# Discovery of oil in ghana economics essay



Since the discovery of oil in deep-water offshore the coast of Ghana in 2007, the nation has had amplified expectations on possible accelerated economic growth and development. This "black gold" if managed well has the propensity to transform a structurally week economy into a self-sustain economy or can lead to social, economic and political instability as evidenced in some resource rich countries where their economies are characterized by corruption, poverty, and conflict. As Ghana becomes a member of league of oil producing countries, it is imperative that the country considers available successful options for effective allocation of its oil windfalls. This paper examines policy instruments that the Ghanaian governments can adopt to promote rapid improvement in development indicators in order to avoid the resource curse.

"Now, with oil as a shot in the arm, we're going to fly, We're going to really zoom, accelerate, and if everything works, which I pray will happen positively, you come back in five years, and you'll see that Ghana truly is the African tiger, in economic terms for development."[1]This statement attributed to a former president of Ghana in 2007 upon discovery of oil in commercial quantities justifies the optimistic expectations from the government and people of Ghana on the acceleration of economic growth and development from revenues to be obtained from exploration and development of oil fields. However, countries endowed with abundance of natural resources often perform poorly in achieving their targeted economic development than those with fewer resources resulting in what is popularly known as the "paradox of plenty" or "natural resource curse".[2]For most of these richly endowed countries, the dream of using revenues from oil and

gas to propel economic development is shuttered due to poor governance, oil price volatility, overdependence of oil revenue and the enclave nature of the oil industry.

Ghana, a resource rich country and already producing gold, diamond, bauxite, magnesium and aluminium has not been able to achieve economic stability and low poverty rate with revenues from these mineral resources. Based on current proven reserves, Ghana's production of oil from the Jubilee field is expected to reach it peak from 2013-2015 at a production capacity of 120, 000 barrels per day, lasting for 20 years and a potential revenue generation of USD 1. 8 billion per annum at its peak production. [3]Availability of both short and long term economic measures and macroeconomic policies are needed to avoid the resource curse. This paper seeks to examine how the governments of Ghana can effectively manage this scarce resource (oil) in the nation's guest to achieving a middle income status economy by 2020. For a proper understanding of oil exploration and exploitation, chapter two will consider the history of oil discovery in Ghana. A comparative approach method will be adopted in chapter three to analyse two diverging case scenarios of how one country (Norway) has been able to effectively manage it resources to advance economic development and the other country's (Nigeria) failure to achieve such success. Chapter four will elaborate on how key mechanisms such as diversification of the economy, strengthening of contractual and legal framework, transparency and accountability and resource management can be used as a tool in achieving sustainable economic growth. The conclusion will be chapter five.

# 2. Ghana Overview: History of Oil Discovery

Exploration of hydrocarbons in Ghana started in 1896 from the onshore Tano exploration in the Western Region (GPE, 2004). This initial exploration by the West Africa Oil and Fuel Company (WAOFCO) and later by the Société Française de Petrole in 1909 was hitched by the discovery of seepages of oil onshore by early explorers in surrounding communities onshore Tano (GNPC, 2009). The Saltpond field, which is the first major oil field in Ghana was discovered and developed by Signal Amoco in 1970 and began producing oil in 1975. A total of about 3. 47 million barrels of oil was produced and 14 billion cubic feet of gas was flared between 1978 and 1985.[4]Three major discoveries – Cape Three Points, Saltpond and North and South Tano were made from drilling of 31 wells by the end of 1980.

With the nation's vision of reducing crude oil importation and the provision of sustainable and reliable supply of petroleum products, Ghana Petroleum Corporation (GNPC) was established in 1983 with a mandate to continue major and sustainable exploration activities through the usage of needed technology and personnel, accelerated petroleum exploration and preventing adverse effects on the environment from petroleum exploration.

[5]Figure 1 shows Ghana's Jubilee Oil Field.

Figure 1: Ghana's Jubilee field straddles two licenses: Deep-water Tano and West Cape

Three Points

Map of Ghana highlighting offshore projects

Source: Tullow Oil Ghana, 2012

In June 2007, GNPC together with its partners in the Jubilee field, Tullow Oil and Kosmos Energy announced the discovery of oil offshore Ghana. Tullow Oil expressed that the oil discovered offshore Ghana is one of the biggest oil finds in Africa in recent times.[6]Production of oil from the Jubilee field commenced in December 2010, and is estimated to contain 1. 5 billion barrels of oil. Production in 2012 is estimated to be between an average of 70, 000 and 90, 000 barrels per day (bpd).[7]It is important to observe that since 2007, more offshore discoveries of oil and gas has been made with the recent discovery filed by Hess and GNPC for the Pecan-1 exploration well located in at deep-water Tano/Cape Three Points license offshore Ghana.[8]

# 3. Comparative Analysis

In recent years, due to the extreme variations in the standard of living of resource-rich countries, resource management has become a key element in exploration and development of natural resources. While countries such as Norway ranks very top in effective management of oil revenue, others such as Yemen, Angola, Nigeria and Chad have performed poorly in achieving economic development. Plagued in poverty, most of these countries have become rich with poor people often struggling to design appropriate resource management strategies for resource utilization.[9]Oil price volatility and the "Dutch Disease" are the two commonly known adverse effects to development path of resource endowed countries. The "Dutch Disease" which occurred in the Netherlands in 1970s refers to a sharp increase in the value of exported resource leading to appreciation of the local real exchange rate. This usually increases import as a result of increase in expenditure due https://assignbuster.com/discovery-of-oil-in-ghana-economics-essay/

to what is termed as "petro-dollar" and makes exportation of local commodities unattractive and difficult, hence the "spending effect". The shift in human resources and logistics from other sectors to the resource sector raises cost of production of other sectors creating "resource pull".

[10]A comparative analysis of Norway and Nigeria discussed is intended to offer Ghana with two practically extreme modules for guidance in avoiding the resource curse.

# 3. 1 Norway

Norway has earned a reputable position in resource management in oil and gas development. This has been labelled by many as the classical Scandinavian mechanism to tackling obstacles for long-term economic growth and development in the oil and gas industry. Norway discovered its first commercial oil in 1971 from the North Sea and considered its windfall from oil revenues as a temporal tool to insulate global economic shocks instead of stimulating present consumption. From the "Norwegian Model", the government carefully and effectively disaggregated administration of petroleum development into policy formulation, commercial and regulatory arms. The separated arms included the national oil company (Statoil) which was mandated to undertake commercial oil and gas exploration and exploitation, Norwegian Petroleum Directorate (NPD) as a regulatory body responsible for control, monitoring and provision of technical support and Ministry of Petroleum and Energy directing government policies.[11]

To sustain revenue management and wealth, total and non-oil economy separation was introduced in economic forecasting in 1973 and was strengthened by the establishment of Government Petroleum Fund, renamed https://assignbuster.com/discovery-of-oil-in-ghana-economics-essay/

as Government Pension Fund in 2006. New fiscal policy guidelines were adopted by Parliament in 2001.[12]All these policy instruments instituted and strictly adhered to has resulted in prudent and transparent management of oil revenue.

(Insert SWF institute)

The success chalked by Norway in the management and administration of revenue from oil and gas production has attracted immersed international attention and has led to the formation of the Oil for Development (OfD) by the Norwegian government. The scheme launched in 2005 aims at supporting developing economies upon request, to manage, control and achieve economic development through efficient utilization of oil revenues. [13]With core members such as Nigeria, Angola, Uganda, Vietnam and limited cooperation countries such as Ghana, Tanzania and South Africa, Oil for Development now cooperates with more than over 23 countries depending on area of expertise needed.

# 3. 2 Nigeria

Nigeria joined the ranks of oil producers in 1958 after it had discovered oil in commercial quantities in 1956 by Shell-BP as the sole concessionaire at the time and producing about 5, 100 bpd at Oloibiri in the Niger Delta. By the late sixties and early seventies, production level had surged to over 2 million barrels of crude oil a day.[14]Between 1971 and 1973, Nigeria's oil revenue almost quintupled due to windfalls from increasing oil prices. Nigeria as a major oil producer joined the Organisation of Petroleum Exporting Countries (OPEC) in 1971 and established the Nigerian National Petroleum Company

(NNPC) in 1977 as a national oil company to manage and controlled both the upstream and downstream energy sectors.[15]Though sectorial and trade patterns begun showing traits of oil income by early1970s, agriculture maintain its dominance accounting for about 40% of non-oil GDP and employing about 70% of the national work force. However, this achievement was short-lived as the economy suffered severe "oil syndrome" propelling a sharp decline in agriculture sector, collapse of non-oil export and appreciating of the country's real exchange rate.[16]These were the result of high public capital spending (an increase from 3. 6% of nominal GDP in 1970 to 29. 5% by 1976) leading to high GDP deficit, inflation and wage increments by the government, based on the Public Service Review Commission (the average wage for civil servants doubled with increases of up to 130%).[17]

http://www.eia.

gov/countries/analysisbriefs/Nigeria/images/oil\_production\_consumption.png

Nigeria has failed on the path to developing clear cut oil revenue management systems to manage its windfalls. This is traced to failures on attempted management commissions such as the Niger Development Board of 1960 and the Oil Minerals Producing Areas Development Commission (OMPADEC) of 1992 due to political instabilities. The most recent commission created to salvage the country is the Niger Delta Development Commission (NDDC) in 2000.[18]Nigeria's crude oil production capacity is currently at 1. 673 million bbl/d, with recent offshore oil developments and the restart of some shut-in onshore production increasing it to an average of 2. 17 million bbl/d for the month of July 2011. High levels of poverty and corruption has https://assignbuster.com/discovery-of-oil-in-ghana-economics-essay/

led to kidnappings, militants takeovers of oil facilities in the Niger Delta and pipeline vandalism since 2005.[19]Though currently producing below capacity, Nigeria's oil production is expected to increase based on the estimated 37. 2 billion barrels of proven oil reserves and a more comprehensive revenue management system envisaged from the much debated Petroleum Industry Bill.[20]

## 4. Implementing Strategic Management Framework

The energy sector strategy and development plan 2010 drafted by the Ministry of Energy in Ghana advocate that in order to achieve the country's goal of sustaining oil and gas exploration, development and judicious management of accrued revenue, the ministry's plan is to "manage oil and gas revenues transparently and ensure equity for the benefit of the present and future generation of Ghanaians. This will be achieved through institutional reforms and transparent regulation for the management the oil revenue through legislative guidelines for the creation of a Future Generation Fund and stabilization fund".[21]The challenge is how Ghana positions itself in managing and formulating policies to achieve these set goals. Subsequent chapters will be dedicated to deliberating various successful policies and management styles governing allocation of oil revenues, how much to save (Current versus Future), building economic shocks for oil price volatility and guarding against the "Dutch Disease"

# 4. 1 Strengthening Contractual, Regulatory and Legal Framework

In modern business transactions, the buyer is always guided by the traditional concept of caveat emptor "let the buyer beware" of the natural

risk in purchasing products in the market. To this end, and more crucial in the oil and gas industry is the opposite, "let the owner beware" of how resource revenue management if not meticulously planned could create inequalities.[22]Countries such as Botswana and Norway have been able to manage their resource sectors to sustain economic growth by adapting efficient and effective contractual and legal framework. Ghana in an attempt to follow such examples has passed two crucial bills, the Petroleum Revenue Management Bill (PRMB) and the Petroleum Exploration and Production Bill 2011 (PEPB). These bills governing exploration, development and management of oil revenues are intended to strengthen and provide a comprehensive approach to the Ghana National Petroleum Corporation Act (PNDC Law 64), the Petroleum (Exploration and Production) Act (PNDC Law 84), the Petroleum Income Tax Act, 1987 (PNDC Law 188), the Internal Revenue Act 2000 (Act 592) and the Environmental Protection Act 1994 upon commercial discovery of oil in 2007.

The Petroleum Revenue Management Act 2011 provides for "framework for the collection, allocation and management of petroleum revenue in a responsible, transparent, accountable and sustainable manner for the benefit of the citizens of Ghana in accordance with Article 36 of the Constitution and for related matters".[23]Thus, the bill provides instruments for key issues such as setting up of petroleum funds, allocation and disbursement of the funds, management and investments of the petroleum funds and encumbrances and auditing of the funds.[24]The Petroleum (Exploration and Production) Act, also seeks to provide "a robust framework for the sector for the exploration, development and production of petroleum" and "create an

enabling environment for increased private sector participation and investment in the petroleum sector and to strengthen the regulatory framework for healthy competition and quality assurance".[25]By adopting Production Sharing Agreement in negotiating and awarding of petroleum contracts to IOCs, Ghana seeks to promote local contents and sense of ownership in petroleum production. However, it is important to state that creating these regulatory and legal frameworks alone is not the end, for Ghana to be able to be successful in promoting economic growth using petroleum revenues; it must strictly adhere to these frameworks as done in Norway and Botswana.

# 4. 2 Transparency, Accountability and Democratic Governance

Strong institutions and administrative capacity for transparency and accountability in the oil industry is an important tool in achieving the purpose of improving human lives. Independent and accountable institutions are needed to manage proceeds from natural resource revenues. As done by some countries such as Chile and Malaysia, even with relatively low institutional capacities have overturned the negative cycle and maintained social stability and accelerated economic growth.[26]Ghana as member of the New Partnership for Africa's Development (NEPAD) which promote good corporate governance, effective regulatory framework for economic activities, corporate accountability, sound, transparent and predictable government policies should adhere to these standards in order to promote quality standard of living and reduce poverty rate.

Another mechanism used in tracking the performance of extractive natural resources countries in admonishing transparency, accountability and good governance is participating as a member of the Extractive Industries Transparency Initiative (EITI). As a global standard of ensuring transparency, EITI provides all industry players (IOCs, civil society groups and international organizations) and country members with principles of upholding transparency and accountability of payment from natural resources. [27]Ghana together with other countries such as Norway, Nigeria and Tanzania as EITI compliant countries have been meeting all requirements in the EITI standards and must continue to do so as a measure of promoting and strengthening transparency. The democratic dispensation in Ghana is considered by far to be one of the most reliable and stable governance in Africa. Continuing this path of democratic governance and strong civil societies such as the Centre for Policy Analysis (CEPA), IMANI, Centre for Education and Policy and the Institute of Economic Affairs (IEA) in Ghana, the country can tap experience from Chile and Botswana in avoiding the " resource curse". The position of transparency and accountability is confirmed in article 8. 1 of the Petroleum Revenue Management Act 2011. Its state that "for the purpose of transparency and accountability, the records of petroleum receipts in whatever form, shall simultaneously be published by the Minister in the Gazette and in at least two state owned daily newspapers, within thirty calendar days after the end of the applicable quarter".[28]

## 4. 3 Resource Management

A million question usually posed by many experts is whether Ghana should spend or save windfall revenues from the oil sector. Thus, should revenue management policy be structured towards repayment of Ghana's large foreign borrowing and eradicate capital scarcity and credit spreads, invest in foreign assets through sovereign wealth fund which has the capacity of building economic shock absorbers against volatile oil prices or to invest in domestic capital which has the tendency of promoting growth and structural transformation.

In the case of Norway, the government instituted the State Petroleum Fund (SPF) in 1990 to function as both savings and stabilization funds to manage macroeconomic growth and guard against oscillating oil prices. Through prudent economic managements, strong democratic institutions, transparency and conservative fiscal policies, the SPF accumulated substantial wealth which led to consistent budget surpluses and the surging popularity of the "Norwegian Model".[29]Though economic conditions and priorities between Ghana and Norway are different, Chile a developing economy has similar economic growth and development characteristics to that of Ghana. Like Norway, Chile in 1985 established the Copper Stabilization Fund for the management of its copper revenues and its effective management led to economic booms and poverty reduction between 1990 and 1997.

Ghana government's oil revenue from the Jubilee field has four components, a royalty of 5% of gross oil revenues, Ghana National Petroleum Corporation share of 13. 75% as oil field's commercial net profits, an "additional oil entitlement" of 10-25 % of petroleum revenue, net of royalties and the GNPC interest, is accrued if the project rate of return is between 18 and 33% and government levies on company income tax on all net profits of 35 %.[30]For

effective management of windfall revenues from oil production and drawing experience from Norway, Chile and Botswana, Ghana's Petroleum Revenue Management Act allocates government oil revenues between annual budget and sovereign wealth funds based on "benchmark revenue". The Petroleum Act established a Petroleum Holding Fund with Bank of Ghana to receive and disburse all public oil revenues. From the Petroleum Holding Fund, 50-70% is allocated to consolidate the annual budget with a minimum of 70% to be used for investment in eleven priority areas including agriculture, human resource, education and health, security, transport and the remaining 30% for consumption. The other 30-50% from the Petroleum Holding Fund goes into the Ghana Petroleum Funds which consist of the Ghana Stabilisation Fund and the Ghana Heritage Fund. The Ghana Stabilisation Fund, constituting a minimum of 70% of the Ghana Petroleum Fund, will be used " to cushion the impact on o sustain public expenditure capacity during periods of unanticipated petroleum shortfalls" and the remained 30% to be invested as the Ghana Heritage Fund " to provide an endowment to support the development for future generations when the petroleum reserves have been depleted".[31]These policies, when properly administered and supported with strong democratic institutions can eliminate Ghana from the oil curse.

# 4. 4 Conflict Management

As observed in the case of Nigeria, political instability and authority has been a key fundamental issue hindering effective management of oil revenue. This is to say that though the promise of piece of share of the "oil" cake keeps the nation together, its distribution has plunged the country into political,

social and economic instability resulting in high levels of poverty and corruption, militants takeovers of oil facilities and vandalism in the Niger Delta.[32]Similar cases are spread across the Middle East where poor management of oil revenue has led to polarization of the economy and economic laxity. Although Ghana's commercial oil discoveries have been made in deep water offshore Western Region, the fact still remains that region is most likely to suffer more in the case of oil spillage. Environmental safety trust funds and care must be taken to avoid social disruptions. From Ghana's own experience, towns such as Obuasi and Akwatia which are well known for the extraction of gold and bauxite have seen little development with respects to the national revenue generated from the area. As a result, there are important discussions on the need to establish Western Region Development Fund to cater for a more responsive regional development to avoid undesired sentiment of marginalisation and alienation.

# 4. 5 Diversification and sustainable Economic Policy

A key challenge of windfall revenues is how to avoid or minimize the possible negative effect that spending from oil revenues could have on the non-oil sectors of the economy. This negative effect usually leads to shrinking of non-oil sector by shifting production from exports while imports stay the same, shifting production from import substitute's goods and creating additional imports of goods and services. Unlike Nigeria which has seen a near "collapse" of export from the agricultural sector after discovery of oil, Indonesia has achieved tremendous improvement in agricultural production. [33]Other countries such as Angola, Iraq and Equatorial Guinea have also performed poorly in sustaining agricultural development and food security.

Agriculture, services and manufacturing sectors are relatively labourintensive, with agriculture alone employing about 65% of the work force in
most developing countries as compared to the extractive industry, Ghana as
a major exporter of cocoa, gold and a relatively growing manufacturing
sectors should continue to diversify its productions to build a robust
economy capable of sustaining oil price volatility.

### 5. CONCLUSION

Ghana, like other developing countries can effectively manage its oil revenue and use the windfalls as an engine for accelerated development through sustainable planning from upstream, midstream and downstream activities. Major challenges for the country would be how to develop the oil and gas industry with optimal local content and participation, how to provide security for the industry and the overall management of potential revenue from oil and gas production. From a lot diverging experiences, Ghana can only do better in areas many countries have failed in relation to the management of exploration and exploitation of crude oil. Given the fact that crude oil and gas as natural resources are exhaustive and temporary, the broad objective of the country should be to use revenues accrued from oil production in support of the non-oil productive sectors in order to achieve a diversified and stable economic growth. The set-up of the national petroleum regulatory authority responsible for the regulation of all petroleum activities and the creation of a future generation fund and stabilization fund to ensure transparency and equity of benefit for both present and future generations are good initiatives. To maximize potentials from the oil industry, these initiatives should be cushioned by building a supporting human resource

capacity, technological transfer and strong contractual, regulatory, legal frameworks.