploration wells were constructed. This generated an	Lack of Contract Transparency High cost of fuel

	increase of the initial estimates from 324 million to 744 million barrels of oil. That is 10,000,000,000 cubic metres to 16,000,000,000 cubic metres reserves of natural gas. Niger is flanked with a total of 150,000,000 barrels of oil reserves ranking as the 60th country globally. The country also produces 13,497 barrels of oil and sits at the 87th position globally. (Niger Energy Statistics – Worldometer, 2022)	Illegal sales of fuel outside refinery gates and the smuggle of fuel out of Niger (Hicks, 2015)
Nigeria	The discovery of oil in Nigeria was done in the year 1956 at Oloibiri within the Niger Delta. The production and export of oil has been a backbone to the Nigerian economy contributing to 90% of its gross earnings. Nigeria joined the league of oil producers after producing 5,100 bpd from its first oil field in the year 1958. Producing 2.5 million bpd, Nigeria is ranked as the largest oil producing country in Africa. The country additionally rounds up as the 6th largest producer of oil worldwide. (NNPC, 2021)	Embezzlement by corrupt public officials Violent conflicts and instabilities Lack of transparency (Hicks, 2015)

The case of Ghana with the discovery of oil is one which projects development and economic prosperity but it is not without issues of corruption and mismanagement. There have been increasing reports of embezzlement with regards to the use of the proceeds from oil exploration according to various social organizations concerned with oil exploration in the country. An observation made by ISODEC (2014) in a study concerning the impact of oil and gas on Ghana has predominantly been the oil revenue derived by the government and the few job opportunities within the sector (employment opportunities are limited as Ghana does not refine crude oil). The country has however been cited to be doing well in addressing issues of production and resource revenue management. This, Ghana has done by pursuing constitutional commitments to transparency by the establishment of laws particularly to govern the allocation of funds from the oil exploration. An example is the Public Interest and Accountability Committee which ensures that the Ghanaian government does what it says and further allows for proper allocation of the resource revenues (Hicks, 2015). However, the poor implementation of formulated policies to govern oil exploration however leaves much to be desired. On the basis of comparison, figures from Bigg (2016) indicated that Nigeria and Angola produce close to 1.867 million barrels per day (bpd) and 1.754 million barrels per day (bpd) respectively. With a production a little below 100,000 barrels per day, Ghana was ranked 9th in Africa, with regards to the production of oil as of 2016. The nation is however tipped to be among the top four oil producing countries in Africa by 2020 (Bigg, 2016). But what could be said of the story today?

As observed in Table 2 above, the African continent is suffocated by the occurrence of a resource curse and the well-worn Dutch Disease due to diverse root causes as given above. This narrative of a resource curse has in effect reduced the prospects of most countries within the African continent to improve the life their citizens. Botswana however tells the story differently; the country has experienced exponential growth economically through its diamond industry (Collier, 2008). This, according to the author has been as a result of well carved and thought-through approaches such as the regulation of the government's budget and spending as well as the great commitment of the nation's elites to domestic development. The case of Ghana presents a number of underlying resource curse factors as outlined within the concept for the study. A large body of literature have associated the occurrence of a resource curse with institutional weakness and corruption in resource-rich countries (eg. Bruckner, 2010; Mehlum *et al.*, 2006; UNDP, 2011; NORAD, 2013). The system of patronage identified by Kelsall (2013) has also been a contributing factor causing institutional failures and weak governance in resource-rich economies particularly in developing countries. Patronage in this case refers to the favours or material support offered to people on the basis of informal affiliations with person(s) in authority (Kelsall 2013; Khan 2010). The study further expounds on existing as well as emerging regulations being carved within the Ghanaian policy framework in governing oil exploration. These regulations governing oil exploration are necessary to ensure that the syndrome of a resource curse is well broken and effectively grinded to improve the lives of the citizens.

2.4 Conceptual Background & Theoretical Framework

This section focuses on the theoretical framework used to provide an overarching structure for the research structure and objectives. The study draws from these in analysing the factors underlying the dynamics of the resource curse relating to commercial production of Ghana's oil particularly by oil industries within the country. How the available macro policies tend to reduce this phenomenon of a resource curse, considering their impact locally would also be analysed. The Environmental Governance System (EGS) framework (Vatn, 2015) is used as a general framework in analysing the data collected with regards to oil exploration by oil industries and evaluating macro policies which govern the issues of environmental governance. This takes into consideration how funds accrued from oil exploration are properly channelled to translate these proceeds into improved living standards in the country.

Rawl (1999)'s Difference Principle of Distributive Justice referred to as *"The Theory of Justice as Fairness",* is also used to evaluate and underscore issues of distributive justice which borders around how revenues generated are managed and shared for economic growth. This theory is also used to examine the effects of distributional injustice of proceeds from exploratory activities and their linkages to reduced living standards and how they can be curbed.

2.4.1 Environmental Governance System Framework (EGS)

Quoting from Vatn's work on "Environmental Governance; *The Aspect of Coordination"*, Governance here refers to the aspect of establishing, maintaining and changing various solutions and institutions as needed to enhance coordination and resolve conflicts within the society (Vatn, 2012). The main components or elements within the Environmental Governance System Framework include institutions which comprise the resource regimes, political institutions and the institutions of civil society, actors (political actors; economic actors; civil society actors), environmental resources and technology (Vatn, 2015). The Environmental Governance System Framework (EGS) is used as a framework to understand the underlying principles which generally shape the processes of policy formulation and their outcomes. This is done by analysing the constitutional and collective choice rules as well as examining the role of institutions in governing and the determination of resource regimes. Additionally, the framework is employed to understand how the actions of economic actors (Oil producing industries) and political actors (Government officials) impact the interest of civil society organizations and civilians in different ways. Vatn (2012)'s definition of governance has been adopted within this study to highlight how decisions of the government officials influence the production and use of proceeds from the oil resources and the ripple effect it has on the citizens of the country. Figure (1) below represents the EGS Framework adopted from Vatn (2015), which shows the interrelationship among the different actors within the society, the Institutions, available Technologies and their role in determining the economic use of the environment.

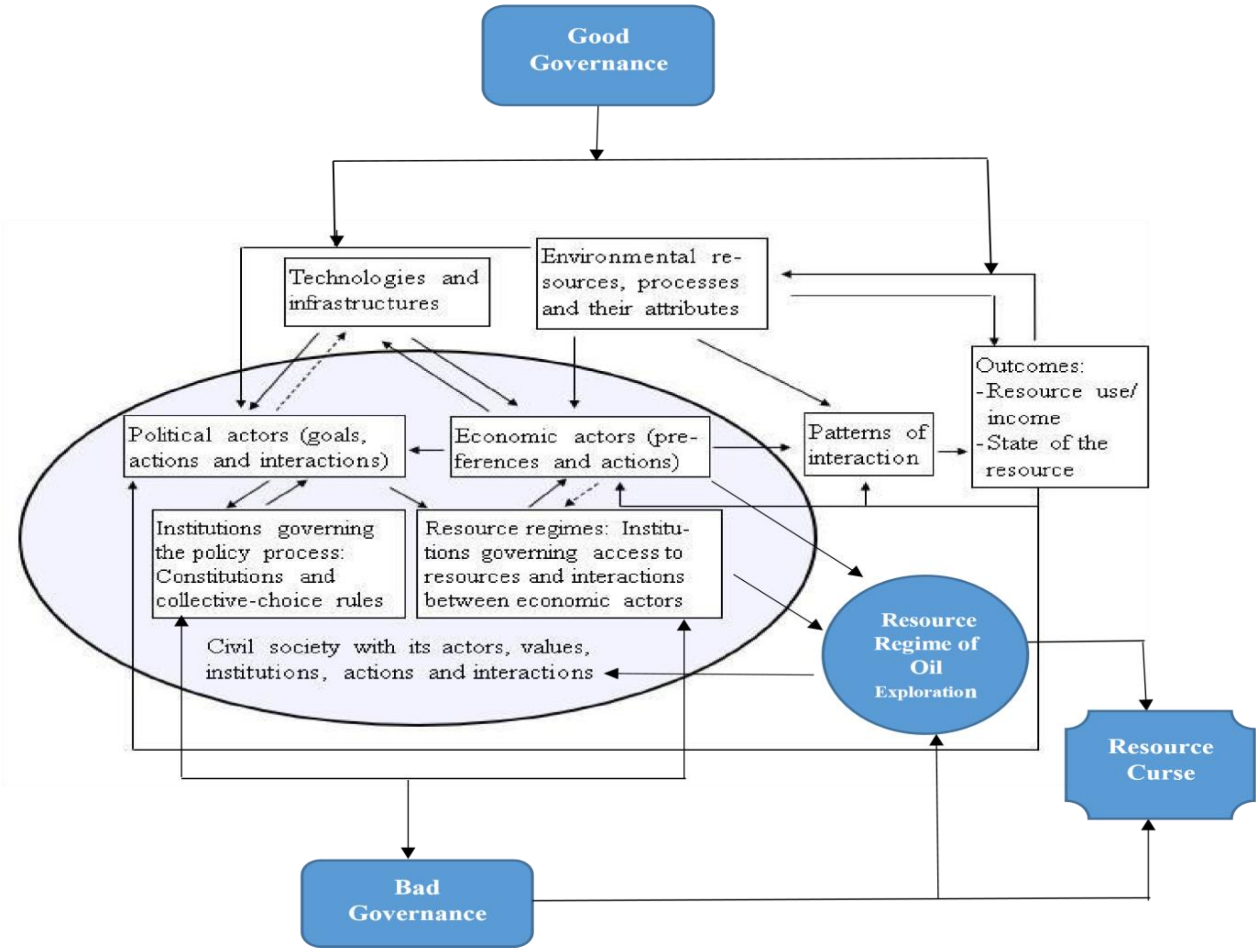

Figure 1. Environmental Governance System Framework.

Based on Vatn (2015).

2.4.2 The Theory of Distributive Justice

The Theory of Distributive Justice is utilized to examine findings on legitimacy, distribution and justice. The focus and use of Rawl's Principles of Social Justice in this study draw on the premise of Rawl's second principle; *the Equity Principle* an advocate for "fair equality of opportunity". This theory is used to analyse the issues of legitimacy, distribution and justice of oil proceeds which result in the continual decline in the quality of life of the citizens despite the discovery and commercial production of oil within the country. Thus, this theory is used to analyse the second and third objectives which focus on how the proceeds are used and the ripple effect of this activity on the economy and the citizenry as a whole.

2.4.3 The Concept of Legitimacy

Vedeld (2017) in his work, *"Something that the NGOs do?"* provides insight into the concept of "Participation" expounding on the role of power in resource governance. According to the author, "Participation" mostly concerns the concept of power, how it is controlled as well as its influences on the distribution of resources. It also envelopes the questions of who decides what, when, where and why events occur within the society (within both public domains and private entities including civil groups). Simply put, participation encompasses the rights and responsibilities of citizens in relation to their contribution to making decisions in governance and fundamentally as the share of values and norms in social institutions (Vedeld, 2017). With Martinussen (1998) advocating for a Participatory Democracy rather than a Competitive Democracy, Vedeld (2017) further affirms that democratic participation is an essential prerequisite to ensuring that the authorities' utilization of power and their efforts to resolve conflicts are considered by the people as obeying the precepts of legitimacy (Vedeld, 2017). This, the author expounds as having great relevance for how effective and efficient a given policy may be, in a way where it contributes vastly to the desired outcome. Legitimacy is used as a concept within the study to underscore how power relations determine which stakeholders are considered relevant to contribute to policy formulation and the outcome of these policies on the allocation of resources nationwide. The concept of legitimacy is moreover split in two categories: Input and Output Legitimacy. Whereas Input legitimacy deals with the legitimacy of the decision-making process typically in policy formulations, the Output legitimacy lays emphasis on the legitimacy of 'results' or how effective the decisions made or taken play out as underscored by Vatn (2015).

The Environmental Governance System framework was used to analyse procedures followed by political and civil society institutions in carving out policies which govern the exploration of oil in Ghana. The concept of input legitimacy was also used to underscore institutions which govern the resource regime of oil exploration and how these processes affect policy outcomes. The theory of input legitimacy further expounds the role of civil society organizations in demanding transparency in the distribution of oil resources. The concept of output legitimacy was utilized to analyse the effectiveness of oil policies and its results in averting a resource curse. With the theory of Justice and Fairness, Rawl's *"Equity Principle"* lays emphasis on the means of distribution of oil proceeds from the national to the local level in the country. This was done by further examining the areas of the economy the oil fund has supported to improve the quality of life of citizens. The Environmental Governance System framework was utilized to expound the governance discourses (Green governmentality/ Civic environmentalism) involved in the governance of Ghana's oil. This was done by underscoring the influence of governance on the available technologies and infrastructures and how these shape the preferences and actions of economic actors (transnational oil companies) which determine the outcome of oil exploration.

CHAPTER THREE

3.0 Methods

3.1 The Case Study

With a population of 32,261,530 people (2022), and total land area of 227,540 Km^2 (87,854 sq. miles) (Worldometer Live, 2022), Ghana is served with an abundance of natural resources. Some of these resources include renewable resources such as timber, cocoa and fisheries. Others are non-renewable resources such as gold, diamonds, bauxite and oil and gas among others. Although acknowledged as one of the countries in Africa with the most stable democracies, the prospects of the benefits coming from this emerging industry leave much to be desired in terms of economic development. The major operational fields where these oil resources are extracted include the Jubilee field which is situated in the Gulf of Guinea, approximately 60 km off the coast of Ghana close to the Côte d'Ivoire border (as seen in Figure 2 below). The field extends over an area of 110 km^2 and situated within a water depth of 1,100m (Offshore-Technology, 2011). The Tweneboa field located 6 km east of the Jubilee field was also discovered in March 2009. Apart from these major oil fields, there have been also some smaller fields close by. There has been a discovery of more than 15 wells in the western Ghanaian sea territory. Most of these wells were discovered by foreign companies that are engaged in the exploration of oil (Kastning, 2011).

In 2011 (between January and April) when the country's major commercial oil extraction was done, a total of 4.7 million barrels of crude oil were produced (https://www.pwc.com/gh/en/industries/energy-utilities-resources.html). As of 2016, Ghana's rate of oil production occurred at an average of 99,113.66 barrels per day (Worldometer, 2016). As a case study in the oil industries in Africa, Ghana is chosen to analyse and underscore approaches to overcoming the resource curse which has stifled development and immobilized economic progress in most developing countries.

3.1.1 The Case of Ghana's Oil Exploration Before & After the Enactment of the Country's Relevant Policies

The commencement of oil exploration in Ghana was characterized by drilling of wells to tap these oil resources in 1896. The drilling of wells within these early periods of oil exploration in the country were not done based on a comprehensive knowledge of the geological structures and was also done without the help of seismic data (Petroleum Commission of Ghana, 2020). In the mid 1980's, there was the introduction of the earliest legislative framework to regulate activities of upstream oil and gas exploration by the Ghanaian Government. Three major enactments were passed in the legislative framework. These included the Ghana National Petroleum Corporation Act, 1983 (PNDCL 64), which formed the Ghana National Petroleum Corporation (GNPC) as the oil corporation of the nation to oversee the country's activities within the upstream sectors of oil and gas. Furthermore, the Petroleum (Exploration and Production) Law, 1984 (PNDCL 84) was formulated for the regulation of exploratory and production activities and also to provide the framework with which the government could engage with international oil firms in order to undertake exploratory and production activities. The third enactment was the passage of the Petroleum Income Tax Law 1987 (PNDCL 188) for the purpose of regulating the operations and taxation within the upstream oil and gas sector.

Following the formulation of the Ghana National Petroleum Corporation (GNPC) in 1983, there was an accompanied enactment of the Petroleum Exploration and Production Law in 1984 as well as the endorsement of the Petroleum Income Tax Law in 1987. These events saw the execution of various Petroleum Agreements with international oil companies such as Diamond Shamrock, Atlantic Richfield Corporation (ARCO) and Amoco. With the need to develop the essential expertise for the exploratory activities, Ghana received a substantial amount of money to support GNPC in obtaining 2D seismic data to assist in the oil exploration. This assistance was given by the Canadian Government and offered through the Petro Canada International Assistance Corporation (P.C.I.A.C). Additionally, through a bilateral cooperation, the Government of Japan aided the country to acquire other 2D seismic data to further assist in exploration of oil. GNPC then acquired by itself a 3D seismic data and also undertook the development of various infrastructure to help foster the progressive expansion of the oil fields (Petroleum Commission of Ghana, 2020).

In 1992, with the coming into force of the country's constitution, the ownership and use of the discovered oil resources were properly delineated. Quoting from Article 257(6) of the 1992 Constitution of the Republic of Ghana, *"Every mineral in its natural state in, under or upon any land in Ghana, rivers, streams, water courses throughout Ghana, the exclusive economic zone and any area covered by the territorial sea or continental shelf is the property of the Republic of Ghana and shall be vested in the President on behalf of, and in trust for the people of Ghana"* (Owusu-Adjapong, 2018). As a provision in the Ghanaian constitution, there is the need for an approval by the parliament for all transactions which involve a grant of the right to exploit and produce natural resources in the country. The constitution further authorized the formulation of particular bodies and agencies in the form of Commissions to oversee the utilization of natural resources as well as the coordination of important policies. These were all formulated as a check on the President's powers in controlling and managing resources on behalf of the Ghanaian people (Adadzi *et al.,* 2020).

In 2007, following the discovery of oil in commercial amounts, there was the passage of the Petroleum Commission Act, 2011 (Act 821) to help coordinate exploration for oil and gas upstream in accordance with the constitution. The Petroleum Revenue Management Act, 2011 (Act 815) was further formulated and modified Petroleum Revenue Management (Amendment) Act, 2015 (Act 893) as a framework for managing petroleum proceeds. In 2016, the Petroleum (Exploration and Production) Act, 2016 (Act 919) (the E & P Act), was enacted to substitute the initial PNDCL 84, as the main legal instrument to regulate petroleum exploration activities within the upstream region (Adadzi *et al.,* 2020).

With time, these rights for exploration, development and production of different offshore blocks for oil resources were sold by the Government of Ghana, a consignment undertaken in 2004. Currently, partners in the Jubilee field include Tullow Oil Ghana (owning 35.48%), Kosmos Energy (owning 24.08%), Anadarko (owning 24.08%), GNPC (owning 13.64%), and Petro SA (owning 2.73%). The TEN fields are operated by Tullow Oil Ghana (having 47.18%) with their partners Kosmos Energy (having 17%), Anadarko (owning 17%), GNPC (owning 15%), and Petro SA (owning 3.82%). Additionally, the Sankofa field which is also referred to as the Offshore Cape Three Points Integrated oil and gas development project is operated by Eni (who own 44.44%) with other partners Vitol (who own 35.56%) and GNPC (owning 20%) (Skaten, 2018). An overview of oil field ownership is indicated as shown in Table 3 below.

Table 3: Percentage ownership of oil fields by various oil companies operating in Ghana

Oil Field	Oil Company	Percentage Ownership
Jubilee Field	Tullow Oil Ghana	35.48%
	Kosmos Energy	24.08%
	Anadarko	24.08%
	GNPC	13.64%
	Petrol SA	2.73%
TEN Field	Tullow Oil Ghana	47.18%
	Kosmos Energy	17%
	Anadarko	17%
	GNPC	15%
	Petro SA	3.82
Sankofa Field	Eni	44.44%
	Vitol	35.56%
	GNPC	20%

(Skaten, 2018)

In recent times however, there have been the emergence of various enquiries in their wake as to why the nation has failed to develop and prosper economically despite the formulation of various astute legal instruments to manage the exploration and production of oil and gas in Ghana. This has left various economists and researchers alike with more questions than answers concerning Ghana's discovery and use of oil and gas resources, and what has obstructed the nation's pathway out of poverty using oil revenues. A documentation of major oil exploration fields is shown below.

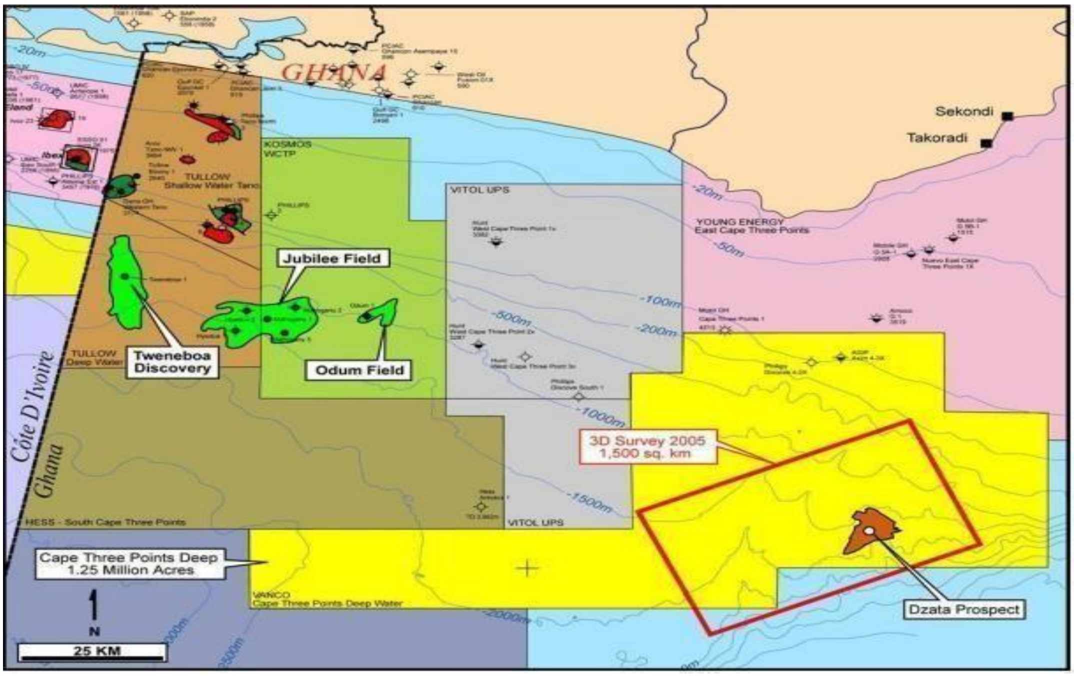

Figure 2: Ghana's Oil Findings.

Adapted from Kastning, (2011) for FES Ghana.

Figure 3: Ghana's Oil Blocks

Adapted from Kastning, (2011) for FES Ghana.

3.2 Data Needs

The research work adopted a qualitative research design in collecting and analysing the data needed to help answer the research questions. As supported by Bryman (2016), the use of a qualitative method involves the collection of qualitative data which helps to give an enhanced insight and a better understanding of the research questions under study and investigation.

3.3 Data Collection Design

Data for the study was collected from both primary and secondary data sources. Electronic surveys links were sent to key informants via their official working emails. These surveys and email correspondents helped to obtain essential needed information from the respondents. A gatekeeper primarily assisted as the first point of contact in communicating with the identified key informants within the industries and the governmental organizations. As indicated by Bonnin (2010. P. 183), gatekeepers are essential to the research process and can hinder or facilitate the researcher's access to resources such as people institution, information and logistics within the research process. Thus, having a good gatekeeper was essential to foster and enhance the research process, especially in reaching out to and in collecting primary data sources from the identified key respondents.

3.3.1 Data Collection Instrument & Sampling Technique

Purposive sampling was employed to choose the relevant governmental agencies and civil society lobbies (NGOs involved in environmental protection) and Governmental Ministries and agencies mandated to oversee Ghana's oil exploration (GNPC). Purposive sampling according to Palinkas *et al.,* (2015) is relevant to collect in-depth information for a specified data from a set of respondents for the subject under study. Primary data was collected using a semi-structured interview schedule with some open-ended questions to allow for questions which might prop up. This gave room to the respondents to express themselves well on some issues.

According to Vatn (2012) in his Environmental Governance System Framework, actors form key elements within the Governance system and include political actors, economic actors and civil society actors. A Senior partner with Scanteam, an expert consultant who has experience working with NORAD, a Norwegian donor organization which operates in Ghana also responded to questions for the study. These bodies stood as civil society actors demanding an equitable resource regime. Tema Oil Refinery, an oil processing company operating in Ghana also represented an economic actor within the society which seeks to maximize profits from the oil production activities through value addition. Respondents chosen mostly have key designations, with the others being the heads within these establishments. These data collected were further triangulated using published policy documents, laws and operational reports from both national and institutional (Ghana National Petroleum Corporation and Petroleum Commission of Ghana) websites. Findings from Ghana's oil policy documents and annual reports were reported as secondary data from Ghanaian institutions which are involved in the governance of Ghana's oil exploration. These findings were further triangulated with other research publications to ascertain what is actually happening on the "ground".

3.3.2 Types of Data Collected

Data were collected from published data of both Governmental agencies and civil society lobbies such as Institutions established to ensure proper utilization of oil revenues. Secondary data were also collected by further conducting an extensive review of documents and literature as well as reportage of secondary sources of data on the oil industries in Ghana. Documents from governmental agencies such as the Ghana National Petroleum Corporation, Petroleum Commission of Ghana and the oil industries were analysed to ascertain the macro-policies governing these industries as well as how effective they are and the impact exerted locally by these industries. Journals and publications were useful and relevant in order to triangulate the information gathered to enhance its credibility.

3.4 Ethical aspects and epistemological positioning

Quoting from Bryman (2016. p. 62) in his book, *"Social Research Methods",* the success of obtaining the ideal validity and reliable for any given case study within the research design is largely dependent on how the researcher examines that the criteria are appropriate in representing the case study. This research study therefore took the factors of validity and reliability into consideration where findings would be consistent across time and across researchers.

Furthermore, with the study being a case study, an overt approach was used where the consent of the industries and governmental institutions were sought to undertake the research. The research could not have been carried out without the knowledge of the participating respondents. Respect, solidarity information feedback, insight and conclusion were used as a way of giving something back within the research process not only as part of quality assurance but also an ethical concern. As affirmed by Scheyvens (2014 P. 175), the research experience can be rewarding for your informants when you act in a way that conveys genuine respect for them and their culture. Additionally, ethical considerations in analysis incorporated a balanced enquiry with an appropriate design method to avoid bias and to enhance the quality of the research. Finally, there was an honest and transparent reporting of the gathered and analysed data and findings.

Proper entry was ensured for establishing good rapport between the researcher and the respondents or organization. As supported by Scheyvens (2014), official ethics procedures in research require an approval from the University to ensure that the fieldwork to be undertaken would be appropriate. Hence, as part of ethical considerations on proper entry I employed virtual approaches to collect data from a distance by making use of a gatekeeper who acted as a mediator between myself and respondents within the industries. This had been necessitated as restricted movement as a result of the COVID-19 made travelling a herculean task.

3.5 Potential Limitations and Challenges

Conducting the study has not been without encountering challenges during the research process. The shortfalls were however addressed by employing contingent measures to ensure that results obtained were devoid of biases and personal inferences. Conducting the research remotely was necessitated due to the initial periods of intermittent open-ups and closedowns during the COVID-19 pandemic. The success of institutional visits was also issue to grapple with due to new norm of working from home. Conditions were rendered sketchy and more lurid thereby not making room for plans to travel for face to face data collection. The study therefore utilized modern data collection software and techniques which were enough to address the challenge. This approach allowed respondents to freely express themselves through a good number of open-ended questions as it would have been in the case of a face to face interview. Additionally, given the remote nature of the data collection technique, some of the respondents did not feel obliged to respond to the survey. Thus, two out of the six key respondents filled out the survey. The study therefore made use of published information from the designated institutions to which these respondents are affiliated with. This approach helped to obtain essential and well documented online data and statistic which hitherto were expected from these respondents.

CHAPTER FOUR

4.0 Results & Discussion

4.1 Introduction

This chapter includes a presentation of results and discussions based on findings from relevant policy documents, annual reports as well as from personal interviews. The chapter presents and discusses a governance model for Ghana's oil, looking into the institutions mandated to oversee the country's oil exploration. This is followed by highlighting elements of a resource curse by examining factors which lead to the occurrence of a resource curse in the country, and further expounds on institutional setups to aid in breaking the resource curse. The chapter also presents key governance discourses in Ghana's oil production and exploration and rounds up with emerging policies being formulated to address issues of governance of Ghana's oil.

Figure 4: Oil exploration with the Floating Production Storage and Offloading (FPSO)

Credit: Getty images- iStockphoto

4.2 The governance model in Ghana concerning oil policies

4.2.1 Institutions mandated to oversee oil exploration in Ghana

Established by the GNPC Law 1983 (PNDC Law 64), the Ghana National Petroleum Corporation (GNPC) began operations in the country in February 1985. The Corporation's activities and scope of work are outlined in the Exploration and Production Law 1984 (PNDC Law 84). These legal provisions offer GNPC rights to undertake exploration, development and production of petroleum in all open blocks in the country. Law 84 further requires that all persons (or entities) who are seeking to undertake such activities in Ghana must do so in partnership with the Corporation and the Government of Ghana. The Petroleum Commission was established by Act 821, 2011 as a regulatory agency for the purpose of regulating and managing the utilization of petroleum resources and the coordination of formulated policies (GNPC, 2015). This echoes findings from Quartey & Abbey (2020) which affirms the role of the Petroleum Commission in regulating Ghana's oil resources. Aside from the Petroleum Commission, the Ministry of Energy has been mentioned as a key agency in overseeing the exploration of Ghana's oil resources (T. Norheim, personal communication, March 21, 2022).

The Commission has been mandated by law to promote sustainable and cost effective petroleum activities needed to achieve ideal levels of resource exploitation, monitoring and ensuring adherence with national laws, regulations, policies and agreements related to petroleum exploration activities. The Commission further has the mandate of promoting local content and local participation in Ghana's petroleum activities (Ministry of Energy, 2017. p. 43). The Ghana National Gas Company (GNGC) was also established by the Government of Ghana in 2011 with the responsibility of building, owning and operating infrastructure to gather, process, transport and market natural gas resources within the country (GNPC, 2015). The mandate to oversee the award of concession for the exploration of Ghana's oil are embedded solely in the hands of governmental agencies (T. Norheim, personal communication, March 21, 2022; E.K. Asare-Duah, personal communication, April 21, 2022). There are no tensions occurring between the government and private sector in the award of concessions in the country (T. Norheim, personal communication, March 21, 2022; E.K. Asare-Duah, personal communication, April 21, 2022).

The following laws as embedded within the Constitution of Ghana regulate the upstream oil sub-sector:

- Ghana National Petroleum Corporation Law (1983) empowering the GNPC as to develop the nation's oil and gas resources (PNDCL 64).
- Income Tax Act (2015), Act 896 which was previously known as the Internal Revenue Act, (2000), Act 592 looks into the tax elements of oil exploration and production
- The Petroleum Revenue Management Act, 2011 (Act 815) which looks into how revenues from all petroleum operations are collected, allocated and managed.
- Petroleum (Local Content and Local Participation) Regulations, 2013 (LI2204) also helps to improve social conditions by building capacity, guaranteeing job and employment as well as adding value and promoting the competiveness of local industries on the international front.
- The Petroleum Agreements which defines the rules of engagement in petroleum production.
- Petroleum [Exploration and Production] Act (2016) which was hitherto known as the Petroleum Exploration and Production Law, 1984 (PNDC Law 84) governs the exploration of Ghana's petroleum resources.
- The Petroleum Commission Acts, 2011 (Act 821) establishes the Petroleum Commission to coordinate policies and manage the nation's petroleum products (Quartey & Abbey, 2020)

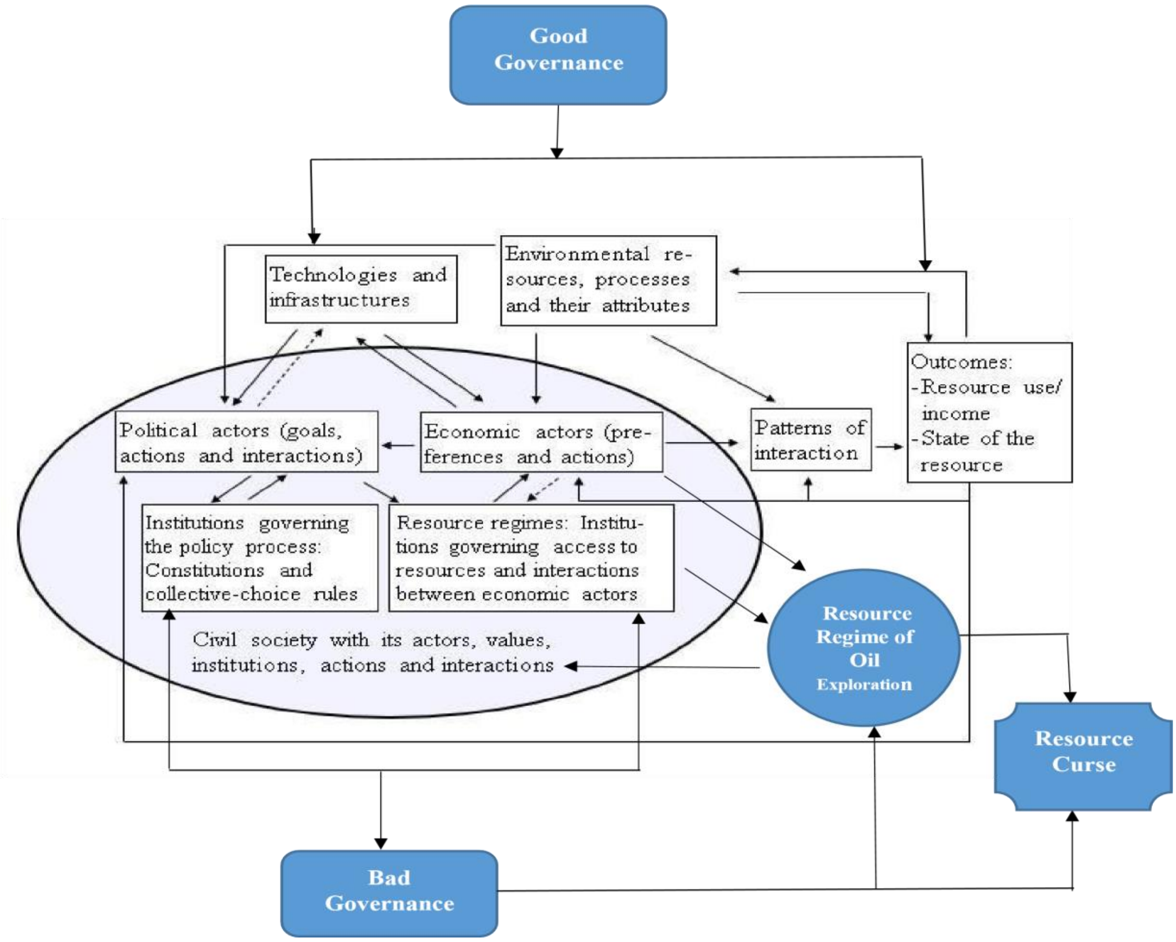

Figure 5: Environmental Governance System Model

Source: Vatn (2015)

Based on Vatn's (2015) Environmental Governance System framework, the major elements include institutions and their resource regimes, actors (political actors, economic actors and civil society actors), environmental resources and technology. These elements do not exist in isolation, hence the model gives an interrelation among the various elements and how they are translated into a "blessing" or "curse" for the nation dependent on good and bad governance respectively. Expounding on the makeup of these elements in Ghana's oil exploration industry, transnational oil companies and local contractors constitute economic actors. Civil society actors include NGOs and donor agencies such as the Norwegian Agency for Development Cooperation (NORAD) and the Public Interest and Accountability Committee (PIAC), which ensure accountability in the distribution of oil proceeds. Political actors include key personnel and top government officials from the Ministry of Energy, the Ministry of Finance as well as the Ministry of Environment, Science, Technology and Innovation (MESTI). Ghana National Petroleum Corporation (GNPC) and the Petroleum Commission (PC) constitute political institutions which determine the resource regime sometimes under the influence of economic actors (transnational oil companies) who appear to have a high level of affluence and substantial influence on policy outcomes which determine the resource regime.

In attempts by the Government of Ghana in 2014 to consolidate the nation's upstream and midstream sectors of the market through the commercial and regulatory framework, the Ghana National Petroleum Corporation (GNPC) was chosen as the nation's Gas Aggregator. The Corporation took over operations from the Ghana National Gas Company (GNGC) in 2015 and this necessitated the expansion of activities both in the upstream gas division with the Corporation's scope of operation moving further down the value chain into the mid-stream gas sections (GNPC, 2015. p. 9).

As spelt out in its 2015 Annual Report, GNPC has the mandate of exploring, developing, producing and disposal of petroleum resources for the greater good of all Ghanaians. It is also in charge of organisational changes, defining new structures within the organisation as well as new systems of managing performance determining whether or not practices conform to International standards in the upstream oil sector (GNPC, 2015. p. 3). This is reflected in GNPC's Accelerated Growth Strategy, where the Corporation aspires to be a world class operator within the oil and gas sector by 2027, ensuring the effective regulation of Ghana's oil and gas resources (GNPC Annual Report, 2015. p. 10). This affirms findings from Andrews and Siakwah (2020) and Quartey & Abbey (2020), where the authors indicate that GNPC is a key governmental institution involved in and mandated to oversee Ghana's oil exploration particularly the upstream oil and gas sector. Key roles performed by regulatory agencies in the award of concessions include;

- Review of candidates' background
- Give exploration permits
- Review exploration reports

(T. Norheim, personal communication, March 21, 2022).

With regards to leadership, the Chief Executive as the head of the Corporation's management team, is subject to the directions of the Board, and responsible for running the day-to-day administration of the Corporation, implementing policies and decisions of the Board (GNPC, 2018). Appointed by the Government of Ghana, the Board of Directors of the Corporation have the responsibility of overseeing the performance of management and governance of the Corporation in the delivery of approved corporate objectives and set targets (GNPC, 2018. p. 6).

Under PNDC Law 64, the Board is required to generally exercise control over the management, funds, business and properties as well as other matters and affairs of the Corporation. The 8th (appointed) seven-member Board of Directors of GNPC, consists of industry professionals and prominent personalities who have vast experience and credibility that provide the necessary policy direction and leadership. This diverse composition in GNPC's Board of Directors has been essential to assist the Corporation in the achievement of its accelerated growth strategy (GNPC Annual Report, 2018. p. 6). The Board is responsible for providing leadership, outlining strategic objectives, formulating key policies, and ensuring that appropriate resources are put in place to ensure that the Corporation meet its objectives (GNPC, 2018). Whilst the Board takes responsibility for policy and strategy issues, the Management team's responsibility is to ensure that these policies and strategies as planned and formulated by the Board are effectively and efficiently implemented (GNPC, 2018).

In terms of co-operation among regulatory agencies, GNPC cooperates with relevant State agencies and stakeholders in the industry for the purposes of developing solutions to address the challenges which face Ghana's gas-to-power sector. For instance, the Corporation engaged with Quantum Power in 2015 for the purpose of establishing a liquefied natural gas (LNG) import facility in Tema to complement domestic production of gas in the country (GNPC, 2015. p. 11). Effective co-operation among governmental agencies in performing their roles does not occur without challenges being encountered by one agency limiting the role of another.

As a challenge which hampered the effective functioning of GNPC, the Corporation in 2015 was owed a substantial amount of monies by various government institutions including the Tema Oil Refinery (TOR), Ghana National Gas Company (GNGC), the Bulk Oil Storage and Transportation Company (BOST) and the Ministry of Finance. According to GNPC, the availability of the monies borrowed out would have been a good step at enhancing the organization's efficiency and performance (GNPC, 2015. p. 11). The Corporation was thus compelled to take up a loan facility from the Ghana Commercial Bank to finance the construction of Gas Pipelines, Substation, Power Transmission Lines and Marine Civil engineering works needed for the relocation of the Karpower Floating Plant from Tema to Sekondi Naval Base. This loan was given for USD25 million at an interest rate of 9.125% p.a (GNPC, 2018. p. 93). Mohan *et al.,* (2018) thus expounds on the need to support the GNPC with the capital it needs to thrive as a regulatory institution, citing that the Corporation has the expertise but lacks the capital.

The Ghana National Petroleum Corporation further has a dialogue with the government of Ghana in relation to policies and legislations that affect its operations. The Board Chairman of the Corporation is responsible for encouraging public debate and constructive criticism, and speaks and acts on behalf of the Board. He also mediates between the Board and its shareholders. Whilst the Board takes responsibility of policy and strategy issues, the management team is responsible for ensuring effective and efficient implementation of policies and strategies designed by the board (GNPC, 2015). The effective implementation of policies is also complimented by other key governmental institutions including the Ministry of Energy and Finance and the Petroleum Commission (T. Norheim, personal communication, March 21, 2022).

Seen as the main industrial regulator, GNPC continues to participate with its numerous stakeholders as part of efforts to remain transparent and accessible in the discharge of their duties. Frequent meetings are held, and reports submitted to various Ministries, the Extractive Industries Transparency Initiative (EITI), Parliamentary Select Committees, front line communities, Civil Society Organisations (CSOs), the Government's development partners and the media among others (GNPC, 2015). Quartey & Abbey (2020) further compliment the register of stakeholders aside the Ghana National Petroleum Corporation. These include the

Petroleum Commission, the Ministry of Finance, Ghana Gas, the Parliament of Ghana, the Bank of Ghana, the Environmental Protection Agency, the Public Interest Accountability Committee, Ministry of Energy and Petroleum, the Auditor General and the State Enterprise Commission. These institutions, according to the authors, also play essential roles for efficiency and for sanity to prevail in the country's upstream oil and gas sector.

The authors further argue that there is weak collaboration among institutions evidenced in poor gathering of geological data, ineffective approaches to revenue mobilization and the inability of the relevant agencies to properly integrate the oil and gas subdivision with the rest of the economy.

The mandate of the Ghana National Petroleum Corporation is identified as being of great benefit to the breaking of the resource curse syndrome and majorly include:

- Ensuring Ghanaians obtain the greatest possible welfares from the development of the nation's petroleum resources.
- Offering training to Ghanaians and developing the national capabilities in various aspects of petroleum exploration activities.
- Ensuring that petroleum operations are conducted in a way to avoid adverse effects on the environment, resources and the Ghanaian populace (GNPC, 2018).

Quoting from Vatn's (2015) Environmental Governance System Framework (EGS), Resource regimes determine different resource regimes with their different actors and values, norms, institutions and the actions and interactions of these regimes. This in effect determines whether the available resources would be a "blessing" or a "curse" based on the actions of the functioning institutions particularly in implementation and enforcement. The role of civil society actors such as the Public Interest and Accountability Committee (PIAC) is also accentuated in ensuring good governance for the greater good of the society.

Although the long-term development projections of the industry remained positive, GNPC as a primary regulatory agency faces perennial issues which have continued to pose hindrances, including the lack of local capacity building to boost local participation in the upstream oil and gas sector (GNPC Annual Report, 2018. p. 13). The Ghana National Petroleum Corporation as a regulator has its fair share of administrative and operational challenges. These include: a sub-optimal gas value chain which has not been concluded, aside crucial government interventions to resolve issues surrounding debt in the energy sector (GNPC, 2018).

To enhance the efficiency of GNPC as a regulatory agency, the Corporation needs to properly coordinate with other parties in undertaking its roles, as indicated in its annual report in 2018. Considering the Corporation's strategic quest for operatorship, it is imperative that GNPC collaborates with entities which have the right strategic fit, technical competence, financial strength and commercial capability. It is therefore critical to utilize policy backing calls to build effective strategic partnerships for GNPC (GNPC Annual Report, 2018. p. 3). Even though upstream activities have been the core business of GNPC, the Corporation is picking up lessons from successful transnational oil Companies around the world, to act as an 'enabler' of industry development. The philosophy is that as an industry enabler, GNPC will engage in other segments of the industry where necessary, to ensure the development of the industry in an integrated manner (GNPC, 2018).

4.1.2 Integrating research findings into the Environmental Governance System (EGS) framework based on Vatn (2015)

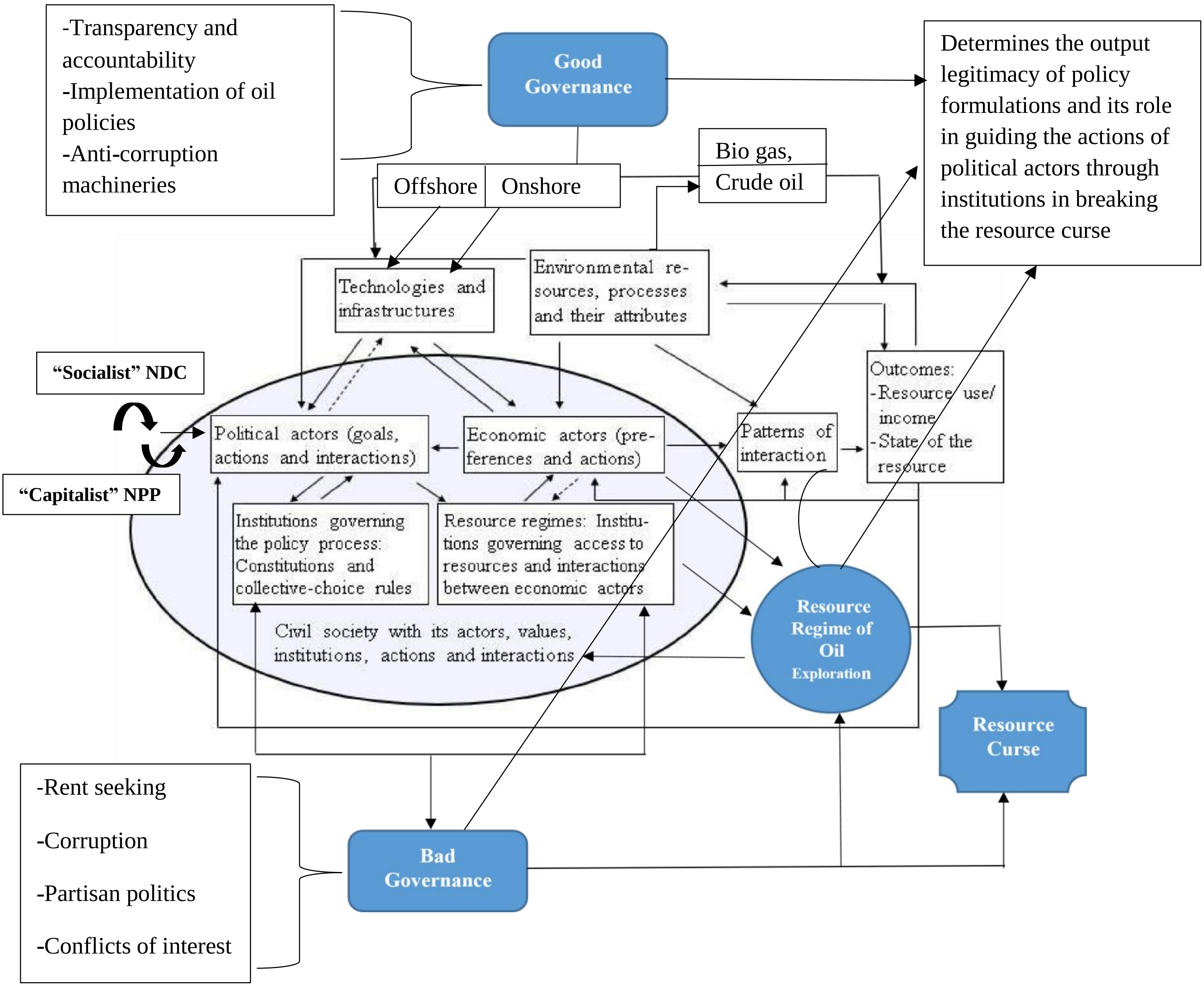

Figure 6: The Environmental Governance System framework, Resource Curse and Research Objectives.

Source: Vatn (2015)

Incorporating the research objectives into Vatn's (2015) EGS model, political actors determine the actions of governing institutions. For example, the political discourse of the NPP and NDC determine how regulatory agencies (GNPC) govern activities of economic actors (oil companies). This in effect determines the factors of a resource curse, and whether the nation is able to avoid these factors or not. Typically, the socialist view (of NDC) and the capitalist view (of NPP) of political actors determine the resource regime, defining how regulatory institutions (GNPC) govern access to the country's oil resources as well as interactions between economic actors (oil exploration companies). Additionally, the political actors determine the emerging policies for implementation by regulatory institutions which govern oil exploration in the country. This, according to Vatn's (2015) EGS framework, determines the resource regime and finally determines whether the nation's prevailing oil resources become a "blessing" or a "curse". The role of civil society actors (PIAC and NORAD) is also accentuated in ensuring good governance needed to break the resource curse syndrome. NORAD for instance has been in operation in Ghana since 2007 with its *Oil for Development Program,* in a bid to help Ghana break the resource curse by improving returns from oil exploration.

According to Vatn's (2015) EGS framework, the outcomes of environmental resources, processes and attributes are determined by how the resources are used including the returns these resources generate. The state of the resource also determines the outcome of resource use according to the framework. These outcomes as stated above, are the ripple effect of initial input made through technological infrastructures as well as policy processes. These are determined through the interactions between political actors (socialist or capitalist) and economic actors (profit-motivated), and ultimately determine whether the available resource becomes a "blessing" or a "curse" through the prevailing resource regime.

4.3 Elements/ Indicators of the resource curse as experienced in Ghana

Within the past few years, Ghana as a nation has suffered from a number of complicated challenges encountered in the upstream petroleum sector. The GNPC as a regulatory agency currently faces a number of challenges in its operations and the execution of its strategy and the outcomes.

Figure 7: Deepwater FPSO oil facility. *Credit: Stock photography*

4.3.1 Factors impeding the realization of the full benefits from Ghana's Oil

Identified from Hicks' (2015) book (Africa's New Oil), factors which fueled Ghana's reduced efficacy to breaking the resource curse have predominantly been the lack of transparency in the distribution of proceeds due to issues of corruption and bad governance. The lack of transparency in concession, drilling and construction rights, as well as the reduction in revenues to the state and GDP has also been a factor further reducing the nation's prospects for increasing rate of employment and pursuing infrastructural development. These factors of a resource curse are discussed in detail as below.

4.3.2 Lack of transparency in the award of concession and drilling rights

The lack of transparency in the award of concessions to contractors and oil companies for oil exploration has been major issue to grapple with in breaking the resource curse. A point worth mentioning is that, crude actions executed by governmental and other top public officials have been key hindrances to the effective implementation of national policies for the award of contracts (E.K. Asare-Duah, personal communication, April 21, 2022). Other key issues in Ghana's exploration in operations in oil concessions have been the extortion and smuggling of petroleum products and the lack of logistics for monitoring to ensure proper compliance during exploratory activities (E.K. Asare-Duah, personal communication, April 21, 2022). The resource curse is exhibited through an interaction and network of power structures both locally and internationally (Andrews and Siakwah, 2020). According to the authors, the range of actors (political, economic and civil society) determine the complexity of the countries' resource regime particularly through competing interests and contingent power relations among these, ultimately determining who gets what.

As affirmed by Karl (1997), the abundance of natural resources and associated rents in any country affects the political atmosphere. According to the authors, when a given country has a weak institutional setup, extraction of resources can greatly affect the foundations of decision-making and the circle of authority within the country. This is further complimented by Mehlum *et al.,* (2006) who cites that the curse is conditioned by the efficiency of institutions mandated to oversee the exploration of oil resources. In the view of Ross (2013), weak institutions have the tendency of being corrupt and encourages rent seeking. This according to the author, results in aggregation of oil revenues in the hands of the few elites in the society mostly politicians and contractors within transnational oil companies in the award of oil contracts.

Andrews & Okpanachi (2020), assert that within political regimes, elite-capture has been a motivation for most political actors to stay in power particularly in Africa. This, the authors assert has been incentivized through rent-seeking which further increase the political completion in the country. Practical examples of such crude practices in the award of concession rights have been the award of block licenses to key people in the NDC (Mohan *et al.,* 2018). The second example is the award of 3.5% share of the Jubilee Field to the O.E. Group, a Ghanaian company in the diaspora based on its affiliation to the government in power (NPP) in 2004 (Andrews & Siakwah, 2020). The lack of transparency in the award of oil concessions are therefore fuelled by greed and selfish gains by these political actors and worsened by poor anti-corruption machineries within institutional structures to avoid these occurrences. Additionally, politicians' acting with impunity without regard for established laws and policies is evidenced in rent-seeking which robs the nation of opportunities for oil extraction to alleviate poverty in the country Andrews & Siakwah, 2020). A point worth mentioning is one indicated by ISODEC (2014) where it is cited that Ghana's capability to refine crude oil has limited opportunities to offer employment for its citizens These narrative had a ripple effect impeding opportunities for citizens, subsequently leading to the increasing rates of unemployment in the country.

Commenting on the activities of transnational oil companies operating in Ghana, Andrews and Siakwah (2020) assert that these companies bear a significant influence on the actions taken by the state due to the substantial affluence and power in governing resource-rich economies. For example, Tullow Oil, a lead operator in the Jubilee Field often has the authority in making decisions, including when to close down the field for maintenance work (Andrews & Siakwah, 2020). Obeng Odoom (2015) adds that transnational oil companies mostly spark inequalities particularly in the distribution of income and productive resources in societies. A point worthy of note in the checks and balance system, is the level of collusion which can be perpetuated by transnational oil companies as this collusion is mostly buffered by GNPC. As affirmed by Andrews and Siakwah (2020), Ghana presents limited opportunities for coalition with foreign investors including transnational oil companies, as there is a lack of total capture of the state by elites and foreign investors due to GNPC's 15% shareholding in the undertaking.

Drawing on the EGS framework, at the interception between Ghana's governing institutions and the resultant resource regimes in the country, either good or bad governance becomes the intermediary determining whether the resource becomes a "curse" or a "blessing" Vatn (2015). According to the EGS model from Figure 5 above, economic actors through their preferences and actions influence political actors' goals and actions, which subsequently determines the governing policies and the resource regime. An empirical case and a practical demonstration of this, has been the scenario occurring between the state and Tullow Oil, a transnational oil company which determines how the Jubilee Field operates and takes major decisions in its management.

The case of Tullow Oil exhibiting great control over operations in the Jubilee Field, has been due to their influence on the ruling government. GNPC as an oil governing institution has had to extensively dialogue with the state to put in stringent measures to control the activities of these foreign oil companies. This included the recommendation of the state to revise its reduced tax rates offered to the foreign oil companies as well as enforcing the policy which advocates for improvement in the local content and participation of Ghanaians in the oil exploration.

This empirical case as indicated above is expounded by Vatn's (2015) Environmental Governance System Framework. According to Vatn (2015), environmental resources, in this case oil, determines the actions and preferences of economic actors (oil companies). These economic actors further influence the goals and actions of political actors. Given the capitalistic nature of the New Patriotic Party, the NPP is mostly liable to this influence from foreign oil companies. The NPP as a political party with its goals (market-based) influences regulatory institutions (GNPC) which governs the policy process of oil exploration. This in turn determines the prevailing resource regime as well as the investment made for technologies and infrastructures used in oil exploration. This also has influence on the patterns of interaction between political and civil society actors and ultimately the state of the resource. In such instances, civil society actors intercept to ensure good governance through the demand for accountability to avoid the occurrence of a resource curse. As affirmed by Andrews & Siakwah (2020), institutions and politics that mould a country’s resource curse, transcends beyond its national borders to include international actors and structures on a global scale. Again, there are unavoidable and inextricably linked interactions among transnational oil companies and donor organizations including NORAD at various levels of governance. This brings to bear the clarion call for good governance to ensure that the resources are explored and utilized for the benefit of the entire citizens.

In addressing the challenge of policy implementation, the respondents recommend that resources are offered at the local level (Public and private/ NGOs) for monitoring and control. A respondent further adds that Ghana must recognize the huge differences between land-based and offshore oil industries (T. Norheim, personal communication, March 21, 2022). Onshore exploration refers to the exploration of oil on land away from the ocean. Offshore drilling on the other hand is the exploration of oil below the ocean bed. The respondent highlights the need to properly streamline policies to regulate both onshore and offshore given the different lines of operations being undertaken in the two oil exploration methods or approaches. Given the productive returns coupled with the number of transnational oil companies operating on the offshore oil fields in Ghana, technological investments are mostly channelled to this sector to maintain the returns generated from those fields. This echoes findings from the works of Sun *et al.*, (2020) who expounded the economic fundamentals which underlie the different returns and the market liquidity of both onshore and offshore oil exploration. Hence emerging policies regulating offshore oil exploration should be more delineated to address pertinent issues including corruption which might occur during oil exploration.

Based on Vatn’s (2015) EGS model, available technologies and infrastructure for oil exploration are determined by ulterior aim of both political and economic actors and what these actors seek to gain from the oil exploration. In Ghana, with the lucrative nature and involvement of transnational oil companies in offshore oil exploration, significant investments are thus made for the exploration of oil within offshore oil fields. Furthermore, according to the EGS model, the environmental resources, processes and their attributes determine the patterns of interaction and finally the resource use and income generated as well as the state of the resource. With oil being a non-renewable resource, transnational oil companies including local oil companies operate to explore the resource knowing that it cannot be replenished. Hence operations are undertaken to cater for their cost of operations whilst generating profits. The patterns of interaction of these oil companies determine the state of the oil resource and the level of pollution to the environment. Additionally, the governing institutions, GNPC, in this case regulates activities of the oil companies, defining resource regimes and whether or not Ghana’s oil becomes a “curse” or a “blessing” either through good or bad governance.

4.3.3 Lack of transparency in distribution of oil revenues

As affirmed by Andrews & Siakwah (2020), Ghana as a nation has obtained substantial revenues from the exploration of oil since 2011, but has failed to meet IMF's suggested goal of US$ 1 billion dollars per year. The authors again question if the amount of oil revenues received by Ghana is enough to cushion the country against experiencing the resource curse. The well-worn public opinion that governmental agencies are deeply entrenched in corrupt practices has been a label held by many Ghanaians over the years. Amidst the bottlenecks, poor accountability has bred inequity and the lack of transparency in the distribution of oil revenues. There are also other underlying macroeconomic issues which have hampered the realisation of Ghana's 'blessings' from oil. As cited in Andrews and Siakwah (2020), natural resources tend to be beneficial in a given society based on the premium placed on these resources. The authors debunk the unilateral relationship postulated between the existence of natural resources and the industrial or economic growth of the country. Oil revenues are channelled into existing regimes of accumulation and various forms of rule giving rise to a developmental complex (Watts, 2010). The Ministry of Finance and Economic Planning (MoFEP) observes a lack of focus in allocation of resources to various sectors of the Ghanaian economy, where goals are not set and targets are not met either (MFEP, 2015). This, according to the report has further led to what has been known as a "democratic curse" where revenues are thinly allocated to a diverse range of projects in the country. This finding is further buttressed by Siakwah (2016) who affirms that given the political characteristic in the country, the two major political parties (the National Democratic Congress (NDC) and the New Patriotic Party (NPP) tend to focus mainly on outcomes of elections in pursuing developmental agendas, and do not consider long-term investments in their development programs.

The role of donor agencies in ensuring that Ghana breaks the syndrome of a resource curse cannot be overemphasized. Aside the Norwegian Agency for Development Cooperation (NORAD), major donor agencies that have operated in Ghana include the World Bank, the German Agency for International Cooperation (GIZ), United Nations Development Program (UNDP) and the Department for International Development (DFID) (Andrews & Siakwah, 2020). These donor agencies play key roles in strengthening efforts made by the government of Ghana to enhance reaping benefits from the nation's oil resources. The aids from donor agencies have been in the form of providing technical assistance, supporting the government in undertaking skills training, while at the same time enhancing transparency and also building organisations and institutional structures (Andrews & Siakwah, 2020).

According to Vatn's (2015) EGS model, civil society actors form an essential aspect in the governance of the nation's resources by ensuring that political actors through the regulatory institutions promote fairness and equity in Ghana's oil sector. This, civil society actors pursue through the demand for good governance and the enforcement of oil policies to ensure an effective resource regime within both constitutional and collective choice rules. In Ghana, the Public Interest and Accountability Committee (PIAC), has been the umbrella institution seeking that operations within the upstream oil and gas subsector are transparent enough to improve the living conditions of Ghanaians. The Norwegian Agency for Development Cooperation (NORAD), has also been a civil society actor as evidenced in their support for the country through the pursuance of capacity building and offering both financial and technical assistance to Ghana in its oil exploration activities.

In scrutinizing actions of the Ghanaian government, Mohan *et al.,* (2018) explore existing tensions in achieving both long-term development goals for the country. The authors also explore the short-term individual interest of politicians mostly aimed at maintaining their stay in office during electoral processes. This conflict of interest particularly occurs among politicians and public officials who are in charge of regulating oil companies and managing funds from oil resources. This is further supported by Mohan *et al.,* (2018) who affirm that political actors have a crude underlying interest of retaining power which they perpetrate through their political settlements in the country. As observed in a study by Essel, (2013), in terms of capacity building, the government of Ghana spent less than 1% of the nation's oil fund in 2011, but spent as high as 22% ($111 in real figures) of the oil fund in the following year (2012) which happened to be an election year. Adam *et al.,* (2013) in an ACEP report, therefore highlight the need to ensure equity in the distribution of funds owing to the scanty allocations being made for developing infrastructure in the country, coupled with the low level of development in other regions of the country.

Civil society actors' values, institutions and actions are essential in order to advocate for good governance in order to generate blessings from the available natural resources. Drawing from the EGS model in Figure 5 above, in instances where the governing institutions and policy processes are not properly put in place, it results in bad governance and ultimately the available resources being a "curse" to the nation despite its abundance. Assessing the relationship between institutional quality, the efficiency of governance, accountability, sustainability and corruption control machineries, Adams *et al.,* (2019) affirms the importance of these in managing and reporting oil revenue in transparency adding that it is key to breaking the resource curse. Additionally, improving the stability of political institutions has also been identified by Andrews and Siakwah (2020) as being key to ensuring human development and increasing the economic prospects of the country.

4.3.4 Reduced oil revenue and national GDP

The key challenges apart from corruption and bad governance have been fluctuating prices of oil, risks involved in the exploration of oil, development expenditures and losses after production (GNPC, 2015).

In 2015, a fall in the average price of oil in the Jubilee crude resulted in substantial declines in revenues obtained by the state. As cited in the GNPC's 2015 Annual Report, the previous year (2014) experienced a decline in prices of oil subsequently giving rise to a concomitant reduction in revenues generated to the state. The price of Dated Brent Crude in 2015 for instance went below US$46.64 per barrel on average as compared to a previously high price of US$104.80 per barrel in 2014. Crude oil from the Jubilee field realized an average of US$52.30 per barrel, an amount well below the US$99 per barrel benchmark revenue price. The sharp drop in revenue obtained by GNPC gave rise to a reduced availability of cash owing to fall in income generation, a weak balance sheet due to the declining value of asset and a reduction in debt capacity (GNPC Annual Report, 2015. p. 47). Additionally, in 2016, Ghana’s GDP growth fell to 3.3% and this was the lowest growth the country had experienced compared with the peak GDP growth of 14%, which was attained one year after oil production began in the country (Dzawu, 2016).

Ghana’s GDP further dipped by 1.7 %, from 8.5 % in 2017 to 6.8 % in 2018 largely fuelled by production shortfalls within oil and gas producing fields. It is further projected that on the medium term between 2018 and 2021, real GDP would average 6.2 % despite the ongoing high government budget deficit and challenges with debt sustainability (GNPC Annual Report, 2018). As evidenced in the GNPC Annual Report in 2015, the revenue obtained by the Government of Ghana shrunk by 57%. The situation is further worsened as a result of an exponential increase in the cost of production as well as in the general high administrative cost. This finding is supported by Quartey & Abbey (2020) who cite that the highest earning from petroleum was obtained in 2014 with a decline occurring in 2015. The decline in revenue in 2015 was due to a reduction in the average price of oil with oil rents (the difference in world price for producing crude oil and the total cost of production) as a percentage of GDP have increasingly gone high (Quartey & Abbey, 2020).

Reports from the Public Interest and Accountability Committee (PIAC), also indicate that Ghana’s GPFs reserves reduced by 24 % at the close of June, 2020. A point worth mentioning, is the lament raised over years by the various leadership of GNPC with regards to improving the gas compressor and riser vibration facility for production (GNPC, 2015; GNPC, 2018). This technological facility, when not in proper working order tends to increase the cost of production, and subsequently reduced returns generated from the oil exploration. Based on the EGS framework in Vatn (2015), the available technology and infrastructures are established depending on the goals of political actors. Along the same vein, the actions and interactions of political actors determine the type of technology and infrastructures that are built. The available technologies and infrastructures as well as the environmental resources and processes determine the preferences and actions of economic actors and the goals of political actors. This has a ripple effect on institutions governing the policy process ultimately determining the prevailing resource regime in the country. Thus, the availability of the right technologies has a significant impact on the outcome of a resource use. In the case of Ghana for instance, the provision of the gas compressor and riser vibration facility would go a long way to assist in the increased production of oil thereby increasing the state’s generated revenue.

Concerning the events which have hampered Ghana’s oil production activities, the interim ruling of the International Tribunal for Law of the Seas (ITLOS), also played a role in impeding operations by further placing restrictions on exploration and drilling of oil fields in 2015 (GNPC Annual Report, 2015. p. 11). This was because during the period of settling the case between the two countries, exploratory activities were halted on the Tweneboa-Enyenra-Ntomme (TEN) fields during this period due to the occurring dispute (GNPC, 2018). Due to this, Ghana’s initial plans to drill three wells which were scheduled for that year could not be undertaken. Also, exploration drilling which was to take place on the CTP Block 4 was further postponed to first quarter of 2019 due to the new schedule of the Offshore Cape Three Points (OCTP) drilling and activities needed for completion (GNPC, 2018). This finding is complimented by reports from the Public Interest and Accountability Commission (PIAC) in 2015 citing that Ghana's oil industry has experienced a major hindrance as a result of an interim ruling given by the International Tribunal for the Law of the Sea (ITLOS) following a national border issue which transpired between Ivory Coast and Ghana. These occurrences have been principal factors which have resulted in the Ghanaian Government's reduced returns from oil and gas exploration over the earlier years.

Statistics form the World Bank on Ghana's oil revenue indicates that Ghana's oil returns as a percentage of GDP saw a sharp decline between 2014 and 2015 with values of 3.90 and 1.41 respectively. This figure, however improved and stood at 4.70 in 2019 (The World Bank, *Ghana; Oil Revenue*, 2022) as shown in Figure 8 below.

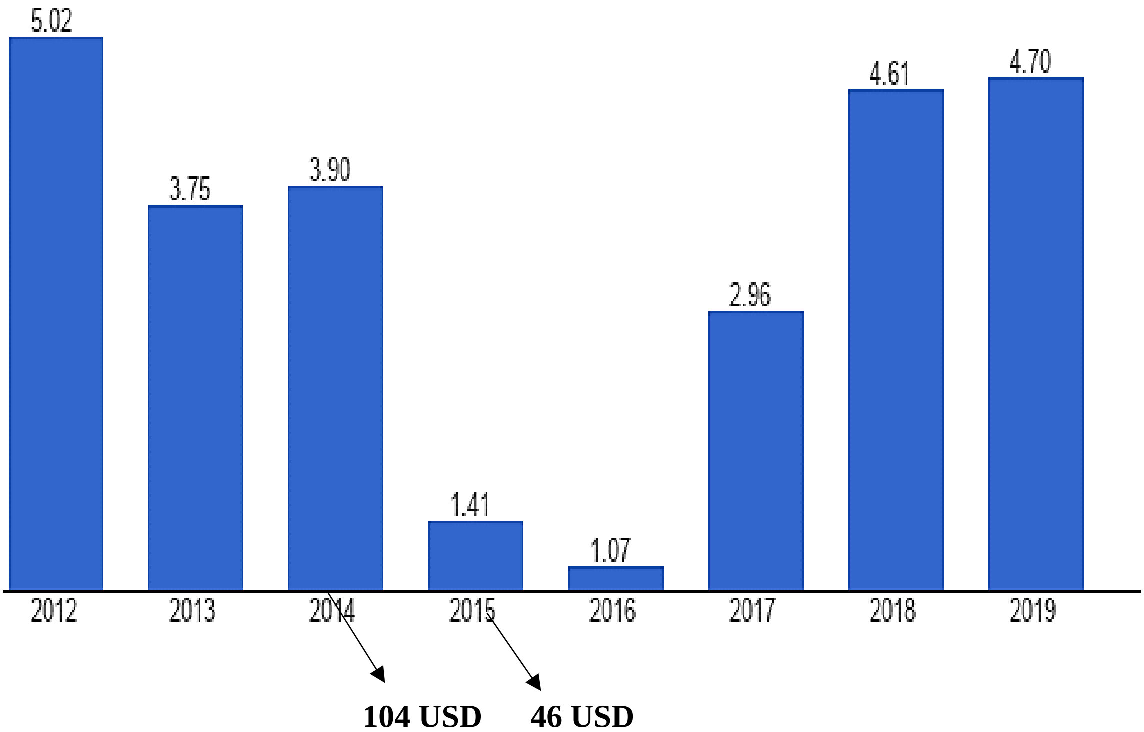

Figure 8: Ghana's Oil returns as a percentage of GDP between 2012 and 2019.

Source: (The World Bank, Ghana; Oil Revenue, 2022).

On a positive note however, an increase in oil prices around the world gave the year '2018' a silver lining, in the period from January to December, when GNPC realised an amount of US$ 473,956. 031 from the total revenue performance (Oil & Gas and Service Income) of the Corporation. GNPC's positive revenue performance was mainly due to an increase in crude oil prices (GNPC Annual Report, 2018). According to the report, the Corporation realised a general average price of US$71.31/bbl as against an estimated price of US$57.36/bbl expected to be obtained from the seven cargoes extracted from both the Jubilee and TEN fields (GNPC Annual Report, 2018. (p. 21)). This progress was however short-lived as the nation has been unable to keep up with future fluctuations in the fall of oil price since 2018. Hence the prices of oil on the world market has been a driving force determining the returns which Ghana derives from her oil exploration activities. This assertion is further buttressed by the Public Interest and Accountability Committee which affirms that oil prices on the international market has been on the decline since 2014 with Ghana experiencing dramatic fluctuations between 2014 and 2016 (PIAC, 2020).

In terms of financial provisions, the lack of financial investment in the sector has crippled efforts aimed at realising high benefits from exploring Ghana's oil and gas resources. In 2016 for instance, there was no money allotted to the Ministry of Petroleum as a regulating agency to cater for capital expenditure (Ministry of Energy, 2018. *Petroleum regulations.* (p. 4)). This has the tendency to breed corruption particularly in these governmental agencies in the discharge of their duties. Furthermore, the Jubilee Field encountered some challenges within the first quarter of 2016 which lead to a considerable reduction in production volumes, gas export and consequently the lifting of crude oil. This was mainly due to damage on the turret bearing of the FPSO Kwame Nkrumah leading to a shutdown for about two months (Ministry of Energy, 2018. *Petroleum regulations.* p. 11). These occurrences have resulted in the reduced returns to state, hence the Ghanaian government's inability to properly ensure the existence of state welfare, providing infrastructure and employment, reducing government's debt and borrowing and ultimately improving the lives of citizens in the country. As supported by findings from the Scanteam Report in 2019, on the *Oil for Development Program*, the authors indicate that Ghana as a nation has well carved out policy, administrative and legal frameworks for good sector governance, organizational and individual development. On the other hand, the implementation of these policies according to the report leaves much to be desired. The authors affirm that these policy frameworks and institutional setups have the tendency of outliving their efficacy with time hence the inability to enforce them to the latter. This is as a result of the regulatory institutions lacking the requisite manpower and logistics from the government to be able to enforce the policy formulations to the latter, thus rendering these institutions to be inert in nature with time.

Ghana projects to earn over one billion dollars ($1bn) in oil per year from 2022 to 2025. According to Reports from the Ministry of Finance, these forecasts are higher as compared to the Ministry's previous estimates which pegged projections for Ghana's oil revenue around nine hundred million dollars ($900) per year until 2024. Despite the current decline in productions, the nation is optimistic in generating higher revenues from oil production (Hawilti, 2021)

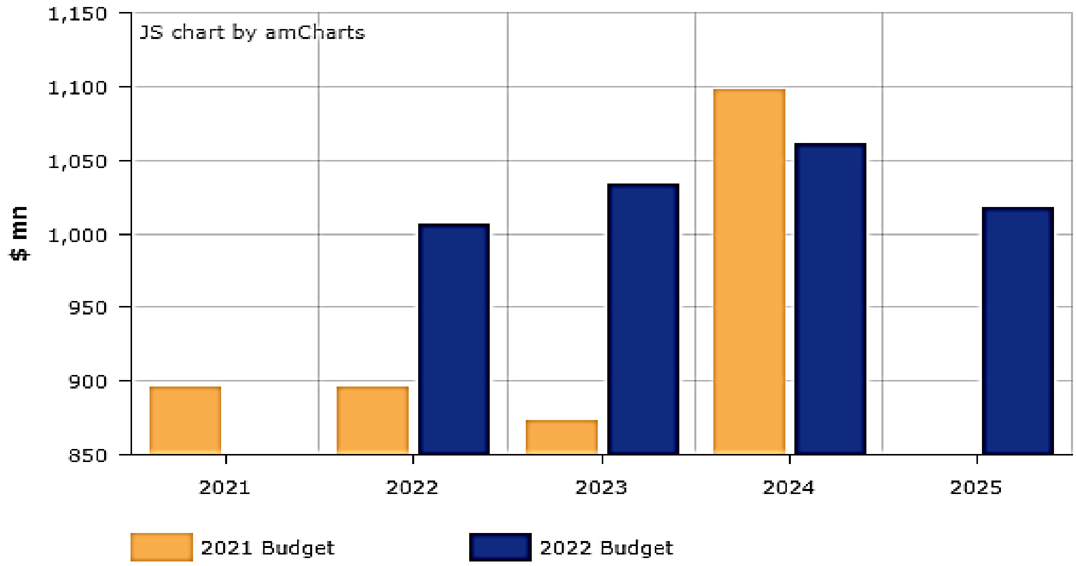

Figure 9: Ghana's Projections on Earnings from Oil from 2021 to 2025

(Source: Ministry of Finance, 2021)

Ghana's budget on crude oil production has been revised further until 2025. According to the state budget, Ghana is expected produce around 60 million barrels of crude oil per year in the short-term between 2021 and 2025. A new postulation which was made in 2021 however projects oil production to decline to 55 million barrels in 2023 and 2024, and further reducing to 52 million barrels in 2025 (Hawilti, 2021).

In summary, Ghana seems to have and partly enjoys high returns from the oil. There are however also issues both around bad governance and corruption but also issues around global prices fluctuating and technological challenges, as well as the lack of effective cooperation that generate challenges for the wise governance of oil in Ghana. A point worth mentioning as emphasized by Andrews and Siakwah (2020) is the fact that a country's oil revenue as percentage of GDP is largely determined not by only the price of oil, but also by the quantity of oil produced within the given time. This was affirmed when Ghana's oil production in 2018 in terms of quantity was compared with other countries such as Algeria, Angola, Ecuador, Equatorial Guinea and Gabon. According to findings from the study, the countries which recorded a high level of production equally reported a commensurate higher contribution and fraction of oil revenue as a percentage of the country's GDP.

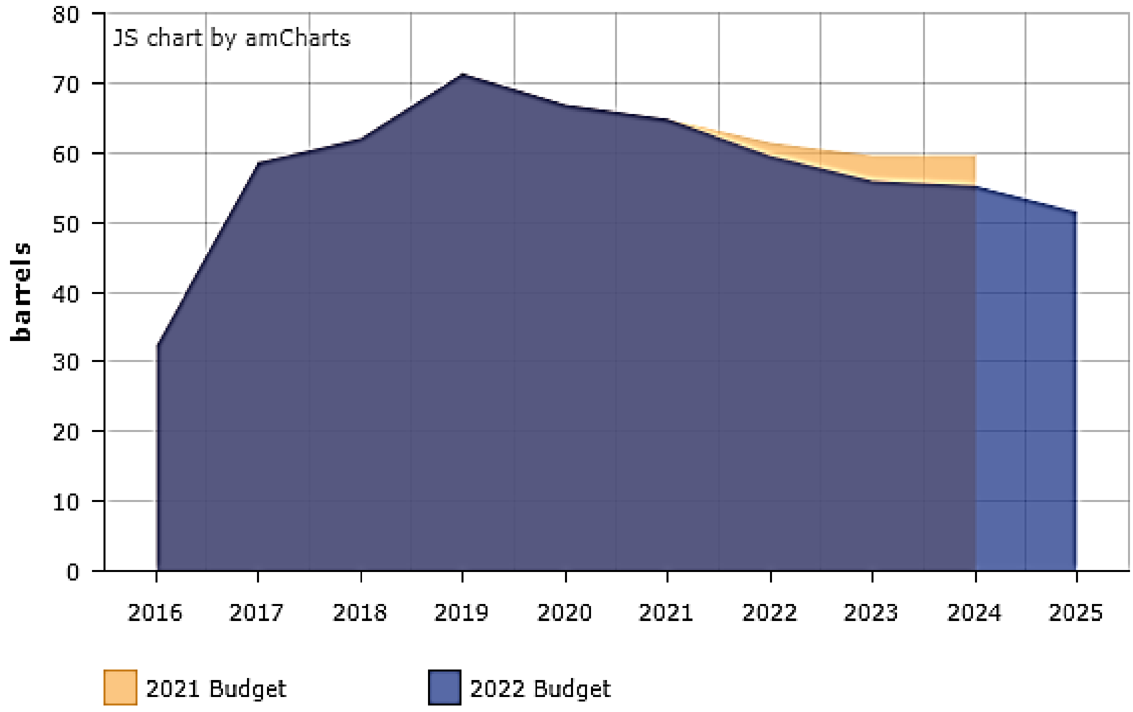

Figure 10: Ghana's Budget on Crude Oil Output between 2016 and 2025.

(Source: Ministry of Finance, PIAC [2016 – 2020 figures represent actual output])

4.4 Institutional Interventions to Breaking the Resource Curse in the Country

Nationally, the revenues generated from gas and crude oil production is documented based on the terms and conditions of the relevant Petroleum Agreement and the Petroleum Revenue Management Act 815, 2011 (PRMA). The PRMA clarifies the distribution proceeds from crude oil firstly between the State and GNPC. This revenue is largely dependent on the levels of crude oil production. Hence reduced production of crude oil connotes a commensurate reduction in revenues generated to the state aside other economic underpinnings such as the price of the oil. As indicated in GNPC's Annual report in 2015, *"Revenue represents the equity financing costs and the cash or the equivalent barrels of oil ceded to the national oil company coming from the sharing and partaking interests commended by the Minister of Finance and endorsed by the Parliament of Ghana"* (GNPC Annual Report, 2015. p. 89).

In governing revenues obtained from both local and transnational oil companies, the Minister in accordance with subsection (3) of Section 85 of the Act requests that a contractor pays royalty to the Ghanaian Government in cash. This royalty would according to the Act, be calculated at the agreed percentage of the value of the gross volume of petroleum which the company produced and saved. In instances where royalty is to be paid in cash, a contractor needs to pay the royalty in compliance with the provisions of Section 85 of the Act and the Petroleum Revenue Management Act, 2011 (Act 815). Again, pursuant to the provisions of Article 10.7

of the Petroleum Law, twelve and one half percent (12.5%) of the Gross Production of Crude Oil will be apportioned to the state known as ROYALTY. Additionally, under Article 2 in the scope of the agreement and interests of the parties, ten percent (10%) initial interest or first returns in all petroleum operations will be allocated to the Ghana National Petroleum Commission. These funds constitute revenues generated to the state and are utilized for development projects in line with the agenda of the government of the day in the provision of social amenities and running affairs of the country. 70% of the revenues generated according to the Public Interest and Accountability Committee are utilized for the provision of national infrastructure to promote social and economic growth and development (PIAC, 2021).

GNPC, as a governmental institution, has been committed to ensuring local participation in the nation’s supply chains as well as providing support education and training to Ghanaians to equip them with skills needed to work in the fields thereby realising GNPC’s role of improving the lives of citizens. The establishment of economic empowerment programs in societies and the provision of social infrastructure in various communities in which the Corporation works has remained unparalleled according to the Corporation’s report in 2015. For example, the Corporation ensured that basic educational and social infrastructure were provided to deprived communities within its operational territory as part of its corporate social responsibilities (GNPC, 2015).

The Corporation, according to the GNPC Annual Report in 2018, however affirms that GNPC has to offer more to improve the lives of citizens in the country. The Ghana National Petroleum Corporation has in essence established the GNPC Foundation into full operation to enhance its Corporate Social Investment (CSI) mandate of improving lives across Ghana through its three operational units: Education and Training, Economic Empowerment and Environment and Social Amenities (GNPC Annual Report, 2018. p. 3).

The Public Interest and Accountability Committee recommends a continual monitoring for projects being undertaken under the Corporate Social Responsibilities to avoid spill over of expenditure unto to next year (PIAC, 2020). Additionally, the Petroleum Commission has further developed Community Relations Social Investment Plans (CORSIP) for implementation within various Districts in the Western Region following a review conducted with relevant stakeholder engagement (Ministry of Energy, 2017). The initial Petroleum Revenue Management Act (2011) Act 815 has been amended and replaced with the eight hundred and ninety-third Act of the Parliament of the Republic of Ghana (Act 893) in 2015. This amendment provides for imbursement of the Ghana Infrastructure Investment Fund for infrastructural development within the country. Additionally, the amended Petroleum Revenue Management Act (2011) seeks to preserve revenues generated from petroleum resource exploration and forbids Government’s borrowing against the petroleum reserves. This in effect would reduce the nation’s debt to GDP ratio.

Commenting on the areas of the economy where oil proceeds have supported the most between 2010 and 2022, industrial development (creation of factories) and the development of social infrastructure (roads, electricity, hospitals) took the cream of the nation’s oil revenue. State welfare and support for the agricultural sector however had the least in terms of support from oil revenue allocation by the government of Ghana (T. Norheim, personal communication, March 21, 2022; E.K. Asare-Duah, personal communication, April 21, 2022). This goes in line with a study by Ackah & Salifu (2018), which indicated that infrastructure and human settlement development were supported the most. According to their findings activities to ensure and sustain macroeconomic stability and development of the agricultural sector had the least support. This is shown in Table 4 below.

Table 4: Areas of Ghana's economy oil revenues have supported (2010 – 2017).

Sector	Percentage (%)	Comments
Infrastructure and Human settlement Development	43	This sector was supported the most with revenues generated from the country's oil exploration. It included the construction of roads, hospitals and market centres.
Human Development	23	Human development formed a key sector which was also given attention by the government. It also included investment in secondary and vocational training institutions in the country. This score for human development is however contested with observation from responses obtained in this study conducted. The lack of development in the nation's human capital has been observed as a factor contributing to the resource curse according to findings from my study.
Ensuring and sustaining macroeconomic stability	2	Enhancement of macroeconomic stability was the least supported sector of the economy where oil proceeds have supported.
Enhanced competiveness of Ghana's private sector	4	This included the support offered by the government to the private sector as observed in the public-private partnerships and the creation of enabling environment for start-up businesses to thrive.

Accelerated agricultural modernization and natural resource management	3	Agriculture and the natural resource management sector was also given lest priority in terms of allocating revenue from oil.
Oil and gas development	12	The oil and gas sector also saw development through the revenues generated from the oil and gas sector.
Other	13	Other areas of the economy including the payment of public sector workers and the establishment of emergency holding funds for future and unexpected events were also supported by oil revenues.

(Source: Ackah & Salifu, 2018)

In recent developments, the Ghana National Petroleum Corporation's flagship program has been the commencement of the Voltaian Basin Project. This is as part of efforts aimed at reaping maximum benefits from the nation's petroleum resources for the people of Ghana. The Corporation further champions for the commercial operatorship and ownership of the nation's gas asserts by initiating the 2D seismic data acquisition and processing, community relations management as well as environmental impact assessment as part of the Voltaian Basin Project (VBP) (GNPC, 2018).

Ghanaians are offered at least a 5% equity participation through an indigenous Ghanaian company other than the Corporation which is given first preference in granting a petroleum agreement or a licence to undertake oil exploration. This is implemented in line with provisions from the Petroleum Local Content and Local Participation Regulations (2013). As of 2017, reports indicate that the entire workforce within the oil and gas industry comprised of almost eighty per cent (80%) of Ghanaians (Ministry of Energy, 2018. *Petroleum regulations.* p. 12). Rawl's second principle; the Equity Principle is an advocate for "fair equality of opportunity". According to this theory of distributive justice, societies always exhibit inequalities among the people either in one form or the other, particularly in the distribution of resources. Rawl in his second principle therefore advocates for best approaches to ensure a just society with equality where there are fair and equal opportunities for all (Rawl, 1999).

The Petroleum Commission Act, 2011 (Act 821) seeks to ensure the resource curse syndrome is subdued through ensuring transparency and accountability in the dissemination of revenues while at same time developing the nation's human capital. As outlined in the Act, it seeks to;

"(a) promote the maximisation of value-addition and job creation through the use of local expertise, goods and services, businesses and financing in the petroleum industry value chain and their retention in the country

(b) develop local capacities in the petroleum industry value chain through education, skills transfer and expertise development, transfer of technology and know-how and active research and development programmes

(c) achieve the minimum local employment level and in-country spend for the provision of the goods and services in the petroleum industry value chain as specified in the First Schedule

(d) increase the capability and international competitiveness of domestic businesses

(e) create petroleum and related supportive industries that will sustain economic development

(f) achieve and maintain a degree of control for Ghanaians over development initiatives for local stakeholders".

(Petroleum (Local Content and Local Participation) Regulations, 2013. p. 4; 13-Local-Content-and-Local-Participation-Regulations-L_I-2204.pdf).

A Policy on Local Content and Local Participation Policy for the Petroleum Downstream was sent to Cabinet in 2017 to increase local content in the petroleum downstream to over 80 % in the next five years. Ministry of Energy, 2017. p. 12. These are efforts aimed at accelerating the development of local content and ensuring broader local participation in petroleum activities. Furthermore, to maximize local participation in all aspects of Ghana's petroleum industry value chain, the Petroleum Management Act 2011, Act 815. p. 10 requires that human resources are developed for the petroleum sector. The Law also demands for transparency in the management of petroleum resources (Ministry of Energy, 2018. *Petroleum regulations.* p. 2).

Commenting on the aftermath of oil exploration, the Scanteam analysts and advisors for NORAD's *"Oil for Development Program"* in Ghana identify arising issues with regards to the effect of environmental externalities of various oil exploration activities on local communities. Quartey & Abbey (2020) for example identify the lack of infrastructural development mostly in local communities which fringe these exploring companies with Aryeetey, *et al.*, (2014) further adding that the economic and social infrastructure and facilities in these communities keep declining with each passing year. This occurrence in my opinion is a "double slap" to these local communities. The Scanteam analysts and advisors nevertheless emphasize the role of both Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) as panaceas in addressing this challenge. The Scanteam Report (2019) additionally affirms the roles of the Ministry of Environment, Science and Technology (MESTI) as well as the Environmental Protection Agency (EPA) by putting up infrastructural development to reduce the impact of oil and gas exploration on the environment. Major challenges that have crippled efforts aimed at improving the lives of Ghanaians have been the lack of transparency in the allocation of revenues and concerns about the protection of the environment (T. Norheim, personal communication, March 21, 2022). The respondent is quick to add that *"There are different social and environmental challenges on land compared with what they are used to off-shore".* Socially, identified challenges have included the skewed attention given to offshore oil production due to its increasing returns coupled with the high level of corruption perpetrated mostly by both oil companies and political elites in the society. Environmentally, the ecological footprint of oil production on terrestrial life (onshore) and on aquatic life (offshore) including oil spillage have been challenges requiring proper delineation to address with relevant policy formulations.

4.5 The Dark underbelly of Ghana's oil industry; *Conflicts of interest*

Despite the promising outlook of Ghana's oil and gas industry, there has been a good number of conflicting interests which have impeded the progress in governance of Ghana's oil resources. These conflicts of interest have been mostly due to political as well as institutional interests in the governance of Ghana's oil, hampering efforts aimed at breaking the resource curse. These conflicts are discussed as follows.

Primarily, the dual role of the Ghana National Petroleum Corporation (GNPC) both as a regulatory institution and a major player in the upstream oil and gas sub-division necessitated the establishment of the Petroleum Commission to handle the supervisory role of GNPC. The story however does not end here as Andrews and Siakwah (2020) raise a crucial issue of concern. The authors advocate for proper cooperation between the Ghana National Gas Company, the Petroleum Commission and GNPC, particularly considering their roles in the discharge of the duties whilst dealing with foreign investors. According to the authors, competition for resources and level of influence, in the governance of Ghana's oil extraction could trigger a zonal war among these regulatory institutions. Even within institutions, there can be internal wrangling which hamper the effective action of the institution. For example, in February 2019, a zonal war occurred between the Chief Executive Officer and the Board Chairman of GNPC with regards to recruiting a procurement officer (Andrews & Siakwah, 2020).

Additionally, politicians sometimes impede the proper functioning of regulatory agencies in the governance of Ghana's oil resources. Politicians, according to findings from Andrews & Siakwah (2020) resort to oil revenue as a source of their sustenance with Jean-Francois (1993) and Lindberg (2003) referring to this form of parochial politics as *"the politics of the belly"*. According to the authors, the political elites see procurement as an instrument which they can utilize to milk the oil industry which they see as a cash cow, hence the strive for the cream. GNPC is for instance utilized in such instances to perpetrate their ulterior agenda and in instances where GNPC tries to resist this form of influence these politicians devise means to press home their demand (Mohan *et al.*, 2018).

Furthermore, as affirmed by Khan (2010 p 27), informal engagements and institutional arrangement result in the allocation of resources in the hands of few powerful groups in the society. This, according to the author, is mostly to generate economic returns for these groups mostly based on their political party affiliations and also dependent on the government in power. Khan (2010) expounds on clientelism as a phenomenon in politics particularly in developing countries where productive areas of the economy are not developed to have a ripple effect on other areas of the economy resulting in the lack of proper allocation of resources. As observed by Mohan *et al.,* (2018), the clientelistic characteristic of the Ghanaian politics has given more room to informal institutions which oversee the governance and development agenda in the country. This according to the authors have resulted in the lack of appropriate allocation of resources and proper redistribution in the country through formal mechanisms. This has resulted in the reduced output legitimacy for the country's regulatory and policy formulations.

Another crucial factor which has reduced the output legitimacy of policy formulations has been the patronage of citizens by politicians during national elections. The dynamics of the eastern and western regions of Ghana as swing regions during elections, in the sense that these regions have the tendency of shifting votes from one major political party to another, has rendered these regions as targets of interest for politicians during national elections. The discovery of oil particularly in the western region has drawn the attention of politicians to the region who try to win the support of its people. During the 2008 presidential elections for instance, the NDC promised the western region of massive infrastructural development should they come into power. This was followed by request from chiefs in the western region demanding for 10% of oil proceeds for the region, a recipe for inequity in distribution of proceeds nationally should other regions also make similar requests based on their available natural resources. Despite being promised by the NDC, this request by chiefs from the western region however was not granted due to its future repercussions on the economic and democratic stability of the country (Mohan *et al.,* 2018). This occurrence expounds the critical nature of patronage and partisan politics being perpetuated by major political parties in their quest to maintain power during national elections.

Conclusively, despite the bottlenecks in the governing system, Ghana as a country has well-crafted policy formulations aimed at improving revenue generation and allocation for development in the country. Developmental projects are undertaken as part of Corporate Social Responsibilities to enhance the lives of Ghanaians, but there is much room for improvement. Local content is also being enhanced to increase the rate of employment for Ghanaians in the oil and gas industry. Finally, as part of efforts to ensure the living standards of Ghanaians are raised with minimal impact on the environment, the Environmental Protection Agency (EPA), and the Ministry of Environment, Science, Technology and Innovation (MESTI) are both putting up infrastructure to reduce impacts of oil exploration on local communities. However, this development in my personal opinion would only be able to achieve the desired feat when these local communities are fully engaged as part of the program, such that these communities have a sense of ownership needed to promote the maintenance culture for the infrastructure and general sustainability for the program.

4.6 Key relevant features of governance discourses (approaches) in Ghana

4.6.1 Level of Civic Environmentalism/ Green Governmentality in the governance of Ghana's oil

Green governmentality as a form of environmental discourse comprises the governance of various entities including people, individuals as well as the natural environment. Michel Foucault in the late 1970s, postulated governmentality as being in connection with a range of logics, institutions and agencies seeking to shape human behaviours within societies Bäckstrand, & Lövbrand (2006). This, according to the authors is achieved through disciplinary approaches where power is utilized to modify the choices made by individuals and groups of people, such they adjust their lifestyles and aspirations.

Bäckstrand, & Lövbrand (2006) expound the environmental discourse of civic environmentalism as one linked with the United Nations Conference on Environment and Development (UNCED) which was held in 1992 in Rio de Janeiro, where the concepts of "stake-holding" and participation got into the global environmental agenda. The idea of *"democratic efficiency"* narrative in this concept highlights that, to be effective in making decisions for problem solving in the environment, various groups of people who are affected by environmental problems and who have genuine interest or stake in the welfare of the environment, should contribute in finding solutions to the identified problem. According to the authors, as a "bottom-up" approach in addressing identified environmental problems, civic environmentalism has been iconic both in academic debates and in policy practice after the 1992 conference in Rio de Janeiro.

Findings from the study ascertained to a greater degree the exhibition of civic environmentalism in the protection of the environment. For example, with a 5 – year pre-exploration plan, GNPC introduced programs to include the conduction of reconnaissance survey on the field, assessment of environmental impact and stakeholder and community engagements (GNPC, 2015). The acquisition and utilization of seismic data has also been planned by the Corporation to aid with the Voltaian Basin's pre-exploratory activities (GNPC Annual Report, 2015. p. 13). Additionally, the Corporation has implemented policies to support the protection of the environment to ensure that the safety procedures employed in the exploratory and production activities are adhered to (GNPC, 2015). As affirmed by Bäckstrand, & Lövbrand (2006), civic environmentalism expounds on the premise of deliberated actions which involves inclusion of essential parties in the outplay of power in its governance approach. This form of environmental discourse typically combines both efforts by the state and civil societies in the protection of the environment. Again, in terms of stakeholder and community engagement, the Voltaian Basin Project Team in 2018 had interactions with the Tamale Metropolitan Assembly to: make them aware for example of a planned route for the Acquisition-VB 105 (under VBP) in one of the busy locations in the Tamale township (GNPC Annual Report, 2018. p. 24). Furthermore, the Corporation held Town Hall meetings in the Kwahu Afram Plains as part of efforts to deepen community understanding of the VBP and to further secure the community's subscription and co-operation.

According to GNPC's Annual Report in 2018, during the exercise a total of 26 communities were visited in both the North and South Districts of the Kwahu Afram Plains (GNPC Annual Report, 2018. p. 24). Given the stable democracy in the country coupled with a strong outlook with regards to the nation's political stability reports have indicated that the environmental, social and political impacts of oil exploration on the country have been relatively low (GNPC, 2015). There is therefore the need to enhance dialogue between governmental and non-governmental stakeholders.

In his work, *"Something that the NGOs do?",* Vedeld (2017) expounds on the concept of participation as being relational to how the various forms of power are exhibited in terms of how they are managed to address crucial issues within societies. According to the author, the concept of participation in governance envelops how decisions are made, the stakeholders involved, where the decision is taken, when and for what purpose that decision is taken. In the broader sense, participation includes the all-inclusive approach of involving citizens to partake in dialogue in decision-making to address developmental problems and issues of public concern Vedeld (2017). To empower indigenous people and civil societies, for improved participation, a respondent recommends the enhancement of dialogue and bridging the communication gap between the indigenous people, civil societies and the oil exploration industries (E.K. Asare-Duah, personal communication, April 21, 2022). The respondent also recommends for strengthening local communities and municipalities by including Free, Prior and Informed Consent (FPIC) before petroleum on their land. The respondent also advocates for the involvement of the indigenous people in decision-making processes as part of efforts to protect the environment (E.K. Asare-Duah, personal communication, April 21, 2022).

As a form of green governmentality, ACT 490 Environmental Protection Agency ACT, 1994 has been instrumental in amending and consolidating the law in relation to the protection of the environment. The Act has been key and relevant in co-ordinating activities of bodies which are involved in the practical or technical aspects of the environment and also serve as a medium of communication between these bodies and the Ministry of Environment. The Act further has the objective of regulating how industrial waste are generated, treated, stored, transported and disposed. These are enactments aimed at improving the quality of the environment whist at the same time controlling the discharge of waste into the environment (GNPC, 2018). Additionally, Article 17 on the inspection, safety and environmental protection authorizes GNPC to ensure that oil exploration companies adhere to all environmental laws and regulations issued by the Environmental Protection Agency. This demonstrates a good level of co-operation between the EPA and GNPC in protecting the environment. Article 7 on the obligations of contractors and GNPC, the contractor is required to perform all operations diligently, efficiently and economically. The provision under section 3 of the Petroleum Law also requires the contractors ensure recovery, prevent the wastage of petroleum products. It also ensures that the activities of these contractors abide by all petroleum industry and engineering practices. Failure of the contractor to comply with this regulation will result in the termination of contract permitting the exploratory activity. As affirmed by Bäckstrand, & Lövbrand (2006), green governmentality in governance has a strong state component which utilizes the representative rule and exercise power through regulatory agencies. A key concern as outlined by Quartey &

Abbey (2020) however has been an issue with the country's governance regime citing that there is disregard and non-compliance with the country's legal instruments and various key provisions meant for the upstream oil and gas sector. According to the Environmental Governance System framework, the environmental processes and their attributes determine the preferences and actions of economic actors (indigenous and transnational oil companies) determine both the resource regimes and patterns of interaction. This ultimately defines the resource use and the state of the resource and subsequently the state of the environment (Vatn, 2015). An overview of the environmental discourse of civic environmentalism and green governmentality is given as shown in Table 5 below.

Table 5: An Overview of the Discourses of Civic and Green Governmentality in Ghana

Agenda/ Issue	**Civic environmentalism**	**Green governmentality**
View on state	Identifies the state as being democratic and all-inclusive in protecting the environment	Within this discourse, the state is known as the machinery for enforcing efforts to protect the environment
Participation	Involves key stakeholders affected by environmental problems as well as community engagement	Effected through regulatory agencies who implement enactments
Approach	Combines both efforts by the state and civil societies in the protection of the environment	Disciplinary approaches are employed where power is utilized to modify the choices made by individuals and groups of people

(Source: Bäckstrand, & Lövbrand, 2006)

Given the two discourses of civic environmentalism and green governmentality, Ghana appears to be threading the right path in protecting the environment by engaging and embracing the collective efforts of communities and civil societies in the protection of the environment. The role of green governmentality despite its setback in ensuring an all-inclusive approach, its relevance cannot be underestimated in shaping the behaviours and actions of people and groups of people living in the society.

4.6.2 Political discourses affecting the governance of Ghana's oil

Thorp *et al.*, (2012) identify a number of underlying causes of the resource curse given the nation's governance and the quality of its institutions. These factors include collusion between public and private actors, mostly between contractors or oil companies and regulatory institutions, corruption, the lack of diversification of the Ghanaian economy, as well as the worsening economic, political and ethnic inequality in the country. These factors have strong linkages with the prevailing national politics and political discourses occurring in the country. For example, in terms of ethnicity, the NPP and NDC have different affiliations to the western and eastern zones respectively due to their position as swing regions determining the outcomes of elections. Hence their pursuit of developmental agenda is largely dependent on the geographical location, mostly in areas where they receive significant votes during democratic elections. This practice is made easier as these parties champion the zero-sum game where “winner takes all” (Siakwah, 2016).

Another striking factors is the fact that the NDC has placed priority in developing the nation using the state as a machinery to ensure a more inclusive development of the country. This goes contrary to visions of the NPP which rather views the nation as a capitalist state and pursues development agenda through market based approaches and works to attain this through the private sector (Mohan *et al.,* 2018). This has resulted in NPP’s efforts aimed at enhancing capitalism in the country by the removal of various rudiments such as reduction in tax rates to attract more foreign companies to invest in Ghana. As observed by Mohan *et al.,* (2018), the NPP has been engaged in bouts of tussle experiencing opposition from the GNPC largely due to the repercussion of a policy for reduced tax rates on foreign oil companies could have on the country’s economy.

De Medeiros Costa & dos Santos (2013) view the resource curse as a political problem or institutional weakness which can be averted by properly addressing political underpinnings particularly decision making processes. The authors add that strengthening institutions is a key panacea to breaking the resource curse based on the rule of law index with Brazil’s oil and gas industry. The role institutions play in determining a country’s resource regime and subsequently moulding and shaping development outcomes has rendered the resource curse to be viewed as a “governance curse” (NORAD, 2013). Institutions, social relations, policy and politics as well as the foundation (history) on which these elements are built are crucial to properly dissecting the curse theory (Andrews & Siakwah, 2020). As affirmed by Appiah-Adu and Sasraku (2013. p 27), “good” governance is crucial to increasing Ghana’s prospects to properly tackling the resource curse and ensuring equity nationally. This brings to bear the tantalizing issue that “good” or “bad” governance is not relegated to the state but, entangled within a complicated network of local, national and global levels and scales of governance.

In Ghana for instance, the two major political parties, that is the National Democratic Congress (NDC) and the New Patriotic Party (NPP) tend to criticize each other relative to how the country’s resources are explored and the use to which they are put. The issue is further aggravated due to the divergent ideologies of these major political parties in governing the nation’s resource regime. Whereas the NDC supports a socialist system, the NPP advocates for a market-based or capitalist state. An overview of the political discourses in Ghana is given as shown in Table 6 below.

Table 6: A comparative analysis of the political discourse in Ghana

Aspect	New Patriotic Party (NPP)	National Democratic Congress (NDC)
Governance approach	Holds a capitalist view, recognizes the nation as a capitalist state and pursues development agenda through market based approaches and works to attain this through the private sector	Has a socialist view, places emphasis on developing the nation using the state as a machinery to ensure a more inclusive development of the country
Ethnic affiliation on electoral basis	Affiliated to the Western zone or regions of the country due to their nature as swing regions in elections.	Affiliated to the Eastern region or zones of the country due to their role in determining outcomes of elections.
Pursuing developmental agenda	Both political parties however champion the zero-sum game where "winner takes all" after elections. These political parties also undertake more developmental projects in areas where they receive the majority of their votes during national elections.	

(Sources: Andrews & Siakwah, 2020; Mohan *et al.*, 2018)

The prevailing political discourses in the country have contributed to the occurrence of a resource curse in the country. It is therefore imperative that emerging policies further look into the agenda and visions of these political parties for the state if the syndrome of a resource curse is to be broken.

4.7 Ghana's emerging policies to address the identified issues of governance

4.7.1 Introduction

This section provides an overview of strides taken by Ghana to overcome the syndrome of a resource curse. It spells out regulations which are binding to oil companies and also defines the paths the country is taking to overcome the bottlenecks impeding the nation's efforts to reap the best out of its oil resources.

With the resource curse theory being an awakening concept for an improvement in the living standards of countries heavily endowed with natural resources, Ghana as a developing nation has taken steps to improve production and ensure transparency in the upstream petroleum sector. According to GNPC's annual report in 2018, the Government of Ghana is prepared to improve the production, collection, management and use of revenues accrued through the introduction of licensing bid rounds for oil blocks to ensure that the most financially and technically competent companies are nominated to extract the nation's petroleum resources. As evidenced, the implementation of the first Oil and Gas Licensing Round for Offshore Oil Blocks in the Cape Three Points in 2018, for instance evaluated sixteen (16) bid submissions to pick the best company to undertake exploration (GNPC Annual Report, 2018. p. 5). The Petroleum (Exploration & Production) Law 1984, PNDC Law 84 was enacted to provide a framework for exploring Ghana's hydrocarbon resources, and further established the contractual relationship among the state, GNPC and prospective investors including multinational oil companies in upstream petroleum operations. Additionally, the PNDC Law 84 offered GNPC the right to enter into any open land or zone to undertake exploration activities. The PNDC Law 84 has since been repealed and replaced by the Petroleum (Exploration and Production) Law, 2016 Act 919, which became operational in 2016 (GNPC, 2018).

As part of efforts to ensure that there is transparency and accountability, the companies code, 1963 (Act 179) regulates activities of the Ghana National Petroleum Corporation and requires the directors to submit consolidated financial statements for each financial period. This, according to the code, should provide a true and fair outlook on the Corporation's state of affairs and profits or losses accrued within that period of time. To prepare the consolidated financial statement, the Directors ensure that suitable accounting policies are followed and applied consistently. It also requires that reasonable and prudent judgment and estimates are made in preparing the consolidated financial statements (GNPC, 2015). In reporting about financial issues, the directors of various departments within GNPC ensure that annual reports are made following the International Financial Reporting Standard (IFRS), and in accordance with provisions of Ghana National Petroleum Corporation Law, 1983 (PNDC Law 64), Petroleum Revenue Management Act, 2011 (Act 815) as amended and the Ghana Companies Act, 1963 (Act 179). These are essential to ensure that the reports are devoid of misinformation either by error or deliberately as a result of fraudulent activities. To complement this, audits are further conducted in compliance with International Standards on auditing (GNPC, 2018).

The good news which greeted Ghana was the ruling by the International Tribunal for the Law of the Sea (ITLOS) in favour of Ghana, where the country essentially retained its historical maritime boundaries. This development has further increased the desire to invest in Ghana's oil and gas sector, hence the industry has evolved with well-anchored and strong regulatory framework which clearly defines the roles of institutions in implementing these policies (GNPC, 2018). Currently, there are 17 PAs in offshore operations, with a newly added company, ExxonMobil now pegs the total number of existing Pas in offshore operations to 17, where ExxonMobil would have the right to production and exploration over the Deep-Water Cape Three Points (DWCTP), following Parliamentary ratification (GNPC Annual Report, 2018. p. 13).

Additionally, in terms of stakeholder engagements and arrangement, the Companies Act 919 also demands that all persons (or entities) who seek to carry out activities of oil exploration in Ghana should do so in partnership with the Corporation and the Government of Ghana (GNPC, 2018). Companies Act, 2019 (Act 992) as spelt out by the constitution of Ghana regulates the operations of companies including transnational oil companies in the country. Activities regulated by the Companies Act 992 include the right to form a company and the procedures to be followed in order to operate as an oil company in Ghana (GNPC, *Companies Act,* 2019).

Furthermore, the passage of Petroleum (Exploration and Production) Act 2016, Act 919 was done to ensure transparency, accountability and the prudent management of Ghana's oil and gas resources as affirmed by the Ghana Civil Society Platform on Oil and Gas (GCSPOG). The Petroleum (Exploration and Production) Bill 2016 was fully passed into law on the 4th of August, 2016 to replace the initial Petroleum (Exploration and Production) Law, 1984, Act 84 (Ministry of Energy, 2017. p. 10).

Another development has been the establishment of the Statistics, Research, Information and Public Relations directorate of the Ministry of Energy to conduct research and to seek for information and data needed to aid decision-making relevant to the achievement of the sectoral objectives and goals for the good of the Ghanaian society (Ministry of Energy Report, 2017. p. 24). A point worthy of mention is that, the directorate according to the Ministry of Energy, is however often unable to effectively carry out its mandate. This has been due to underlying factors such as poor budgetary allocation, inadequacy in Staffing, inadequate Capacity of available Staff, in key areas such as data collection and analysis, Communications and Information Technology (Ministry of Energy, 2017).

Additionally, the Budget Program undertaken by the Petroleum Directorate of the Ministry of Energy was done with the objective of providing policy direction to the sector agencies within the petroleum sub-sector and also monitors and evaluates policies and projects performed by its institutions. The program also establishes institutions and regimes essential to ensure the effective regulation and management of Ghana's petroleum resources in a safe and transparent manner with the aim of promoting the country's natural resources and also encourages participation of the private sector in the oil and gas industry. In terms of stakeholder consultation and engagements, the programme is delivered in collaboration with other state owned organisation such as Tema Oil Refinery (TOR), National Petroleum Authority (NPA) and the Bulk Oil Storage and Transportation Company (BOST). The Petroleum Commission (PC), Ghana Cylinder Manufacturing Company (GCMC), Ghana National Gas Company (GNGC), Ghana Oil Company Limited (GOIL) and Ghana National Petroleum Corporation (GNPC) are the other state owned institutions which also collaborate with GNPC in the discharge of its duty (Ministry of Energy Report, 2017. p. 32). As affirmed within the Petroleum Commission Act (2011), Act 821, various public agencies and governmental regulatory institutions are encouraged to co-operate with the Petroleum Commission in the discharge of their duties (Petroleum Commission, *Petroleum Commission Act,* 2011. p. 9).

The Petroleum Upstream Directorate of the Ministry of Energy also ensures the availability of technical expertise and provides guidance in all procedures in the development of standards, plans, regulations, policies, programs and projects for the Petroleum Upstream sub-sector of the Ministry of Energy. The Directorate additionally reviews the broad policies for the petroleum upstream sub-sector of the Ministry and also ensures the management oil and gas revenues for transparency and further ensures equity. Additionally, the Petroleum Upstream

Directorate of the Ministry of Energy encourages the country's investments along the oil and gas industry value chain, and also generates new strategic options, an incentive for a National competitive advantage for the country's oil and gas resources (Ministry of Energy, 2017).

To sum up, the Health, Safety, Environment and Security Directorate of the Ministry of Energy was also established to ensure compliance to environmental standards, principles and regulations on Health and Safety in the production, exploration and development of oil and gas in oil and gas fields (Ministry of Energy, 2017). Particularly, in achieving the goal of environmental protection, MESTI and EPA have adopted a policy and legal framework for the oil and gas industry (T. Norheim, personal communication, March 21, 2022).

Moving on, as affirmed in the Scanteam Report (2019) on the *Oil for Development Program in Ghana,* the political architecture of the country typically determines the direction in which the country goes. The authors advocate for a change in the "rules of the game" which can largely be achieved through the agenda and visions of the government in power. This change according to the authors, is essential in order to build the capacities of societies and various institutions in the country. Mohan Primarily, in Ghana two major political parties, the New Patriotic Party (NPP) and the National Democratic Congress (NDC) take the centre stage in terms of ruling affairs of the nation. These major political parties need to re-align their agenda and mandate in managing the country's natural resources by mainstreaming their set of rules and goals for the nation to harmonize with each other.

Legitimacy, as a concept underscores, how power relations determine which stakeholders are considered relevant to contribute to policy formulation and the outcome of these policies on the allocation of resources nationwide. Input legitimacy is particularly crucial due to its role in determining the outcome of policy formulations (Output Legitimacy). Whereas input legitimacy deals with the legitimacy of the decision-making process typically in policy formulations, the output legitimacy lays emphasis on the legitimacy of 'results' or how effective the decisions made or taken play out as underscored by Vatn (2015). As discussed in section 4.6.1 above on the need for participation and stakeholder engagement, there is the need to involve key individuals in formulating policies to be effective in achieving the desired outcome.

4.7.2 Summary of findings on Ghana's emerging oil governing policies

Ghana as country aspires to improve the lives of its citizens through the use of oil resources. This is evidenced in the formulation of astute policies aimed at improving corporate social responsibilities and enhancing local participation to increase the employment of Ghanaians by both local and transnational oil companies to work in the oil industry. The Ghana National Petroleum Corporation Law (1983), the Petroleum Revenue Management Act, 2011 (Act 815), Petroleum (Local Content and Local Participation) Regulations, 2013 (LI2204), Income Tax Act (2015), the Petroleum Agreements and the Petroleum [Exploration and Production] Act (2016) have been the legal and policy formulations aimed at breaking the resource curse. These are steps taken in the right direction. Ghana however needs to ensure proper compliance with these regulations if the nation is to properly subdue the syndrome of a resource curse.

Additionally, with a greater degree of observed Green Governmentality, there is the need to build institutional capacities to ensure that the nation's policies are enforced to the latter. Rent seeking perpetuated by the political elites and top public officials has rendered the regulatory agencies redundant in performing their roles particularly when their actions are influenced by political actors in the country.

Additionally, the diverging views of political actors and the "winner takes all" approach undertaken by political parties in governing the nation have been major hurdles to cross in ensuring a more collective and holistic approach to solving oil governing issues in the country. In the view of Kopinski *et al.,* (2013), Ghana is far from exhibiting the "Nigerian Scenario" where oil rather becomes a problem for the nation instead of being a solution. According to the authors, this hope lies in the stability of Ghana's political system, the power of its civil society groups as well as its relatively diversified and robust economy. On the contrary, Adams *et al.,* (2019) affirm that the Extractive Industries Transparency Initiative (EITI) and the emerging petroleum management policies alone are not enough to break the syndrome of a resource curse. These oil policies, according to the authors, need to be complimented with enhanced capacity of national regulatory institutions including;

- Improved quality of institutions and effectiveness of the government.
- Good governance and the establishment of anti-corruption machineries
- Accountability and effective accounting principle and practices
- Efforts to ensure the sustainable management of natural resources

Owusu (2018) in her write-up, *"Can Ghana Avoid the Resource Curse?",* argues that Ghana needs to create incentives for civil society groups and organizations to properly demand for transparency, to empower regulatory institutions and to further strengthen the nation's democracy. These recommendations according to the author, are essential to breaking the resource curse syndrome in the country.

CHAPTER FIVE

5.0 Conclusions and Recommendations

This study on "Ghana's Oil Industries and Emerging Regulations" sought to highlight the different structures and processes in the governance of oil exploration in Ghana. The indicators of the resource curse as experienced in Ghana were also identified as part of the study objectives. The research study further sought to highlight the key relevant features of the governance discourses in Ghana and additionally expound on Ghana's planned policies to address the identified oil governance issues in the country.

In Ghana, the governance of oil resources has been the mandate of the Ghana National Petroleum Corporation (GNPC) and the Petroleum Commission (PC). Findings from the study indicate that there is collaboration also between the Ghana National Petroleum Corporation (GNPC) and the Petroleum Commission (PC) and other governmental agencies, including the Environmental Protection Agency (EPA), the Ministry of Finance, the Ministry of Environment, Science, Technology and Innovation (MESTI) and the Ghana National Gas Company (GNGC). There is also further collaboration with oil exploration companies as well as with non-governmental agencies and donor agencies such as the Norwegian Agency for Development Cooperation (NORAD).

In terms of a resource curse, the country is faced with the lack of transparency in distribution of oil revenues and the lack of transparency in the award of concession and drilling rights. The country has also experienced various underlying factors which have led to a reduction in oil revenues as well as the nation's GDP. These factors have been influenced by oil price fluctuations on the global market, a reduction in oil production due to technologies challenges and the intermittent oil disputes which needed to be resolved between Ghana and its neighbouring countries.

These overall occurrences have largely impeded efforts aimed at reaping maximum benefit from the nation's oil resources.

Given the political discourses in Ghana, the two major political parties (that is NPP and NDC) have determined the level of development and the policy directions in which the country should go. These scenarios in the country have evolved based on the manifesto promises, ethnic alliances and the founding ideology of these political parties, being either socialist (NDC) or capitalist or market-based (NPP) approaches. Corruption, rent seeking and elite capture by some top public officials and politicians in the country have been unavoidable given the divergent agenda of the major political parties as given above. The political parties have played significant roles impacting the governance of Ghana's oil. Ghana as a nation has in theory carved out policy instruments to help break the resource curse in the country. The public outcry over the years has increased with the implementation of these policies.

The key governance discourses in Ghana have included civic environmentalism to a large extent and some form of green governmentality. Civic environmentalism has been the dominant approach to protecting the environment according to the study with an all-inclusive collaboration to reducing the ecological footprint of oil production on the environment. As a form of green governmentality, a good number of regulations, punishable by law are enforced by regulatory agencies and have also been useful in protecting the environment from the negative impacts of oil exploration. According to findings from the study, oil companies work assiduously to avert negative externalities which emanate from oil exploratory activities both to the environment and to indigenous people. The GNPC as a regulatory institution has the authority to revoke licences of oil companies who fail to comply by these regulations. Thus, a continued support from the government of Ghana in the provision of essential logistics to the Corporation is essential if this enforcement by the GNPC is to be sustained. Commenting on the issue of a carbon curse as a resource curse factor, Ghana appears to be guilty, to an extent, in the release of fossil fuels and greenhouse gas emissions given the level of its industrial activities. As indicated in findings from the works of Ritchie *et al.*, (2020), both the consumption and production of carbon dioxide (CO_2) in the country have increased between 2015 and 2020. However, a point worth noting is that land use changes have contributed to more emissions compared to the energy sector based on observations from the World Resources Institute Climate Analysis Indicator Tool (WRICAIT). With the world being more connected, no country is an island in reality, and Ghana also has a role to play in contributing to making the planet earth a safe haven for humanity. This, the country has planned to undertake through a shift to renewable forms of energy as observed in its "Ghana Renewable Energy Master Plan" scheduled to be implemented between 2019 and 2030. This program, according to its implementation plan, has the sole mandate of developing and promoting renewable energy sources for use in the country and improve energy efficiency. However, the target and vision of the program for energy improvement set to be achieved by 2030, has placed much responsibilities of the shoulders of the Ghanaian government.

The government of Ghana has been dedicated to pursuing various forms of Corporate Social Responsibilities to improve the improve the lives of its citizens. This is mostly done with GNPC as the vehicle for the state through which this mandate is achieved. Given the political discourses in the country however, there are in some instances conflicts of interest between GNPC and the Ghanaian government in the discharge of their duties. Findings from the study in relation to Ghana's Corporate Social Responsibility affirms that the GNPC has room for considerable improvement in their policies. As part of efforts to protect the environment, the Environmental Protection Agency (EPA) together with the Ministry of Environment, Science, Technology and Innovation (MESTI) have put up facilities to reduce environmental impacts of oil production on the environment. The lack of transparency in the allocation of oil revenues meant for the protection of the environment as part of Corporate Social Responsibilities has however left much to be desired.

There has been a good number of planned, suggested and some implemented policies to address these challenges. The big question lies in how to translate theses formulations into practical and expected results and outcomes. Capacity building and the strengthening of institutions have been cited as being crucial to ensure the effective implementation of formulated policies, whilst streamlining agendas for the ruling governments. These have been essential in reducing conflicting interests and abating corrupt practices perpetrated in the public domains mostly by corrupt top governmental officials and the political elites for their selfish gains. These approaches have been identified as panaceas to effectively constrain the resource curse in Ghana. It is again advocated that institutions are provided with the logistics needed to effectively carry out their tasks without permitting corrupt practices to ensure compliance and attainment of desired goals. A point worth mentioning has been the need to also carve out relevant policies suitable for both onshore and offshore oil exploration given their different scopes and types of operation.

Labelled as "Africa's best", world leaders including former President of the United States of America, Barrack Obama, have tipped Ghana as doing fairly well in the management of its oil resources (Obeng-Odoom, 2015). This narrative is further echoed by researchers such as Heilbrunn, Hendrix and Noland who also observe optimistic records from Ghana in comparison with the processes of oil governance in other African countries (Heilbrunn, 2014; Hendrix and Noland, 2014). These accounts however, as expounded above are based on a comparison on the African continent. It brings to bear, the well-worn African line and proverb which asserts that; *"In the land of the blind, the one-eyed man is the King!"* Ghana, as a developing nation has significant prospects for utilizing its oil resources for the betterment of its citizens. There is therefore the need for the country to draw on lessons from its shortcomings and reflections based on examples from other industrialized countries which have utilized oil as the lubricant in their economic machineries.

Based on findings and results obtained, the study hereby recommends that;

i) Corporate Social Responsibilities should be continually monitored by GNPC to the desired goal for its establishment.
ii) Cooperation among the relevant key institutions should be enhanced for efficiency in the governance of Ghana's oil.
iii) Regulatory institutions should be built, provided with the needed logistics and technologies to be able to effectively explore and manage the nation's oil resources and implement formulated policies.
iv) Policies governing both offshore and onshore oil exploration should be properly delineated to address the challenges in both areas of operation within the environment.
v) The constitutional rule of law should bridge the gap between the two major political parties (that is, NPP and NDC), where the oil governing policies are supreme in all instances.

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LIST OF APPENDICES

Appendix 1: A Structured Interview Schedule for Tema Oil Refinery

A STRUCTURED INTERVIEW SCHEDULE FOR PRIMARY DATA COLLECTION.

Topic:

GHANA'S OIL INDUSTRIES AND EMERGING REGULATIONS;
- BREAKING THE RESOURCE CURSE

TEMA OIL REFINERY (TOR)

Survey Link: https://ee.kobotoolbox.org/x/eO8yNyPB

INTRODUCTION

This is a structured interview schedule that is designed to assist me in obtaining both qualitative and quantitative research data for my project work. The study seeks to examine the oil and emerging industries in Ghana and how macroeconomic policy instruments could help translate prospects of oil production into developmental gains for the country. I wish to state that the purpose of this research study is solely for an academic resolve and thus, responses given would be treated with the highest form of confidentiality; I hereby request for your sterling tend and candid responses to aid in my research work. Thank you very much for your cooperation!!!

SECTION I
Background information about Respondent.

Name of Organization/ Institution: ……………………………………………………..

Name of Respondent: ……………………………………………………….............

1) What position /designation do you hold with the Organization/ Institution?

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2) What role do you play in the Organization/ Institution?

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3) For how long (in years) have you been working in this Organization?
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SECTION A

- **Identify the different structures and processes of governance in Ghana concerning oil policies**

- The various institutions mandated to oversee (award of contracts) for the exploitation of oil resources in the country

1) Are the agencies mandated to oversee the award of oil concessions solely governmental institutions?
   a. [Yes]   b. [No]

i) Are there any tensions between the government and private sector in overseeing the award of oil concessions?

2) Which institutions are mandated to oversee the award of concessions to oil industries?
   a. ……………………………………………………………………………..
   b. ……………………………………………………………………………...
   c. ……………………………………………………………………………...
   d. ……………………………………………………………………………...
   e. ………………………………………………………………………………

3) What are the key roles of institutions mandated to oversee oil exploration in Ghana?
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4) What are the challenges encountered by these institutions in their line of duty?
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SECTION B

➢ **Identify the elements/indicators of the resource curse as experienced in Ghana**

 Emerging themes these policy instruments address

4) What has been the average revenue generated from oil exploration between the years 2010 and 2020?

5) Public Tables & Reviews

6)

5) What have been the major sectors of the economy oil proceeds have supported between the years 2010 and 2020?

➢ Health sector
➢ State Welfare through National Fund establishment (eg. Heritage Fund)
➢ Industrial Development/ Creation of factories
➢ Support for Educational Sector
➢ Development of Social Infrastructure (eg. Roads, electricity, hospitals, etc.)
➢ Support for Agricultural Sector
➢ Others

SECTION C

 Identify the key relevant features of the governance approach in Ghana

 Best operation standards outlined by the governing institutions to reduce the impact of the oil exploratory activities on the environment

6) Are there policy instruments which focus on reducing the impact of oil exploration on the environment?

a [Yes] b. [No]

7) If yes, how do these policies seek to achieve this goal of environmental protection?

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8) What are the best operation standards outlined to guide the operations of oil industries in the country?
    a. [Yes]   b. [No]
9) Are indigenous people and civil societies engaged in efforts to reduce negative externalities of oil production on the environment? a. [Yes] b. [No]
10) What are the modes of empowerment offered to indigenous people and civil societies to improve their level of participation in protecting the environment?

Tick multiple answers as applicable

a. [Training & retraining on measures to reduce negative externalities]
b. [Providing incentives to encourage active participation in environmental protection
c. [Enhancing dialogue and bridging the communication gap between the indigenous people, civil societies and the oil exploration industries]
d. [None of the above]
e. [Others]

11) If others, please specify

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12) In your own opinion, how do you think the indigenous people and civil societies can be actively engaged with the oil industries in protecting the environment?

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SECTION D

 . **Identify Ghana's planned policies to address the governance issues.**

13) What are some of the planned policy instruments formulated/ being formulated to govern oil resource exploration in Ghana?

i) …………………………………………………………………………………………….
ii) ……………..………………………………………………………………………….
iii) ………..…………………………………………………………………………….
iv) ………..……………..………………………………………………………………
v) ……...………………………………………………………………………………..
vi) ………..……………………………………………………………………………
vii) …………………..……………………………………………………………….
viii) ………………………………………………………………………………….

14) Do the established policy instruments serve as an anti-corruption machinery to address the issue of corruption?

a. [Yes] b. [No]

15) Are there established institutions to ensure effective implementation of these policies? a. [Yes] b. [No]

16) If yes, please specify

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18) What are the failures/ challenges encountered by these institutions in enforcing policy formulations?

b. [Lack of effective cooperation among institutions]
c. [Conflict of interest from governmental and other top public officials]
d. [Lack of logistics for monitoring to ensure proper compliance]
e. [Absence of clearly spelt-out policy frameworks].
f. [Others].

19) If others, please specify

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20) In your own opinion, how can the challenges impeding effective policy implementations be addressed?

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21) Generally, what are your views on the key issues regarding this topic on oil and emerging industries in Ghana?

22) Are there any other issues?

Appendix 2: A Structured Interview Schedule for NORAD as a Donor Agency

A STRUCTURED INTERVIEW SCHEDULE FOR PRIMARY DATA COLLECTION.

Topic:

GHANA'S OIL INDUSTRIES AND EMERGING REGULATIONS;
- BREAKING THE RESOURCE CURSE

NORAD

Survey Link: https://ee.kobotoolbox.org/x/T4atsi4O

INTRODUCTION

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e. ……………………………………………………………………………….

3) What are the key roles of institutions mandated to oversee oil exploration in Ghana?
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4) What are the challenges encountered by these institutions in their line of duty?

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- **The level of cooperation among the institutions mandated to govern the exploitation of oil**

5) Do these institutions collaborate in undertaking their roles?
a. [Yes] b. [No]
6) If yes, how do the roles of these institutions overlap with one another?
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7) If no, what are the hindrances to ensuring an effective cooperation among these institutions?

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- **Major stakeholders consulted and involved in the formulation of policy instruments to govern the oil production**

8) Which arm of government establishes these institutions to regulate the exploitation of oil resources?
a. [Executive] b. [Legislature] c. [Judiciary] d. [Others]

9) If others, please specify

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10) Does the Legislature (Law-making body) take into account advice from expertise within the oil fields in formulating policy instruments to govern oil production? a. [Yes] b. [No]

11) If yes, who are these key stakeholders (expertise) consulted?

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12) If no, why are consultations not made?

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SECTION B

 Identify the elements/indicators of the resource curse as experienced in Ghana

 Emerging themes these policy instruments address

12) What are the major challenges the formulation of these policy instruments seek to address?

Tick multiple answers as applicable

a. [Issues of corruption]

b. [Equity in distribution of oil proceeds]
c. [Environmental protection]
d. [Transparency in allocation of revenues].
e. [Others]

13) If others, please specify

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14) Are there policy instruments which particularly look into ensuring equity in distribution?

a. [Yes] b. [No]

15) If yes, what are these policy instruments which look into ensuring equity in distribution?

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16) What has been the average revenue generated from oil exploration between the years 2010 and 2020?

13) Public Tables & Reviews

17) What have been the major sectors of the economy oil proceeds have supported between the years 2010 and 2020?

- Health sector
- State Welfare through National Fund establishment (eg. Heritage Fund)
- Industrial Development/ Creation of factories
- Support for Educational Sector
- Development of Social Infrastructure (eg. Roads, electricity, hospitals, etc.)
- Support for Agricultural Sector
- Others

SECTION C

- **Identify the key relevant features of the governance approach in Ghana**

- Best operation standards outlined by the governing institutions to reduce the impact of the oil exploratory activities on the environment

18) Are there policy instruments which focus on reducing the impact of oil exploration on the environment?
a. [Yes] b. [No]

19) If yes, how do these policies seek to achieve this goal of environmental protection?

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20) What are the best operation standards outlined to guide the operations of oil industries in the country?
    a. [Yes] b. [No]
21) Are indigenous people and civil societies engaged in efforts to reduce negative externalities of oil production on the environment? a. [Yes] b. [No]
22) What are the modes of empowerment offered to indigenous people and civil societies to improve their level of participation in protecting the environment?

Tick multiple answers as applicable

a. [Training & retraining on measures to reduce negative externalities]
b. [Providing incentives to encourage active participation in environmental protection
c. [Enhancing dialogue and bridging the communication gap between the indigenous people, civil societies and the oil exploration industries]
d. [None of the above]
e. [Others]

23) If others, please specify

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24) In your own opinion, how do you think the indigenous people and civil societies can be actively engaged with the oil industries in protecting the environment?
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SECTION D

 . **Identify Ghana's planned policies to address the governance issues.**

25) What are some of the planned policy instruments formulated/ being formulated to govern oil resource exploration in Ghana?

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iii) ………..……………………………………………………………………………….
iv) ……………………….…………………………………………………………………
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vi) ………..……………………………………………………………………………….
vii) ………………………..………………………………………………………………….
viii) ……………………………………………………………………………………….

26) Do the established policy instruments serve as an anti-corruption machinery to address the issue of corruption?

a. [Yes] b. [No]

27) Are there established institutions to ensure effective implementation of these policies?

a. [Yes] b. [No]

28) If yes, please specify

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29) What are the failures/ challenges encountered by these institutions in enforcing policy formulations?

f. [Lack of effective cooperation among institutions]

g. [Conflict of interest from governmental and other top public officials]
h. [Lack of logistics for monitoring to ensure proper compliance]
i. [Absence of clearly spelt-out policy frameworks].
j. [Others].

30) If others, please specify

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31) In your own opinion, how can the challenges impeding effective policy implementations be addressed?

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32)Generally, what are your views on the key issues regarding this topic on oil and emerging industries in Ghana?

33) Are there any other issues?

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