Global Leadership Training Programme in Africa 2014

RESEARCH REPORT

The Relationship between Democracy and Resource Curse ~ How could PRMA have been established in Ghana? ~

Yuho Takagi¹

English Summary

I dealt with Petroleum Revenue Management Act (PRMA) in Ghana for the case study, and analyzed its process to be established in detail. The object of this report is to clarify how PRMA could been established in Ghana.

Many countries in Sub-Saharan Africa (SSA) are the known as resource-rich countries, but at the same time have been introduced as cases of "Resource curse". We can even say that no SSA oil producing country has ever succeeded in avoiding resource curse. That is why I focused on the topic.

Among those countries, Ghana has not experienced any phenomena of resource curse so far, and it is said to be partly because of the legislation to avoid the curse, especially for *Petroleum Revenue Management Act* (PRMA) established in 2011. Therefore, I focused on why PRMA could be established soon after the discovery of oil in Ghana.

I picked Resource Curse Theory up as a previous study, and reviewed both of theoretical and case studies, which were lack of the point of view to focus on the process of institutions. Taking it into account, I focused on the process of establishing the legal institution in Ghana.

Term of the research was from 2007 until 2011, which means from the discovery of oil until establishment of PRMA. Specifically, I analyzed the statement and actions made by each actor (government, mass-media, civil society, private company, international society, etc) to see who had what kind of roles.

Through the study focusing on international actors, I can conclude that Ghana could establish PRMA thanks to democratic background and the good timing of discovery. We can divide the factors into two: a technological factor and a democratic factor (it became

¹ 2nd grade student, Global Governance Program, School of International and Public Policy, Hitotsubashi University, Tokyo, Japan. University of Ghana, Department of Geography and Resource Development

incentives for Ghana). The former was mainly the geographical condition, and the latter was the tendency of natural resource governance. Actions of Norway and Trinidad and Tobago were both pushed by this tendency, and development of Resource Curse Theory was also accelerated.

As a contrast, I pointed out that actors representing domestic democracy, such as Parliament, Civil society and ordinary citizens, had no function to push the government to develop and establish PRMA.

To support my hypothesis, I applied World Polity Theory, which says three factors concretely influence the action of nations; norm, script and cognitive model, to the explanation of why PRMA has been established in Ghana. And showed the opinion below: First, the norm was the trend of good governance in natural resource in 21st century represented by EITI. Secondly, the script for institutionalization was offered by Norway through OfD. Thirdly, the cognitive model of PRMA was undoubtedly The Heritage and Stabilization Fund Act of Trinidad and Tobago. Had it not been for this act, it would have taken Ghana some more decades to establish the same act.

Japanese Summary

本論文は、ガーナ共和国の石油歳入管理法(PRMA)を事例として取り上げ、その制定プロセスを詳細に分析することを通じて、誰がどのようにして法制度の構築に影響を与えたのかを明らかにするものである。

サブサハラアフリカの多くの国々は、豊富な天然資源を保有しているにも関わらず、貧困問題を抱えている。いわゆる資源の呪いによって発展が阻害されていることが一つの主要な原因である。そこで本論文は、サブサハラアフリカの資源問題に着目した。

その中でもガーナに焦点を当てた理由は、同地域における従来の産油国全てが資源の呪いを経験していると言われる中で、石油が発見された 2007 年以降、ガーナは石油による経済停滞もしくはガバナンスの悪化を経験していない唯一の例だからである。そこで、ガーナが資源管理に成功している要因の一つとされる石油歳入管理法に焦点を当てるとともに、「ガーナ政府が同法を迅速に制定することができた要因は何か」という問いを立てた。

本論文では、既存研究として資源の呪い研究を取り上げ、理論研究とガーナにおける事例研究の両方についてのレビューを行った。その結果、既存研究では、どのようにして石油管理制度が構築されたのかというプロセスを詳細に分析する視座が欠けていることから、本論文の焦点を石油歳入管理法が制定された「プロセス」に当てることによって、新たな視座を提供することを目指した。

石油歳入管理法についての考察をすすめるにあたり、本論文は石油開発が盛んになる 2000 年 代初めから石油生産開始(2010)までに焦点を当てた。つまり、石油が発見されてから石油歳 入管理法が制定されるまでの期間である。この時期の国内および海外の各アクターの行動を分析し、それぞれが与えた同法の制定への影響を明らかにした。

国際的要因として、ノルウェー、トリニダード・トバゴ、ナイジェリア、採掘産業透明性イニシアティブ (EITI) を取り上げ、これらアクターの動きの背景にはすべて、資源の呪い理論の発展を前提とした天然資源ガバナンス改善の時代的風潮があったことを発見した。ガーナの石油は技術的困難さゆえに 21 世紀になるまで掘り起こされることがなく、それゆえにこそ、こうした時代的風潮に合致するタイミングで発見された。そのことが、石油歳入管理法の迅速な制定を促す要因となったと言える。

次に国内的要因の分析を通して、国内民主主義を支える主要なアクターとしての国会、市民 社会、一般市民の行動はいずれも、石油歳入管理法の制定に影響を与えることはなかったと指 摘した。

以上のような議論を通して、従来の通説として考えられていた「民主主義であれば資源の呪いにはかからない」という主張は、直接的な因果関係としては証明されないことを指摘した。むしろ本論文は、資源の呪い理論の発展とそれに伴う近隣国ナイジェリアの失敗事例、及び 21 世紀の資源ガバナンス改善の風潮といった要因が、ガーナの法制度構築を直接的に後押ししたと主張する。そしてこの仮説を包括する理論的枠組みとして、規範(Norm)、台本(Script)、認識モデル(Cognitive model)の三つが国家の行動に影響を与えるとする世界政体理論(World Polity Theory)を取り上げ、各アクターがこの枠組みのうちどの役割を果たしたのかを説明した。

1. Introduction

1.1 Background and Research Question

Many countries in Sub-Saharan Africa (SSA) have been introduced as cases of "Resource curse", such as Angola and Nigeria with oil, Sierra Leone with diamond. Among 58 countries scored by Resource Governance Index², the average lank of six SSA oil-producing countries³ is 44th, which is very low. So, we can say that no SSA oil producing country has ever succeeded in avoiding resource curse.

Ghana has been an exporter of oil in commercial quantity since the end of 2010, and IMF says that Ghana is expected to make a large profit up to \$20 billion by 2030. Therefore, Ghana will be ranked as one of the major 50 countries of oil export in the near future. However, Ghana has not experienced any phenomena of resource curse so far. In economic aspect, the economic growth rate of Ghana has been over 5% for more than ten years continuously, and in political aspect, the score of Corruption Perception Index⁴ have been consistently improving since 2006. Needless to say, Ghana has not experienced any armed conflict since its independence in 1958.

In terms of management of oil, Ghana is admired for the legislation to avoid the curse, especially for *Petroleum Revenue Management Act* (PRMA) established in 2011. This act has two important characteristics. First, PRMA regulates the transparency of oil revenue. According to this act, all the oil companies and government must publish the report of income and outgo regularly. And all the money from the oil must be managed by Petroleum Holding Fund (PHF). Secondly, PRMA regulates the way of investment in Article 21, which prioritizes the long-term investment in the area relating to agriculture, industry, infrastructure, and so on. According to those regulations, this act is expected to function to avoid the curse. Therefore, I focused on why PRMA could be established soon after the discovery of oil in Ghana.

1.2 Objective

The first objective of this research is academic one, that is, to clarify what contributes to the development of resource curse theory. This research is one of the case studies focusing on the relationship between resource curse and legal institution. In this area, we can see some cases of macro-level researches such as cross-country analysis, but cannot see many cases that have analyzed at micro-level. This research will focus on the contextual process how legal institution was

² Natural Resource Governance Institute (NRGI), which has been the natural resource section of

Revenue Watch Institute (RWI), annually publishes the RGI scores of resource rich countries. The score consists of 4 factors: institution, practice of report, security and quality control and environmental consideration.

³ Six SSA countries are Gabon (32th), Nigeria (40th), Angola (40th), Mozambique (46th), South Sudan (50th) and Equatorial Guinea (56th). (NRGI, 2013)

⁴ Corruption Perception Index (CPI) shows the degree of corruption in each country. CPI is annually published by the international NGO (Transparency International).

established, and can contribute development of the theory by providing a new case of micro-level research about institution.

Second objective of this research is to clarify what contributes to policy making in Ghana and other potential oil-producing countries in Sub-Saharan Africa. Since Ghana has managed oil only for 5 years so far, we cannot say that Ghana could avoid resource curse perfectly, but there is no doubt that establishment of PRMA is one of the success model that Ghana could achieve in managing oil effectively. By clarifying the process of policy making in establishing this act, Ghana can decide whether the government should continue the present attitude or change it. In addition, there are many potential oil-producing countries in West Africa, such as Guinea and Cote d'Ivoire. If Ghana can succeed in management of oil for the first time in Sub-Saharan Africa, it can be the leading case for other countries. This research is sure to contribute to it.

1.3 Hypothesis

This research consists of two hypotheses. First, democracy had little influence on establishment of institutions such as PRMA. Democracy seems to be the most important factor for a country to improve the resource governance, as Paul Collier says. However, after the research focusing on domestic democratic factors (parliament, civil society and election), those factors didn't promote PRMA to be improved. The reasons are below. First, the parliament of Ghana has been controlled by NDC, the ruling party. Because of that, it didn't function as a competitive power against the government. Secondly, most of activities acted by civil societies were the criticisms after some policies practiced by the government, rather than proposals in advance. Thirdly, in terms of election, issue for voting was not focused on the oil policy of government for some reasons.

Then, what pushed the government to establish PRMA in only a few years after the discovery of oil? My second hypothesis gives the answer, that is, the timing. In the end of 20th century and the beginning of 21st century, many events on the resource governance happened in the world. Development of Resource curse theory, the boom for establishing natural resource fund, the new norm on the natural resource governance, and initiatives according to the norm, bilaterally and multilaterally, and many other actions were also taken by various countries and organizations. Thanks to those actions, Ghana could take advantage as a late starter of oil export. In other words, international environment for natural resource governance let Ghana establish democratic and effective institutions from the aspect of a norm and technology.

2. Study Area

2.1 Resource Curse Theory

The history of Resource Curse Theory is not so long. The idea that natural resource might be more an economic curse than a blessing emerged in 1980's. Then, Richard Auty (1993) used the term "resource curse thesis" in his report for the first time in the world. Originally, this theory was developed by various economists such as Sachs and Warner (1995). They proved the negative

correlation between GDP growth rate and resource dependence of resource-rich countries from 1970's to 1990's. Researchers like Karl and Gary (2003) contributed to development of the theory by case studies in Africa.

In addition to economical approach, many researchers have made their researches in political aspects since early 2000's. Ross (2001) argued that dependence on oil hinder democracy of one country⁵. On the other hand, Harb (2003) and Haber (2007) denied the positive correlation between natural resource and regime type including democracy. Nowadays, researchers are trying to clarify this issue from more detailed aspect. For example, Dunning (2008) classified resource-rich countries by the equality in private sector.

The other issue on political aspect is the relationship between natural resource and civil war. Collier and Hoeffler (2004) focused on the motivation and the opportunity to rebel, and proved the correlation between export of primary products and civil war. Fearon (2004), Jensen (2004), and many other researchers have also made various researches on this issue. They are classified into three types: ②eneral analysis of the relationship between natural resource and civil war, ②the assumption that natural resource indirectly influence civil war by weakening governance of a nation, ③the assumption focusing on details such as characteristics of each natural resource and geographical conditions, based on greed and grievance theory.

As Auty pointed out, not all the resource-rich countries get cursed, even developing countries like Botswana and Chile. Then, we have to clarify in which condition there will be curse in a country. Humphreys (2007) summarized 5 economic factors and 5 political factors as important. The 5 economic factors are unequal expertise by a few private sectors ⁶, Dutch disease ⁷, unstable development because of resource volatility ⁸, living off the capital by politicians and insufficient investments in human capital such as education ⁹. And the 5 political factors are spoliation by higher levels of corruption, unaccountable states (low transparency), threats to democracy (the decline of the importance of tax and labor force), grievances in producing regions and military challenges to government. Recently, some researchers are trying to find the effective way to prevent those factors. For example, Afful-Koomson and Asubonteng (2013) argue that collaborative governance by all actors such as government, private companies, international organizations, bilateral cooperation and civil society is vital to avoiding the resource curse.

⁵ Similar cases are Lam and Wantchekon(2002), Tsui(2005) and Jensen(2004), and so on.

⁶ E.g. Asamoah(2012)

⁷ E.g, Sachs and Warner(1995)

⁸ E.g. Hampleys, et al(2007)

⁹ E.g. Gylfason(2001), Birdsall(2001) and Phillipot(2010)

2.2 Case study in Ghana

The Number of Researches on oil in Ghana is not so large, because the domain is quite new. After discovery of oil in 2007, some researchers argued that the government should meet the expectations of citizens. Anaman (2007) and Asante (2009) pointed out the importance of system where citizens can directly take the profit of oil industry. There are many researchers focusing on each issue. Manteau (2009) and Gyima-Boadi (2013) considered the impact of oil discovery on democracy, and argued that government of Ghana is not managing the oil democratically so far. Owusu (2014) argued that the government has to compensate the producing region ¹⁰. Asafu-Adjaye (2009) analyzed the possibility of Dutch disease in Ghana, and Asamoah (2012) pointed out the environmental risk of oil industry and its possible solution.

2.3 Review of Precious Studies

Research on Resource Curse Theory is still developing. Majority of researchers regard democracy only as a dependent variable, but we also have to consider the effect of democracy to avoid the curse. Therefore, I regarded democracy as a independent variable and occurrence of the curse as a dependent variable. Similar attitude can be seen in the research on Institution. For example, Mehlum (2006) pointed out that countries with producer friendly institutions tend not to be in curse. King (2009) argued that institutions to make the linkage between civil society and political leaders are important factors to avoid the curse.

In terms of research on Ghana, there are few comprehensive researches on the resource curse. Amungsen (2012) concluded that Ghana can avoid the curse because of the good institutions. He reviewed and summarized the international indexes such as Natural Resource Governance Index and Democracy Index. However, his research can be criticized in terms of why such institutions could be established. As Jones (2008) pointed out, it is important to clarify how the institutions are made and how the institutions relate with each other to evolve. In other words, we have to consider the process of each institution. Taking those things into account, I focused on the process of establishing the legal institution in Ghana, based on the previous researches on institution.

3. Methodology

As I mentioned in the last section, I focused on the legal institutions related to oil policy in Ghana. Especially, I picked up PRMA established in 2011, because of the effectiveness to avoid the curse by preventing economic and political factors of the curse; Dutch disease, lack of transparency, lack of long-term investment, and so on. I conducted the archival research on the process how PRMA was established. Term of the research was from 2007 until 2011, which means from the discovery of oil

 $^{^{\}rm 10}$ Oil producing region is Western region, which capital is Takoradi.

until establishment of PRMA. Specifically, I analyzed the statement and actions made by each actor (government, mass-media, civil society, private company) to see who had what kind of roles.

Especially, I focused on governments of Norway, Trinidad and Tobago and Nigeria as a representative of bilateral cooperation, because they were invited to international forum for oil organized by Ghana. Additionally, as a representative of multilateral cooperation, I picked up EITI¹¹. Then, to see the domestic actors, I conducted the three kinds of researches. First, I collected and analyzed the discussion record of the parliament from 2010 to 2011. Especially through the comparison of the ruling party (NDC) and the opposition party (NPP), I clarified the attitude of NDC toward institutionalization, and examined the contribution of the parliament to PRMA. Secondly, I picked up major national NGOs and summarized their activities in that period. Thirdly, I collected the secondary materials about 2008 election that was held just after the discovery of oil. I had two objectives: to see the manifesto of each party about oil policy, and to see the attitude of citizens toward them.

However, I had a lot of difficulties to find such kind of primary and secondary materials about oil policy, because the sector was quite new and immature. So, I did interview research on various people concerned to supplement the lack of information. The informants were from governmental organizations, national and international NGOs, professors, journalists and consultants. The detailed information is in Appendix.

4. Research Findings

4.1 Domestic Democracy

In this section, I show the result of research focusing on domestic actors, especially parliament, civil society and ordinary citizens. They are expected to function to develop and protect democracy in Ghana. If we believe in the generally accepted idea "democracy can prevent resource curse", those actors must have contributed to establishing PRMA in some sense.

Parliament

Ghana has the single chamber system, and typical two-party system by NDC and NPP. In 2004 election, NPP had 128 seats, NPP had 94 seats and other parties had only 8 seats (in total 230 seats). But in 2008 election, NDC won 116 seats, NPP got 107 seats and others got 7 seats. Though the ruling party changed in 2008 election, they were still competitive with each other in terms of the number of the seats. Then, I analyzed the discussion over PRMA between NDC and NPP in 2011. The membership was the same as 2008.

-

¹¹ Extractive Industries Transparency Initiative (EITI) is a multi-stakeholder initiative that was established in 2002, by the proposal of the former Prime Minister Brier in UK.

First of all, the section about Public Interest and Accountability Committee (PIAC) threw the meeting into confusion. The design of PIAC was so unique because the organization by this act was expected to watch the government itself whether it is obeying the law. In the discussion, they discussed how strong they should give the right to PIAC. Article 52-c¹² says that the objective of PIAC is to provide independent assessments on the management and use of revenues *to assist parliament and the executive*. It means, PIAC is only a supportive organization for the parliament. NPP insisted that they should add "civil society and general" to this article. NDC strongly opposed and said that "civil society" was too vague and fluid to be given the legal responsibility by the act. In addition, this act included the sentence "Committee ensure that the petroleum revenue is used for the benefit of current and future generations", but NDC argued that PIAC couldn't have an ability to assure the benefit of citizens, and this sentence was deleted.

Secondly, Article 22¹³ was also complicated. This article prohibited any special allocation that influences Ghana Stabilization Fund (GSF) and Ghana Heritage Fund (GHF). The representative of oil producing region (NPP member), Catharine Afeku suggested that they should add the earmarking for producing regions. However, NDC opposed to this suggestion because the article 24(3)¹⁴ regulated the possibility of compensation for the community.

The Table 1 is the summary of the major discussion between NDC and NPP. At a glance, we can see that NDC ideas have been much more accepted. It means that the parliament could not change the draft of PRMA meaningfully. Awal (2014) points out that the parliament is not functioning as a competitive power against the government. In addition, there was no discussion in the parliament about the wide and vague authority given to the Minister of Finance and about the foundation for PIAC (Adam, 2014). Therefore, we can conclude that the parliament did not contribute to establishing, hastening or developing PRMA.

¹² Article 52-c: (The objects of Accountability Committee are:) to provide independent assessments on the management and use of revenues to assist Parliament and the executive in the oversight and performance of related functions respectively.

¹³ Article 22: Outside of the allocation of the Petroleum Holding Fund, extra budgetary activities or statutory earmarking of petroleum revenue for any consideration is prohibited.

¹⁴ Article 24(3): Where petroleum operations adversely affect a community, appropriate compensation shall be paid for the benefit of the community in accordance with the relevant laws.

Table 1: The summary of major discussion between NDC and NPP

Article	Content	Issue	NDC's opinion	NPP's opinion	Result
					(adopted)
8(3)	Benchmark price of Petroleum	Market price or Reference price	Reference Price	Not opposed to NDC	NDC
11(1)	Definition of GPF	Notation Fund or Funds	Fund (depend on draft maker)	Agreed	NDC
13	Withdrawal from GPF	Necessity of approval by Parliament	Not needed	Needed	NDC
15(1)	Report by Minister	Frequency	Annually	Quarterly	NDC
15(3)	Publishing Media of the report	How to choose the newspaper	State owned	National dailies	NDC
22(2)	Earmark for producing region	Accept exceptional earmark or not	Not accept	Accept	NDC
23(4)	Transfers from GSF	Establishment of Contingency fund	Not needed	Needed	NPP
49(3)	Confidentialit y	Submit to parliament	Not Prioritized	Prioritized	NPP
52(c)	Objectives of PIAC	Scope of objectives	Limited to support of parliament	Add civil society	NDC
52(d)	Objectives of PIAC	Scope of activities	Only support of parliament	Assure the profit of citizens	NDC
53(1)a	Function of PIAC	Scope of Consultation	Revenue (Limited)	Resource(Compr ehensive)	NDC
54	PIAC membership	Number of members	11	13(add the representatives of parties)	NDC

Civil Society

The discovery of Jubilee field excited the media and public opinion. People in the depression because of weak currency expected that the economy would change dramatically thanks to oil. This enthusiasm pushed many national NGOs into activities. In fact, the government invited some major NGOs to the national forum for oil in 2008¹⁵. However, the discussion in the forum was led by the Mining and Energy Committee founded by the government, and NGOs had few opportunities to express their opinions (Gyampo, 2010). Since then, each NGO has acted focusing on its interest. Table 2 shows the major NGOs and their activities.

Table2: The major NGOs and their activities

Name	Activities	
IEA-Ghana	Establishment: 1989	
(Institute of Economic Affairs-Ghana)	Activities: Research focusing on the public policy such as budget process	
	Petroleum: P-TRAC Index ¹⁶	
ACEP	Establishment: 2010	
(Africa Centre for Energy Policy)	Activities: Think tank on Energy policy	
	Petroleum: Review on PRMA	
CDD-Ghana	Establishment: 1998	
(Center for Democratic Development-Ghana)	Activities: Rule of law, public administration	
Gilalia)	Petroleum: Review on new petroleum law	
STAR-Ghana	Establishment: 2004 (supported by EU, US-AID)	
(Strengthening Transparency,	Activities: management of the projects	
Accountability and Responsiveness-Ghana)	Petroleum: support for minority action	
GII	Establishment: 1999	
(Ghana Integrity Initiative)	Activities: Branch of Transparency International in Ghana	

⁻

¹⁵ E.g, CDD-Ghana, IEA-Ghana, CEPA etc.

¹⁶ P-TRAC Index (Petroleum Transparency and Accountability Index) is the index about the transparency of oil and gas industry in Ghana that IEA-Ghana annually publishes. It consists of 4 pillars; Revenue transparency, Budget transparency, Contract transparency and Function of Heritage and Stabilization fund. Ghana scored 59.7% in 2011, and 68.9% in 2012.

	Petroleum: Not specially	
GACC	Establishment: 2000	
(Ghana Anti-Corruption Coalition)	Activities: Anti-corruption Action by Multi-stakeholder	
	Petroleum: Not specially	

I visited all the NGOs above, and made some interviews about their activities. As a result, there are few materials related to oil sector between 2007 and 2011, the preparation term for oil export. There are probably two reasons for this. First, they had no custom to record small dialogues at that time. Even in the governmental organizations, there were no official reports about the national and international forums. Secondly, they were not ready to deal with the oil sector in Ghana because of the lack of experience. In conclusion, we can say that national NGOs didn't contribute to establishing or develop PRMA.

Ordinary Citizens

In general, ordinary citizens participate in the politics through voting in the democratic society. In Ghana, there was the presidential election in 2008, just after the discovery of oil in Jubilee field. The then ruling party NPP was suffering from the decline in approval rate because of economic weakness. NPP emphasized that discovery of oil would change the situation, and made out a draft of oil and gas policy and of national oil regulative authority, incorporating them into its manifesto. On the other hand, NDC didn't prepare an alternative to it. However, NDC won this election as I mentioned in the last section.

Unfortunately, I could not find any materials analyzing this election in terms of strategy and motivation of voters. So, I had an interview about its reason with Mr Awal, the researcher of CDD-Ghana. According to the interview, there are two main reasons. First, the most important issue for the citizens in this election was to improve the situation of daily life. That is, they are not so interested in the oil policy that takes long time to get the outcome, but so interested in the short-term policy such as financial and monetary policy. Secondly, Most of ordinary citizens in Ghana were partisans. That is, they supported NDC or NPP without rational reasons. Many persons decided the party depending on the decisions of their family and relatives, though there were no strong tendencies because of a region.

In conclusion, actors representing domestic democracy had no function to push the government to develop and establish PRMA. Of course democracy didn't become any negative factor, and the attitude to develop good governance by the government of Ghana must be based on the democratic background. However, the explanation "good institution was established because of democracy" has

a logical gap, and we need to prepare some intermediate variable to explain this causal relation between two.

4.2 International Stream

After the discovery of oil in 2007, the government of Ghana actively invited the foreign governments and international organizations for advice. Especially, Norway, Trinidad and Tobago and Nigeria played important roles for Ghana to develop the oil policy (Gyampo, 2010). At the same time, we have to pay attention to EITI (Extractive Industries Transparency Initiative) as a representative of multi-lateral framework. I describe what kind of contribution each actor made.

Norway

Norway is undoubtedly one of the most successful countries in terms of the management of oil. Since starting oil export in 1960's, Norway has produced 210 million barrels per day continuously, but experienced no curse in any aspect. The person who asked Norway for the advice was not the government itself. It was Kofi Annan, former Secretary-General of the UN and a Ghanaian. When he asked, Norway had operated Oil for Development Program (OfD)¹⁷ since 2005. In 2008, they finally signed the Memorandum of Understanding, and agreed for Norway to support each ministry and related organization such as GNPC in Ghana.

They prioritized making the master plan of oil policy at first, and Ghana took very comprehensive support to establish the basis of oil industry. However, there was no record or statement focusing on PRMA, so we can see that they thought of legal institution as one part of the whole issues.

Trinidad and Tobago

Resource dependence of Trinidad and Tobago is so high, because 40% of GDP and 80% of export is from oil and gas sector. Though independence of Trinidad and Tobago was won later than Ghana (in 1962), she scored 74 points in Resource Governance Index in 2013¹⁸. One of the reasons for this good score is her institutional effort. In the latter part of 1990's, the quantity of oil production was declining. To deal with this problem, the government established Interim Revenue Stabilization Fund in 2000 to save the oil money for the future. And then, the government developed this fund and established The Heritage and Stabilization Fund Act in 2007.

PRMA of Ghana was modeled on this act. The structure of both acts is almost the same, though the percentage of profit to national budget is a bit different (70% in Ghana, 60% in Trinidad and

10

¹⁷ The government of Norway started Oil for Development Program in 2005, aiming to reduce the poverty and to realize sustainable development of resource-rich countries. In 2013, Norway assisted 32 developing countries for this program, and spent about 33 million US dollars.

¹⁸ This ranks in 10th place in the world.

Tobago). If we focus on PRMA only, we can say that Trinidad and Tobago directly contributed to the establishment of PRMA even more than Norway, thanks to good timing.

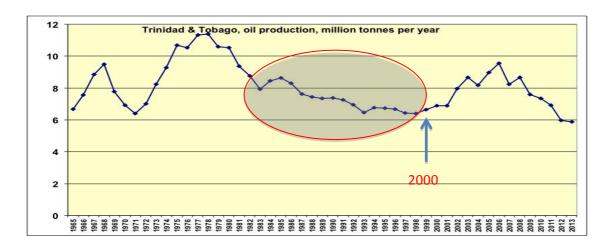


Figure 1: Transition of oil production in Trinidad and Tobago

(Source : BP Statistical Review, 2013)

Nigeria

The last country is Nigeria. The beginning of oil production in Nigeria was very early, tracing back to 1938¹⁹. Many laws were established and the sector developed very rapidly. However, southern eastern part which includes the oil-producing region declaring its independence from Nigeria in 1967, and this declaration became a trigger of Biafran War. Because of this civil war, the oil industry in Nigeria became so confused, and even destruction of the environment occurred. This is the typical case of resource curse introduced by many researchers.

Ghana and Nigeria had strong relationship because both of them are major members of ECOWAS. So, when commercial quantity of oil was discovered in Ghana, she was reminded the experience of Nigeria.

Since the discovery of oil in 2007, the media such as journals and TV in Ghana introduced the tragic history of the countries like Nigeria and Congo, and questioned about "How can Ghana avoid the cures?" day and night. (Kuroda, 2013)

¹⁹ Nigeria was colonized by Britain in 1914, experienced the period of a dominion from 1954, and became independent in 1960.

A Nigerian anti-corruption watchdog commission approximates that over 45% of the country's oil is wasted or stolen often by sophisticated criminal gangs who tap into the pipeline using hacksaws to cut through pipes to 'claim their share' of their nation's resource... (中略) ...This must not be allowed to happen to Ghana.

(Ghana web, June 30th 2008)

These are examples of the article saying that Ghana must not be like Nigeria.

EITI (Extractive Industries Transparency Initiative)

The direct trigger of establishment of EITI was the statement of Prime Minister Blair (UK) in 2002²⁰, but the plan was already made in the end of 20th century. In 1999, Global Witness²¹ published 'A Crude Awakening' and introduced that the lack of transparency in Angola has hindered development of the country. This report encouraged many international NGOs such as Open Society Institute and Oxfam, Transparency International to establish Revenue Watch Program and new NGO Publish What You Pay. Establishment of EITI was one of the actions.

Table 3: Summary of major events until discovery of oil in Ghana

Year	Event
1993	Auty introduced "Resource Curse" in his report
1999	'A Crude Awakening' published by Global Witness
2000	Trinidad and Tobago established Interim Revenue Stabilization Fund
2002	EITI was started by the speech of Blair
2005	Norway started Oil for Development Program (OfD)
2007	Trinidad and Tobago established The Heritage and Stabilization Fund Act
2007	Discovery of Jubilee oil field in Ghana

²⁰ He argued the importance to cooperate each other to avoid the resource curse in the world, in WSSD (World Summit on Sustainable Development) held in Johannesburg.

²¹ It is the name of an International NGO.

5. Discussions

5.1 Application of World Polity Theory

World Polity Theory (World Culture Theory) has been developed mainly by John Mayer as an analytical frame for interpreting global relations, structures, and practices. According to John Boli and George M. Thomas, the world polity is constituted by distinct culture a set of fundamental principles and models, mainly ontological and cognitive in character, defining the nature and purposes of social actors and action. They say that three factors concretely influence the action of nations; norm, script and cognitive model.

I can apply this theory to establishment of PRMA in Ghana. First, the norm was the trend of good governance in natural resource in 21st century represented by EITI. Secondly, the script for institutionalization was offered by Norway through OfD. Thirdly, the cognitive model of PRMA was undoubtedly The Heritage and Stabilization Fund Act of Trinidad and Tobago. Had it not been for this act, it would have taken Ghana some more decades to establish the same act.

To discover an oil field in offshore of Ghana, the highly developed technology was needed. That's why it was not found until 21st century. And this fact was also important to explain why Ghana could establish PRMA very quickly, because 2007 was very good timing to prepare the institutions related to oil. As I summarized in the last section, all the actions was begun around 2000. If Ghana had found oil before then, it would have taken much time to institutionalize and would have had some troubles like other countries in SSA. In this sense, Ghana was so fortunate.

5.2 Limitation of This Research

This research has several limitations and problems to be solved. The first problem is the lack of objective information such as statistical data. The reasons are as follows: In Ghana, there was few record of discussion or policy making before the production of oil in 2010. Therefore, I could get some information only from interview research, which is partly subjective. One more reason is the lack of the accumulation of time and experience. It's because oil sector in Ghana is so new. Many researchers are now preparing and collecting data to publish new reports to evaluate the present policy.

Second problem is that I couldn't evaluate whether PRMA was designed well enough to prevent Ghana from getting cursed or not. To answer this question, we need a viewpoint of economics, which is missing in this research.

Third problem is that we need to see other countries to check if the same thing will happen in the similar situation to Ghana. Because of the development of natural resource governance, new oil-producing countries in the future are expected to avoid the curse. We have to be careful about this to make sure of my hypothesis.

6. Conclusion

Though there are many limitations in this research, I can conclude that Ghana could establish PRMA thanks to democratic background and the good timing of discovery. We can divide the factors into two: a technological factor and a democratic factor (it became incentives for Ghana). The former was mainly the geographical condition, and the latter was the tendency of natural resource governance. Actions of Norway and Trinidad and Tobago were both pushed by this tendency, and development of Resource Curse Theory was also accelerated. And then, these movements can be explained using World Polity Theory that assumed the world to be united by cultural norm.

I can infer that the following oil-producing countries in SSA will be able to avoid the curse thanks to many experiences and this tendency. But, to make sure of it, I have to clarify two things. First, I have to see whether PRMA can really contribute to avoiding the curse. To evaluate this, I need the viewpoint of economics. Secondly, I have to make another case study on a country which has similar condition and different result.

Development of Resource Curse Theory

Democratic factor

Development of Resource Curse Theory

Nigerian Experience of Failure

Explained by World Polity Theory

Theory

Figure 2: Summary of my hypothesis

7. Reflection on the GLTP in Africa

I could receive the benefit from GLTP in many ways. Especially, I can point out three things that I owe to GLTP.

First, the program enabled me to brush up the research design. Before visiting, I had no practical image of the society of Ghana. So, I could not make the good research question. But once I visited the country, I recognized the large gap between my previous image and reality. For example,

people in Ghana were much less interested in oil policy in their own country than I had expected before visiting. As a result, I arranged the research design again and again.

Second benefit was the generosity of GLTP to let us make trials and errors without any restriction. If I had been bound by small rules, I could have not changed my research plan flexibly in the field. At the same time, it was a very good opportunity to learn how to make an appointment for interview. I sometimes made mistakes about the timing, and learned a correct way of preparation for the research.

Thirdly, I could see and visit many persons and organizations thanks to the name of UNU. Governmental organizations required me to show the identification strictly. If I had had no status, I could have not visited ministries and the parliament to get many materials.

Taking all into account, I could do the interview research without any big problems because of GLTP system, and also could learn how to make it, thanks to big support and generosity of GLTP.

Acknowledgement

First of all, I am deeply grateful to all the organizers of GLTP, UNU-IAS. Thanks to this program, I could practice the field research, and took benefit from it. Especially, I appreciate the feedback offered by Professor Masahumi Nagao, the Visiting professor of UNU-IAS, and by Dr Osamu Saito, the Academic program officer.

I also would like to express my gratitude to Professor Geoge Owusu, the Head of Department of Geography and Resource Development, University of Ghana. Thanks to his kind acceptance, advice and the introduction letter, I could see many important persons and organizations related to my research. In addition, I would like to show my great appreciation to Dr.Elias T.Ayuk, the Director of the UNU-INRA. He kindly introduced relative researchers and materials to me.

In terms of stay, I would like to offer my special thanks to Ms. Adisa Lansah Yakubu. She kindly accepted me and supported everything about my daily life. Thanks to her support, I could spend all the days without any big trouble. I am also indebted to Ms. Yasuko Kusakari and Ms. Madoka Kurata for much advice about my stay in Ghana.

In addition, I would like to express deep appreciation to all informants who kindly took my interview. Thanks to all of their big cooperation, I could finish my research.

References

1. Secondary Materials

Adam, Mohammed (2014) "Three years of Petroleum Revenue Management in Ghana: Transparency and Accountability" *Public Interest Report vol.2*

Adam, Mohammed, et al (2013) "How a Good Law may not Stop Oil Money from Going down the Drain: The Two sides of Ghana", Report (July 2013)

Adam, Mohammed (2013) "Between a Blessing and a Curse" Policy Paper Series vol.1

ACEP (2014) Advisory Report on Ghana's New Petroleum (Exploration and Production) Bill 2014

Afful-Koomson, Timothy and Asubonteng, Kwabena Owusu, *Collaborative Governance in Extractive Industries in Africa*, UNU-INRA

Amundsen, Inge (2012) "Can Ghana Avoid the Resource Curse?" *International Conference on Democratic Governance Challenges in Africa and Asia, Panel 8,9*th, 2:15-3:30

Asamoah, Joe (2012) The Global Oil & Gas Bonanza: Africa's Share, Joasa Publications

Asamoah, Joe (2012) Making the Oil & Gas Find in Ghana a Blessing, Joasa Publications

Asare, Bossman.E (2012) "Unitarism and presidentialism: Political institutions and corruption in public management in Ghana" *Journal of Public administration and policy research*, vol.4(2), pp.32-41

Auty,R.M.(1994) "Industrial policy reform in six large newly industrializing countries: The resource curse thesis." *World Development* 22(1), pp.11-26

Auty,R.M.(1998): "Resource Abundance and Economic Development: Improving the Performance of Resource-Rich Countries", *UNU-WIDER Research for Action 44, pp.1-62*

Bank of Ghana (2014) Petroleum Holding Fund & Ghana Petroleum Funds Semi Annual Report: January 1-June 3

Birdsall, Nancy, et al. (2000) "Natural Resources, Human Capital, and Growth", *Carnegie Endowment for International Peace, Working Paper*, pp.1-20

Breisinger, Clemens, et al (2009) "Managing future oil revenues in Ghana—An Assessment of Alternative Allocation Options", Kiel Working Papers, no.1518

CDD-Ghana (2011) Ghana's Nascent Oil and Gas Sector: A Political Economy of Change Analysis, CDD-Ghana and the Political Economy of Change Group

Chitor, Binditi (2012) *Ghana's Transitional Oil and Gas Industry (Legal, Corporate & Environmental Aspects)*, All rights reserved by the Author

Collier, Paul (2011) *The Plundered Planet: Why We Must—and How We Can—Manage Nature for Global Prosperity*, Oxford University Press

Collier, Paul and Hoeffler, Anke (2004) "Greed and grievance in civil war", *Oxford Economic Papers* 56, pp.563-595, Oxford University Press

Dunning, Thad (2008) Natural Resource Wealth and Political Regimes, Cambridge University Press

Darby, Sefton (2010) *Natural resource governance: New frontiers in transparency and accountability*, Open Society Foundation

EITI (2014) Progress Report 2014: Making Transparency Matter

Fearon, D.James and Laitin, D.David (2003) "Ethnicity, Insurgency, And Civil War", *American Political Science Review, Vol. 97, pp.75-90*

Gary, Ian and Karl, Terry Lynn (2001) *Bottom of the Barrel: Africa's Oil Boom and the Poor*, Catholic Relief Services

Gylfason, Thorvaldur (2001) "Natural resources, education, and economic development", *European Economic Review 45*, pp.847-859

Goldberg, Ellis, et al. (2008) "Lessons from Strange Cases: Democracy, Development, and the Resource Curse in the U.S.States", *Comparative Political Studies, Vol.41 No.4/5, pp.477-514*

Gyampo, Ransford (2010) "Saving Ghana from Its Oil: A Critical Assessment of Preparations So Far Made" *International Multi-Disciplinary Journal*, vol4 pp.1-16 (3a)

Gyampo, Ransford (2011) "First One Hundred Days of Oil Production in Ghana", *International Multi-Disciplinary Journal*, vol5 (2) pp.16-28

Gyampo, Ransford (2014) "Making Ghana's Oil money Count: Lessons from Gold Mining", *International Journal of Development and Economic Sustainability*, vol2, no1, pp.25-38

Gyimah—Boadi, Emanuel, et al (2013), "Oil & Mining Countries: Transparency Low, Impunity High"

Gyimah—Boadi, Emanuel (2013) "Strengthening Democratic Governance in Ghana: Proposals for Intervention and Reform" *STAR-Ghana Work Paper* pp.1-33

Haber, Steohen, et al. (2003) "When the Law Does Not Matter: The Rise and Decline of the Mexican Oil Industry", *The Journal of Economic History vol.63, Number.1* pp.1-32

Haber, Stephen and Menaldo, Victor (2007) "Do Natural Resources Fuel Authoritarianism?: A Reappraisal of the Resource Curse", *Working Paper no.351, pp1-36*

Humphreys, Macartan (2005) "Natural Resource, Conflict, and Conflict Resolution" *Journal of Conflict Resolution*, vol.49, no.4, pp.508-538

Humphreys, Macartan, et al.(2007) "What is the Problem with Natural Resource Wealth?" *Escaping the Resource Curse,* Chapter.1 pp.2-20

IEA-Ghana (2012) IEA Petroleum Transparency and Accountability Index: The P-TRAC Index 2011 Report: Tracking Transparency and Accountability in Ghana's Oil and Gas Industry

IEA-Ghana (2013) IEA Petroleum Transparency and Accountability Index: The P-TRAC Index 2012 Report: Tracking Transparency and Accountability in Ghana's Oil and Gas Industry

IMF (2013) "Ghana: 2013 Article IVconsultation", IMF Country Report no.13/187

IMF (2013) "Regional Economic Outlook: Sub-Saharan Africa-Building Momentum in a Multi-Speed World", World Economic and Financial Surveys

IMF (2014) "Regional Economic Outlook: Sub-Saharan Africa-Fostering Durable and Inclusive Growth", World Economic and Financial Surveys

IMF (2014) "World Economic Outlook: Recovery Strengthens, Remains Uneven" *World Economic and Financial Surveys*

ISSER (2014) The State of the Ghanaian Economy in 2013

ISSER (2013) The State of the Ghanaian Economy in 2012

Jensen, Nathan and Wantchekon, Leonard (2004) "Resourrce wealth and Political Regime in Africa", *Comparative Political Studies*, vol37, no.7, pp.816-841

Boli, John, et al (2010) "World Society, World-Polity Theory, and International Relations" *The International Studies Encyclopedia*

Meyer, John, et al (1997) "World Society and the Nation-State", *The American Journal of Sociology*, vol.103, no.1, pp.144-181

Jones, Sam(2008) "Sub-Saharan Africa and the "Resource Curse": Limitations of the Conventional Wisdom", *Danish Institute For International Studies, Working Paper* no.2008/14

King, Richard (2009) "An Institutional Analysis of the 'Resource Curse' in Africa: Lessons for Ghana." Consilience, The Journal of Sustainable Development; 2

Kwawukume, Solomon (2010) *Ghana's Oil and Gas Discoveries: Towards Full Maximum Benefits*, All rights reserved by the Author

Leite, Carlos and Weidmann, Jens (1999) "Does Mother Nature Corrupt? Resources, Corruption, and Economic Growth", *IMF Working Paper* vol99, no.85, pp.1-32

Mehlum, Halvor et, al (2006) "Institutions and the Resource Curse", *The Economic Journal*, 116, pp.1-20

Moss, Todd and Young, Lauren (2009) "Saving Ghana from Its Oil: The Case for Direct Cash Distribution" *Center for Global Development, Working Paper* 186

Natural Resource Governance Institute (2014) Resource Governance Index 2013: A Measure of Transparency and Accountability in the Oil, Gas and Mining Sector

Oben-Odoom, Franklin (2010) "Avoiding the Oil Curse in Ghana: Is Transparency Sufficient?" *African Journal of International Affairs*, vol.13, no.1&2, pp.89-119

Osei, Bonsu Dickson (2011) "A Concice History of Oil Exploration in Ghana" *uPublish* URL:http://ghanaoilwatch.org/index.php/ghana-oil-and-gas-news/1007-a-concise-history-of-oil-and-gas-exploration-in-ghana

Owusu, George and Bloch, Robin (2012) "Linkages in Ghana's Gold Mining Industry: Challenging the enclave thesis" *Resource Policy* 37, pp.434-442

Philippot, Louis-Marie (2010) "Are Natural Resources a Curse for Human Capital Accumulation?" Cerdi Working Paper, Electronic Resource

Reporters Without Borders: Press Freedom Report 2013

Ross, Michael (1999) "The Political Economy of the Resource Curse", *World Politics*, vol.51, Issue.2, pp.297-322

Ross, Michael (2001) "Does Oil Hinder Democracy?" World Politics, vol.53, Issue.03, pp.325-361

Ross, Michael (2004) "How Do Natural Resource Influence Civil War? Evidence from Thirteen Cases", *International Organization*, vol.58, no.1, pp.35-67

Sachs, Jeffrey D and Warner, Andrew M (1995) "Natural Resource Abundance and Economic Growth", NBER Working Paper no.5398, pp.1-50

Smith, Benjamin (2002) "Oil Wealth and Regime Survival in the Developing World, 1960-1999", *American Journal of Political Science*, vol .48, no.2, pp.232-246

Snyder, Richard (2004) "Does Lootable Wealth Breed Disorder?: A Political Economy of Extraction Framework" *The Hellen Kellogg Institute for International Studies, Working paper #312*

Stiglitz, Joseph E (2005) "Making Natural Resources into a Blessing rather than a Curse" *Covering Oil*, Revenue Watch Open Society Institute

Transparency International (2006) Corruption Perceptions Index 2006

Transparency International (2009) Corruption Perceptions Index 2009

Transparency International (2014) Corruption Perceptions Index 2014

Tsui, Kevin K (2011) "More Oil, Less Democracy: Evidence from Worldwide Crude Oil Discoveries"

Vieta, Kolo.T (2013) Know Your MPs in the 6th Parliament (2013-2017), Lagbearers Publishers

Wantchekon, Leonard (1999) "Why Do Resource Dependent Countries Authoritarian Governments?"

World Bank (2011) "The Challenges and Opportunities of Ghana's Offshore Oil Discovery" (Mar, 2011), *Africa Trade Policy Notes #14*

2. Governmental Publications

Frankliin Ashiadey (Ministry of Finance)(2014) EITI Implementation in Ghana: A White Paper (unpublished material)

Government of Ghana (1983) *The Ghana National Petroleum Corporation Law,* The Government Printer

Government of Ghana (1984) Petroleum Exploration and Production Law, The Government Printer

Government of Ghana (1987) Petroleum Income Tax Law (1987), The Government Printer

Government of Ghana (2011) Petroleum Revenue Management Act (2011), The Government Printer

Government of Ghana (2011) Petroleum Commission Act (2011, Act 821), The Government Printer

Government of Ghana (2013) Petroleum (Local Content and Local Participation) Regulation, The Government Printer

Ministry of Finance, Ghana (2014) *2013 Reconciliation Report on the Petroleum Holding Fund submitted to Parliament*

Ministry of Finance, Ghana (2014) Annual Report on the Petroleum Funds 2013

Ministry of Finance, Ghana (2013) Annual Report on the Petroleum Funds 2012

Ministry of Finance, Ghana (2012) Annual Report on the Petroleum Funds 2011

Ministry of Finance, Ghana (2014) Economic and Financial Policies for the Medium Term

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.6 pp.200-267

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.7 pp.314-357

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.9 pp.453-496

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.10 pp.518-570

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.11 pp.575-639

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.13 pp.716-863

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.14 pp.940-996

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.15 pp.1002-1094

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.16 pp.1138-1181

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.17 pp.1188-1309

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.22 pp.1410-1535

Parliament of Ghana (2011) Parliamentary Debates: Official Report Fourth Series, vol.72, no.26 pp.1847-1883

Public Interest Accountability Committee (2014) *Report on Management of Petroleum Revenues for Year 2013 Annual Report,* (date accessed: 2014/10/31)

Public Interest Accountability Committee (2013) *Report on Management of Petroleum Revenues for Year 2012 Annual Report* (date accessed: 2014/10/19)

Public Interest Accountability Committee (2014) "Position of the PIAC on Placement of cap by the Minister of Finance on the Ghana Stabilization Fund", *Press Release on 7th August, 2014*

Republic of Trinidad and Tobago (2007) An Act to provide for the establishment of management of the Heritage and Stabilization Fund and for matters related thereto, *Act no.6 of 2007*

3. Internet

BP (2013) BP Statistical Reviewof World Energy (Date Accessed, 2015/1/4) URL: bp.com/statisticalreview

CDD-Ghana Website (Date Accessed, 2015/1/15) URL: http://www.cddgh.org

Democracy Index 2013 (Date Accessed, 2015/1/14)

URL:http://www.eiu.com/public/topical_report.aspx?campaignid=Democracy0814

Democracy Index 2012 (Date Accessed, 2015/1/14)

URL:http://www.eiu.com/public/topical_report.aspx?campaignid=DemocracyIndex12

EITI Website (Date Accessed, 2014/1/8) URL: https://eiti.org

GACC website (Date Accessed, 2014/1/15) URL: http://www.gaccgh.org

Ghana Web "Oil Output to hit 180,000bpd", 2013/10/25 (Date Accessed: 2014/11/15) URL: http://www.ghanaweb.com/GhanaHomePage/business/artikel.php?ID=289878

GII website (Date Accessed, 2014/1/15) URL: http://www.tighana.org

IEA-Ghana Website (Date Accessed, 2015/1/15) URL: http://ieagh.org

Norway: the Official site in Ghana (Date Accessed, 2015/1/12) URL: http://ghana.norway.info

STAR-Ghana (2014) "Combating Corruption in the Oil and Gas Sector in Ghana, Accra, 2014" News&Media, website of STAR-Ghana (Date Accessed, 2014/11/28) http://www.starghana.org/grantee_news/combating-corruption-in-the-oil-and-gas-sector-in-ghana-accra-2014-acep/

STAR-Ghana Website (Date Accessed, 2015/1/14) URL: http://www.starghana.org

4. Article

Daily Guide 2011/1/8 "George Owusu: The Oil Magician"

Daily Guide 2014/10/30 "Oil Workers Strike At Sea"

Daily Guide 2014/11/11 "GHc90m Oil Cash Missing"

Appendix

List of Interview research

Date (2014)	Occupation	Name
Nov.10 th	Dep. of Political Science/Univ. of Ghana	Prof. Ransford Gyampo
Nov.18 th	Africa Centre for Energy Policy, Senior Energy Policy Manager	Dr.Mohanmed, Nasir Alfa
Nov.26 th	Joy FM journalist	Mr.Benjamin Piorgah Tetteh
Dec. 4 th	Oil & gas, energy, environment and climate change consultant	Dr.Joe Asamoah
Dec.8 th	Ministry of Finance, Real Sector Division, Head of Energy, Oil and Gas Unit	Dr.Joseph Kwadwo Asenso
Dec.10 th	Natural Resource Governance Institute, Program Officer	Mr.Adams Fusheini
Dec.10 th	CDD-Ghana, Research Officer	Mr.Mohammed Awal