Oil and gas development in Sub-Saharan Africa – A contextual analysis

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CONTENTS

1 INTRODUCTION

The objective of this analysis is to make a basis for developing a project for the Oilwatch Africa network for the coming years. The analysis is mainly based on a literature study and supplemented by the insights of the authors.

The analysis gives an overview of how oil and gas production has developed and is developing in African countries south of Sahara. The analysis is also presenting the various negative impacts on livelihoods of this industry. Challenges and opportunities for civil society actors in their struggle to save people's livelihoods are presented in the last chapter.

2 REGIONAL OVERVIEW

With a population of over 900 million[i], and awash with natural resources, Africa has been a source of much raw materials needed by outside the continent. The resources that have drawn so much interest to the continent include minerals such as gold, diamond, copper and very importantly crude oil and gas. Commercial extraction of crude oil has a fairly shorter history on the continent than solid minerals. Whether it is crude oil or gold, their exploitation holds out much hope to local people across the continent but has consistently left them with broken promises, environmental degradation and severe social impacts.

According to the 2008 British Petroleum Statistical Energy Survey, Africa had proven oil reserves of 117 billion barrels at the end of 2007 or 9.5 % of the world's reserves and in 2007 the region produced an average of 10.3 million barrels of crude oil per day, 12.5% of the world total and a change of 3.1 % compared to 2006[ii]. Five countries dominate Africa's upstream oil production. Together they account for 85% of the continent's oil production and these are Nigeria, Libya, Algeria, Egypt and Angola. Other oil producing countries are Gabon, Congo, Cameroon, Tunisia, Equatorial Guinea, the Democratic Republic of the Congo, and Ivory Coast. New exploration is taking place in a number of other countries that aim to increase their output or become first time producers. Included in this list are Chad, Sudan, Namibia, Ghana, Ethiopia, South Africa and Madagascar, while Mozambique and Tanzania are potential gas producers.[iii]

3 WHY AFRICAN OIL IS SUCH A KEY ATTRACTION

The discovery of oil in Africa would seem to have begun to reinsert the continent into the dynamics of world trade and has resuscitated considerable interest on the part of the United States (US) government in African affairs. In the autumn of 2002, the British magazine The Economist made an accusation to this effect and this has been re-echoed by officials and researchers. To illustrate the basis for such conclusions, a 2001 report by Vice President Richard Cheney on US national energy policy affirmed that Africa would be "one of the fastest-growing sources of oil and gas for the US. Walter Kansteiner, a former assistant secretary of state for African affairs, under President Bush Jr. administration stated: "African oil has become an appealing national strategy for us"[iv]. In a December 2001 report by the US National Intelligence Council titled "Global Trends for 2015," it is predicted that by that year, one fourth of US oil imports will come from Africa[v].

In the last couple of years there have been series of visits, research and presentations by groups, think tanks and research agencies on the strategic importance of African oil to the energy security of the US. There have also been visits by top US generals to Africa on separate trips considered far from routine.

These group visits include that of the head of the US European Command, General James L. Jones, commander of the Marine Corps, and his deputy commander, Air Force General Charles Wald. Except for the Horn of Africa, the US European Command supervises all operations in extensive territories. In 2009, both President Barack Obama and Secretary of State Hilary Clinton visited Africa. President Obama's choice of Ghana was seen as indicative of US recognition of the country as a future key player in crude oil supply. Hilary Clinton's visit to Nigeria was remarkable in the sense that she pledged that the US would be willing to send 20,000 marines to the oil fields of Nigeria to help suppress local militancy there.

The reasons for this renewed interest in Africa which had been labelled a basket and a charity case is based on the need for the US to obtain secure energy sources given the volatility of supply from the Middle East. Oil production and export from the Gulf of Guinea alone (Nigeria, Congo, Gabon, Cameroon and Equatorial Guinea) is about 4,5million barrels per day, exceeding daily production rates from countries such as Saudi Arabia, Iran or Venezuela[vi]. The United States currently imports about 15% of its oil needs from the region and this is expected to rise to 25% by 2025. Members of the European Union are already importing 22% of their oil needs from the Gulf of Guinea. Nigeria alone is said to have the capacity, if the instability in the Niger Delta is resolved and the crude oil theft is checked to ramp up production to about 4million barrels of crude per day by 2015.[vii]

What has driven this renewed interest apart from the volatile nature of the supplies from the Middle East and the need to break the dependence of the west on oil supplies from that region is also the fact that oil from the Gulf of Guinea and many parts of Africa is of very high quality with little sulphur content. This sweet crude is easy to refine and the profit margins are higher than heavy crude imports from the Middle East.

There is also the very important fact that transportation of oil from Africa to the United States is faster and cheaper.

Finally, the West has evinced an intention to take complete control over the oil resources in Africa, especially in the Gulf of Guinea, by overt and subtle means such as the sending of special forces to Mauritania, Chad, Mali and Nigeria; ostensibly to train regional armies in counter terrorism but the idea essentially is to have these armies trained and at the disposal of the US military command to protect oil supplies and access. Some countries are being forced into this plan as a precondition for the grant of aid.[viii]

4 IMPACTS ON LIVELIHOODS BY OIL AND GAS ACTIVITIES

4.1 Environmental impacts

There are numerous environmental impacts of oil and gas activities in Africa and these could be summarized under the following headings:

Seismic surveys
On land oil companies during their seismic survey and data gathering process usually employ the use of high explosives or "thumper" trucks which hit the ground with enough force to generate seismic waves which reflect off the subsurface geological strata and are read by monitors above the ground. During this process many of the homes around the site of the explosion have their walls cracked.

In the sea, the companies use air guns capable of producing burst of sounds at over 200 decibels and over 150 times above normal atmospheric pressure, which reflect the geological strata beneath the ocean to be read by sensors and computers on a boat.

Studies have shown that seismic activities do have significant impact on marine ecosystems, including impacts on marine mammals, sea turtles and fishery. A drilling expert recently described some of this effect during drilling in the Nigeria-São Tomé Joint Development Zone: Fish died instantly when they swam close to the gas released from a test well which was not capped after it was found to contain only gas. A Norwegian study found a 70% decline in fish catch near the shore after seismic activities in an area.[ix]

Drilling
Many of the disposed drilling muds used in the oil industry cannot be independently tested to determine their toxicity because their composition is regarded as company secrets. Oil-based drilling muds are very toxic. Synthetic based drilling muds are less toxic but the use of barite as part of its constituents leads to the introduction of significant amounts of mercury into the environment.

Drill cuttings
These are sediments brought up from an oil well that is drilled. One exploration well can produce up to 4,000 tons of cuttings and one production well could produce up to 22,000 tons of cuttings[x]. Most of these drill cuttings are simply dumped around the surrounding areas of exploration and production. The drill cuttings contain benzene and toluene, two well-known cancer causing agents.

Produced water
Produced water is formation waters that are extracted from oil wells along with the oil. Some of these are known to have naturally existing radioactive materials and have many toxins and other hormone disrupting chemicals and are usually dumped in special ponds created for this purpose as used to be the case at a TotalFinaElf facility in Obagi area in the Niger Delta of Nigeria or simply dumped into surrounding water bodies after prefunctionary treatment. This affects farm output and fishery as well as the water table, making it unsafe to use or drink water from the water table, because of the presence of benzene and toluene. Additional waste water results when water is pumped into oil wells to boost oil extraction.

Gas flaring
Multinational companies burn off gas associated with crude oil that they do not want to capture and either re-inject into empty wells or utilize for energy generation, because it is cheaper to burn the gas than to do either of the above. The flared gas also contains cancer causing toxins and is responsible for acid rain, acidification of rivers and lakes, glare (impact on eye sight), skin and respiratory illnesses.

Pipelines
Right-of-way is acquired for pipelines laid in many communities and these are usually 25-30meters wide and usually take away arable land for farming from communities. It is usual to see pipelines traversing communities and cutting their paths to their homes and farmland. They are also susceptible to leaks and over the last half a century of oil production in Nigeria it is estimated that millions of barrels of crude oil have been discharged into the environment in Nigeria alone[xi]; owing to aging and malfunctioning pipelines, oil theft and to a lesser extent sabotage as a form of resistance. Pipelines laid on the sea bed also affect fish and fishing and other sea animals.

Offshore drilling platforms
Increased shipping traffic and the clear danger of diesel fuel pollution, gas flaring and leaks may not be noticed early by regulatory authorities and may therefore continue ad infinitum with devastating effects on the environment. Also fisher folks are often prevented from going close to the platforms to fish, restricting their ability to get good catch.

4.2 Social and economic impacts

The economic impacts of the oil industry are enormous. Because they bring in huge revenues, states easily become dependent on the petrodollars. This reliance on petrodollars invariably leads to the stifling of other sectors of the economy such as agriculture – a sector that traditionally employs more people on the continent. Moreover, when the levels of environmental impacts are considered, it is obvious that the environmental costs are externalised to local communities on whom the impacts rest. Thus, the local communities subsidise the cost of production of oil and assure the corporations and state actors of stupendous wealth while they remain trapped in poverty.

Oil impacts negatively on fisheries and crop yields. Apart from the impacts on fishing stocks, the toxic nature of crude oil and related contaminants mean that fish which ingest these substances end up passing them to the people who consume them. In this way the entire food chain is compromised.

Acid rain from gas flaring affects roofs, acidifies water bodies, increases the health care cost and as a result reduce productivity.

Women are disproportionally impacted in both the social and economic realms in the oil fields of Africa. They are the ones who form the majority of family farmers. It is their farmlands that are destroyed by spills. They are the ones who have to embark on the difficult search for potable water. They are also the ones driven in prostitution by oil workers who arrive in their villages with fistfuls of cash and disease. Besides, the women bear heavier health impacts manifesting in menstrual disorders, cancers and congenital birth defects.

In addition, the arrival of oil workers jerks the cost of living upwards.

The oil supports an enclave economy as there are no linkages between oil and the rest of the economy. The presence of oil often stifles growth in other sectors of the economy, leading to an addictive dependence on a single commodity over which producer countries do not have the power to determine pricing.

Gas flaring according to World Bank estimates costs Nigeria about USD2.5 billion yearly in lost revenue.

Few long term jobs are created within the oil industry because a greater percentage of the jobs in the industry is related to the manufacture of equipments used in the fields. Much of that is produced in Europe, North America or Asia and simply brought down for installation in the oil fields of Africa.

The oil multinationals do not have actual presence in the countries in which they operate in the sense that most of the equipments used are hired or leased.

Cost of living increases although only a few people work with the oil companies, making it difficult for a significant section of the population with no links to the oil industry to make ends meet.

Most of the jobs in the oil industry are for highly skilled persons and these persons are usually expatriates.

4.3 Political impacts

Just as oil and conflicts appear to have some correlation, there is also a sort of tendency for countries endued with the resource to tend to have less than transparent political systems. This happens when political office holders seek to perpetuate themselves in office in order to lose their positions of

privilege. Moreover, as in the case of Chad, oil revenues were used to procure weapons, in flagrant disregard of agreements that the funds would be used on productive ventures. This has been documented with regard to the Chad-Cameroon pipeline project, which was supported by the World Bank.

Unfortunately, the governments in many oil producing countries tend to owe allegiance to the oil companies and often take sides with the oil multinationals against the people they are supposed to represent. There is no accountability to the people of the country. Centralised revenue inflow and less than transparent management makes the battle for political control a do-or-die affair. Rents from oil fuel corruption. But this needs not to be so if the revenue handling and tracking system are transparent.

Partnership between industry players and politicians on the continent works out in a system of mutual help as the companies prop up regimes with petrodollars while the regime offers the companies freedom to do their work with scant attention to standards. From such scenarios, increased militarization and violence to enhance the unhindered flow of oil is the result, together with a heavy cost to the environment, livelihood and life. Often, the excuse for the horrendous human rights abuses that take place in oil producing communities is to prevent oil theft, sabotage and terrorism.

5 MAJOR OIL PRODUCING REGIONS AND COUNTRIES

5.1 The Gulf of Guinea

The Gulf of Guinea is the large open arm of the Atlantic ocean formed by the great bend of the coast of West Africa. It is considered the geographic centre of the earth because it is where the equator and prime meridian meet. The Gulf with its islands and coastlines extends from the western coast of the Ivory Coast to the Gabon estuary. The Gulf of Guinea encompasses about 11 countries; the bights of Benin and Biafra are also part of the Gulf of Guinea.

Production of oil in the Gulf of Guinea began in the late 1950's and it is conservatively estimated to have in excess of 35 billion barrels of recoverable crude oil, one of the largest conventional oil reserves in the world outside the Middle East[xii]. It also possesses one of the largest natural gas reserves in the world. The presence of this massive amount of recoverable crude oil and gas has led to some countries in the region to out-muscling others for a larger slice of the oil and gas wealth in the area. Nigeria arm-twisted São Tomé and Principe into the Joint Development Zone (JDZ) agreement and would be entitled to 60% of the oil reserves in the JDZ, although geographically the JDZ belongs to São Tomé and Principe. The JDZ is estimated to have over 11 billion barrels of recoverable crude oil. The Gulf of Guinea also harbours one of the planet's richest and most diverse ecosystems and biodiversity.

5.2 Ghana

The story of oil discovery in Ghana often came up as a point in political campaigns with politicians promising to find oil and develop the sector for the overall transformation of the Ghanaian economy. This went on for some years and it was not until the UK firm Tullow Oil announced the discovery of 600 million barrels of light oil offshore from Ghana that the reality finally took hold.

Tullow Oil jointly owns the West Cape block where the oil was found with Anadarko Petroleum. The firm also has share rights to the adjacent Tano basin which would possibly yield more oil. Tullow Oil holds a 22.9% stake in the West Cape Three Points licence and just under 50% in the Deepwater Tano licence.[xiii] At present Ghana is experiencing the oil fever with the huge find and is already drawing

attention from oil industry businesses. The irresistible pull is fuelled by pronouncements such as that of Mr M.O. Boateng, the Managing Director of the Ghana National Petroleum Corporation, who said that there is a huge potential for oil in Ghana and that the recent discovery of 600 million barrels of light oil offshore from Ghana is just the tip of the iceberg.[xiv] Also in June 2008, the then President of Ghana, John Kufuor, enthused that "with oil as a shot in the arm, we're going to fly."[xv]

As with Cameroon, civil society focus on the Ghanaian oil sector has been kindled by a pipeline. But whereas the pipeline in Cameroon conveys crude from Chad, the pipeline to Ghana is a gas pipeline conveying gas from the Niger Delta through Benin and Togo. Both pipelines had the support of the World Bank and provided impetus for the mobilisation of civil society groups in the respective countries as well as regionally. In the case of the West African Gas Pipeline Project, Oilwatch Africa played a pivotal role in such mobilizations.

5.3 Nigeria

Nigeria occupies a unique place when it comes to oil and gas activities in Africa. First, it is the largest producer of crude oil, at about 2.3 million barrels per day when the oil fields are not riddled with violence. Secondly, the oil fields of Nigeria have become a metaphor for wanton environmental despoliation by an industry. We give most attention to the discourse on oil in Nigeria in this analysis because of the industry's activities here and because of the pains the communities living in the oil belt have suffered. A further reason is that it points at what may happen in other countries in the region if the slide to the bottom is not checked.

The story of oil has been the bane of the region where oil is extracted in Nigeria, the Niger Delta. When palm oil was needed by British companies in the pre-colonial era, the British secured a monopoly of the trade in palm oil through sacking Brass, a major trading community in the Niger Delta in 1895. The company that achieved that military cum mercantile feat was the Royal Niger Company. A hundred years later, Ken Saro-Wiwa and eight other Niger Delta leaders were extra judicially murdered in a bid to silence the people and ensure that oil corporations have a free reign over their activities in the region. Clearly, might have so far won in very unequal struggles for the appropriation of resources in the region: whether palm oil or crude oil. [xvi]

The first exploration for oil in Nigeria began with the Nigerian Bitumen Company, a subsidiary of a German firm, prospecting for oil in the area north of Lagos between 1907 and 1914. Commercial exploitation commenced in 1958.

In an analysis comparing the practices of Shell oil company in Nigeria with international standards to prevent and control pipeline oil spills, Professor Richard Steiner of the University of Alaska observes that "Throughout 50 years of oil production, this ecologically productive region has suffered extensive habitat degradation, forest clearing, toxic discharges, dredging and filling, and significant alteration by extensive road and pipeline construction from the petroleum industry. Of particular concern in the Niger Delta are the frequent and extensive oil spills that have occurred. Spills are under-reported, but independent estimates are that at least 115,000 barrels (15,000 tons) of oil are spilled into the Delta each year, making the Niger Delta one of the most oil-impacted ecosystems in the world."[xvii]

Professor Steiner, a biologist, further noted that oil spills have a significant impact on the natural resources upon which many poor Niger Delta communities depend. Drinking water is polluted, fishing and farming are significantly impacted, and ecosystems are degraded. Oil spills significantly affect the health and food security of rural people living near oil facilities. Additionally, oil spills and associated impacts of oil and gas operations have seriously impacted the biodiversity and environmental integrity of the Niger Delta.

Apart from these direct environmental impacts and although the industry regularly claims that most of their oil spills are caused by sabotage, it is believed that the rate of spills per length of pipeline in the Niger Delta is much higher than is the case in developed countries such as the US. The conclusion reached by Steiner is that "This, and other evidence, suggests that oil companies operating in the Niger Delta are not employing internationally recognized standards to prevent and control pipeline oil spills."[xviii]

5.4 Cameroon

Crude oil exploration commenced in Cameroon in the 1950's with Elf as the sole explorer until 1965. The focus of activities was in the Douala Basin. The other oil majors Shell, Total and Mobil later on joined Elf. The discovery of oil in Nigeria encouraged the explorers to shift their attention to the Rio del Rey Basin and here oil was found (in the 1970s) at the Asoma, Bavo, Betika, Ekoundou, Kole, Kombo and Makoko fields.[xix]

Crude oil production at the Rio del Rey Basin rose to a peak of 158,000 barrels per day and thereafter production levels began to fall. Crude oil production in Cameroon fell from 84,800 barrels per day in 2000 to 67,000 barrels per day in 2003 and further down to 50,000-60,000 barrels per day by 2005. But for the discovery of new fields off the coast of Kiribi-Campo area following exploratory activities in the late 1990's, crude oil wells in Cameroon was expected to be depleted by 2010.

In addition to crude oil, condensate and gas were discovered in the Batanga, Benda, M'Via and N'Koudou fields of the Douala Basin in the 1980's. Currently crude oil activities in Cameroon are mostly offshore with the involvement of Shell, Total, Tullow Oil, Addax Petroleum Company and EurOil Limited as key actors.

Chad-Cameroon Pipeline

The project that has drawn much attention to Cameroon's oil activities is the discovery of oil in Chad and the need of a pipeline to take that landlocked country's oil to export terminals at the Atlantic coast. The Republic of Chad began its current effort to develop its oil resources in 1969. Significant oil resources had been confirmed in the Doba region of southern Chad by 1993. The Chad-Cameroon pipeline project includes a 1,070-kilometer pipeline carrying Chadian crude oil across Cameroon to an export terminal 11 kilometres offshore from the coast of Cameroon near Kribi.[xx] When construction commenced in October 2000, the Consortium consisted of ExxonMobil (40%, project operator), Petronas (35%), and Chevron (25%). The pipeline project has World Bank oversight and received local and international civil society scrutiny because it traverses pristine rainforest inhabited by threatened and marginalised Pygmies people. The pipeline has brought severe environmental and social impacts to the communities along its route.

5.5 Gabon

Gabon has an estimated 1.99 billion barrels oil reserve. As exploitation has progressed, it was estimated at the beginning of 2005 that without the discovery of new fields the oil fortunes of Gabon's would dip by 2012. However, the oil fortunes began to raise again due mainly to the entry of smaller oil industry players who found new oil. During the first nine months of 2006, Gabon produced 237,000 barrels per day of crude oil, which was a small increase from 2005. Analysts traced the main reason for Gabon's decreased oil production to the nation's largest producing oil field, Shell's offshore Rabi-Kounga, which production dropped to about 55,000 barrels per day from a high of 217,000 recorded in 1999. Indeed, Shell had to embark on gas reinjection to boost production in this field[xxi].

Over 50% of Gabon's crude oil is exported to the United States while most of the remaining crude is taken up by Western Europe and to a lesser extent the Far East. The State holds the ownership of oil and gas and all mineral rights in this country.[xxii]

Reports of environmental incidents in this country are not readily available. Possible reasons for this situation include the political context and the low capacity of relevant civil society groups in the country.

5.6 Angola

Angola is in South-Central Africa, bordering Namibia to the south, Democratic Republic of the Congo to the north and Zambia to the east. There is also an enclave province, Cabinda, which lies to the north of Angola which was a Portuguese colony from the 16th century to 1975. The country is the second-largest crude oil exporter in Africa. A significant portion of this oil production comes from the Cabinda fields.

Angola went through nearly 28 years of civil war suspected to have been mostly engineered by a struggle for control of either diamonds or crude oil supplies. The country's fractious war had a heavy toll on the civilian population and the country still suffers from the abundance of landmines and guerrilla movements fighting for the independence of the northern enclave of Cabinda[xxiii]. The protracted civil war in Angola did not end until Jonas Savimbi, the leader of the rebel movement was shot dead, his death announced and his body displayed on 22 February 1998.

Oil was first discovered in 1968 and in recent times Angola's production has sometimes exceeded that of Nigeria, producing up to 1.8 million barrels per day. It is estimated to have deepwater reserves of about nine billion barrels of extremely high quality crude and may have increased production to two million barrels per day in the near future. Corporations here include the same big names involved as in other African countries (ExxonMobil, ChevronTexaco, British Petroleum and Total). Angola has the second fastest growing economy in Africa, thanks to Chinese investment and the increase of oil production in the country. Yet 70 percent of Angola's more than 12 million people live in abject poverty in one of Africa's potentially wealthiest countries.

Oil spills have been recorded in Angola as would be expected. What really surprised the world was when the government handed down a USD2 million fine to Chevron for an oil spill at an offshore platform. It was the first on the continent. The spill had occurred in June 2002. This spill was said to have impacted beaches and ruined fishing grounds.[xxiv]

A major spill occurred on 28 May 1991 when a ship exploded 700 nautical miles off the coast of Angola creating a leakage of 51-81 million gallons of oil into the ocean.[xxv]

5.7 Sudan

To understand the oil industry in Sudan today and how far it has progressed since oil exploration in 1959, it is useful to trace the history of upstream oil activity and identify the key players involved. Numerous multinational companies have been tempted by the prospect of lucrative oil wealth in Sudan, but it took twenty years before the first oil was discovered in 1979. Before this time much of the oil exploration took place offshore in the Red Sea, and was undertaken by companies such as Italian Agip Mineraria, Oceanic Oil Company, Texas Eastern Company, and Union Texas. The results of this exploration were largely negative, except for a gas find by Chevron 120 km south-east of Port Sudan in 1974.[xxvi]

Oil exploration began in the south-west of Sudan in 1975, with Chevron acquiring a concession in the Muglad and Melut basins.The most significant oil discovery came in 1980 when the Unity oilfield North of Bentiu was discovered. A year later, another major discovery was made in the Adar oilfield, which was drilled by Qatar's Gulf Petroleum Corporation, Concorp of Canada and Sudapet[xxvii]. The third significant oil discovery was that of the Heglig field in 1982, 70 km north of Unity field. The early eighties thus saw numerous discoveries of lucrative natural resources, especially in a country heavily reliant on agriculture for hard currency earnings. Sudanese oil reserve stands at about 560 million barrels.

The significance of these discoveries was not lost on the Sudan Peoples' Liberation Army (SPLA) which had re-launched the armed struggle against the North in 1993, following the imposition of Sharia law by the Khartoum regime. Oil operations became a primary target for rebels who were intent on weakening the government and denying it revenues gotten from oil. In 1984, the SPLA attacked the oil operations of Chevron in Unity field, killing three employees, and prompting Chevron to abandon its USD800 million investment in the area and pull out of Sudan[xxviii]. This incident is not easily forgotten by oil companies, however this has not dissuaded many of them that entered into oil exploration even in the midst of the war and genocide in Darfur.

We cannot end this section without mentioning the heavy presence of the Chinese in the Sudanese oil sector. Indeed, the Chinese interests in the oil sector here is thought to be the reason why the regime in Khartoum was able to escape serious sanctions from the United Nations on account of China's veto power on the Security Council. China reportedly buys as much as 60% of Sudan's oil. [xxix]

5.8 The Horn of Africa and East Africa

Tom Windle is a geologist who has worked extensively in Africa, especially around the Gulf of Guinea. He has now his sights set on the Horn of Africa and East Africa and has argued that East Africa may hold the key to future world oil supplies. He argues that the combination of prolific Gulf of Guinea and the potentials of major discoveries in East Africa reinforces his belief that Africa would play a very important role in future world oil supplies.

Oil and gas exploration commenced over 50 years ago in several countries around the Horn of Africa and East Africa. There were, however, no pre-independence discoveries as happened in many of the countries around the Gulf of Guinea which drove massive investments in exploratory activities and new discoveries in those areas.

Political and economic upheavals around the Horn of Africa and East Africa made it difficult for any sustained exploration activities onshore during the post-independence era. However, some drilling took place offshore. There are reports that Conoco made large discoveries in Northern Somalia in the late 1980's just before the outbreak of conflict in the country.

5.9 Ethiopia

The Gambella region of Ethiopia directly bordering Sudan is known to have the same Melut oil basin in which two of Sudan's biggest oil fields are found. The Chinese are very active in Ethiopia and their operations have been attacked at least one occasion. The Ogaden exploration area was attacked by local militia in 2007 and there is a heavy military cover in the area provided by the Ethiopian army[xxx]. Interestingly, there has been no official confirmation of the discovery of oil in the Ogaden area although it is said that there are definitely good prospects that oil and gas would be found and further exploration is ongoing. PETRONAS of Malaysia is also a major player in exploration activities in Ethiopia as well as a host of other small independent companies who would ultimately sell their interests in any

field where oil is discovered in commercial quantities to the major oil multinationals waiting in the wings to snap up such finds.

5.10 Uganda

The discovery of crude oil in the Lake Albert area of Uganda sent signals of joy and worries to different audiences in the region. While the people of Uganda saw the find as a relief and a possible source of wealth for their country, the government of Kenya saw it as having unexpected implications for their own oil business. The situation is that although Kenya does not produce crude oil, it refines imported crude and then sells the refined products to Uganda and other neighbouring countries.[xxxi]

The industry is still at take-off points, but there are considerable concerns about potential environmental impacts. The major reason for this is that some of the oil has been found in the biodiversity hotspot around Lake Albert, which is also the source of the White Nile.

6 PRODUCTION AGREEMENTS AND LOCAL CONTENT POLICY

There are generally three types of oil licences in operation in many of the oil producing countries in Africa. These are the Oil Mining Lease (OML), Oil Exploration Licence (OEL) and the Oil Prospecting Licence (OPL). An OEL is granted to enable a company start exploration activities such as seismic studies and drilling of test oil wells but any company with this licence is prohibited from actual production of oil. The OPL allows a company that has it to search/conduct seismic surveys, drill and produce oil if it is found. While the OML is a long term agreement between the government and the oil company to produce oil from a particular oil field, the OML usually lasts for 30 years onshore and for 40 years offshore[xxxii].

The increase in oil prices in the international market made possible by the 1973 Yom Kippur war and the actions of the Organization of Petroleum Exporting Countries (OPEC) led to the rise in oil production in Nigeria and by 1975-76 Nigeria was producing about 2million barrels of crude oil per day. The massive amount of revenue accruing to the government at the time meant that there was almost total focus on growing the oil industry to the exclusion of other sectors of the economy. But the global economic downturn in the early 1980's led to steep decline in investments in oil exploration and production and this impacted heavily on national revenue.

In the 1970's the Nigerian government had begun a gradual process of setting up joint venture agreements with the oil multinationals by acquiring 60% shareholding in the major multinational companies. However, although the Nigerian government had taken major participatory shares in the multinational oil companies, these companies were not particularly bothered because they still exercised full operational control over the joint venture. For many of them the only implication of the joint venture and the acquisition of controlling stakes in the oil business was that the Nigerian government picked up 60% of the budgeted cost of production that they prepared yearly, with little input from the Nigerian government.

As oil prices and investments fell in the 1980's and1990's the government moved to stimulate new investments in oil and gas production by entering into agreements with multinational oil companies called the Memorandum of Understanding where the companies were given enhanced financial incentives to invest in new oil production. Governments were more pliable in the hands of the oil multinationals and they could and did dictate terms of operations and profit sharing, taxes and royalties.[xxxiii]

The increasing importance of oil to national revenues also meant that issues around regional control of resources took a back seat. At independence in Nigeria, regional governments in Nigeria were entitled to 50% of the revenues accruing to the federation from the natural resources and commodities sourced from the region. But as the international price of oil increased in the international market the 50% share to states from which oil was being produced was gradually reduced until 1982 when it was totally abolished.[xxxiv]

However, with the rebound of global demand for crude oil as a result of consistent growth in the global economy and the phenomenal growth of China, India and Brazil in the last decade and a half the local content policy, which was initiated in the late 1990's, was reinvigorated. Local content entails the training/development of local skills, technology and utilization of local manufacturing capacity in executing oil projects. It also incorporates the relinquishing of marginal fields by multinational operators to enable indigenous companies to participate in oil production without the necessity of expending enormous resources in acquiring seismic data and drilling test wells.

Many of these reforms and agreements did not benefit the generality of the masses as middle men in the corridors of power colluded with oil multinationals to cream off the revenues through upfront payments, which are later added as part of production cost. There are several examples of this from the Halliburton scandal, to the payment of percentages to government officials for oil lifting contracts, the over inflation of contracts such as the Escravos gas-to-liquids project. A similar gas-to-liquids project was constructed by the same company in Qatar for USD950 million but in Nigeria the initial contract went for USD2.1 billion and recently the project promoter ChevronTexaco is seeking a variation of cost and the new cost would be around USD4 billion.[xxxv]

7 EXPANDING THE OIL AND GAS FRONTIER

Africa in the last few years, especially with the price of crude oil crossing the USD100 threshold last year, witnessed renewed exploration for oil and gas around the Horn of Africa and East Africa. New petroleum laws in the form of production-sharing contracts have been entered into with many of the countries involved. These countries include Eritrea, Ethiopia, Djibouti, Somalia, Somaliland, Puntland, Sudan, Kenya, Uganda, Rwanda, Burundi, Tanzania, Mozambique, Madagascar, Malawi, Mauritius and Seychelles. Apart from Sudan and Uganda, where oil has been found in commercial quantities, other areas are still said to hold promising prospects for the discovery of oil. In the western part of Africa there has been new oil discoveries in Mauritania and recently in Ghana and explorations are still ongoing in Mali.

However, it appears that lessons have not been learnt from the experiences of older oil producing countries. Oil and gas production is still following the same problematic trajectory that has brought Nigeria, Gabon, Cameroon and DR Congo to the edge of the praecipe. Once oil is discovered in significant quantities, the rush to produce often overwhelms reason and precaution and wholly untenable assurances of development, growth and wealth are promised by politicians to lull the citizens into a false sense of security and expected prosperity.

Nothing is sacred in the search for oil; some of the richest ecological bio diverse sites are not spared in the rush to earn rent money from oil with the resultant petrodollars hardly bringing benefits to the poor people in the countries. As earlier stated the Gulf of Guinea has been cited as one of the richest bio diverse areas but it has not stopped governments and oil multinationals from exploring in the gulf without adequate plans in place to protect the environment. Science is still very far from comprehensively examining the interconnectedness of nature and the harm we are doing to our present and future by dabbling into areas where we do not have adequate understanding of these linkages.

7.1 Gas pipelines

The construction of gas pipelines is related to gas developments on the continent. Global attention was focused on the World Bank supported Chad-Cameroon oil pipeline, but another contentious pipeline is the West African Gas Pipeline (WAGAP), which takes gas from Escravos in the Niger Delta of Nigeria to industries in Benin, Togo and Ghana. Heralded as a project that would foster regional integration as well as supplying gas for domestic use, the reality is that the pipeline is doing none of that, mainly because it is supplying gas to mining companies who process ores for external markets. The gas following through the pipeline is not aimed at domestic/ household consumers. The WAGAP became notorious for not adhering to requirements of Environmental Impact Assessments. This gap was utilised by civil society groups such as Oilwatch Africa and the Environmental Rights Action to mobilise communities to raise concerns about the project.

Another pipeline that has engaged civil society attention is the gas pipeline between Mozambique and South Africa. A potentially contentious pipeline is the one proposed to take gas from the Niger Delta through the Sahara Desert to Algeria and on to Europe. This pipeline is still at inception stages.

Selected pipelines in Africa:
- West & Central Africa
  - West African Gas Pipeline: Nigeria, Benin, Togo and Ghana
  - Chad-Cameroon pipeline
  - Pipeline from Cote D'Ivoire to Ghana
- East Africa
  - Sudan-Red Sea oil pipeline
  - Kenyan-Uganda pipeline
  - Uganda-Tanzania to supply Uganda, Rwanda, Burundi and Congo DR
  - Kenya-Tanzania oil pipeline
- Southern Africa
  - Zimbabwe-Mozambique
  - Tanzania-Zambia oil pipeline
  - Namibia-South Africa gas pipeline
  - Mozambique-South Africa gas pipeline
- North Africa
  - Egypt- Libya oil pipeline
  - Egypt-Jordan gas pipeline
  - Algeria-Tunisia-Italy gas pipeline
  - Algeria-Morocco-Spain-Portugal gas pipeline

7.2 Bitumen

As the world scrounges for fossil fuels, more and more efforts are being expended on dirtier forms of oil. Stories of massive environmental impacts of tar sands extraction have emerged from Canada. What is not widespread is the news of tar sands works in Africa, perhaps because here it is mostly called bitumen. Bitumen works are already ongoing in Congo. Huge deposits have been found in Madagascar. The entire Western region of Nigeria is rich in the mineral and efforts are being made for its extraction to commence. Bitumen extraction is more environmentally intensive than crude oil due to the open cast methods where the earth is simply ripped open for the mineral to be scooped. This, together with the methods of using steam to melt the bitumen before extraction, will surely pose great danger to the communities and their environments. There will be displacements of people, and associated impacts and rights abuses may be expected.

7.3 Bio fuel

Apart from the increase in oil exploration and production in Africa there has also been a significant campaign to turn Africa's arable land into plantations for the cultivation of crops for use as bio fuel. This campaign is being driven essentially by the intention of the global north to pass on its obligation to take immediate and drastic actions to reduce and ultimately eliminate the unsustainable amount of carbon emission coming from their factories and lifestyles. Some African countries have been seduced into believing that bio fuel is a good replacement for fossil fuel.

Senegal's president Abdulahi Wade had boasted that bio fuel from his country would create a new organization that would rival OPEC in terms of their share of global energy supply. However, it is now well known that bio fuel is a false solution, as testimonies from communities in South America have revealed. The destruction of the rainforest to create bio fuel plantations is now regarded as the single most important contributory factor in the climate change phenomenon. As Charles, the Prince of Wales, stated in the Prince Charles Foundation advert "the destruction of the rainforest contributes more carbon emission into the atmosphere than all the factories, cars and other polluting agents put together".

Bio fuel will not replace fossil fuel. It will rather help to keep the world on the fossil fuel mode because apart from being largely a supplement to fossil fuel, they both operate on the same logic: pipelines, refineries and related infrastructures

8 CHALLENGES AND OPPORTUNITIES FOR CIVIL SOCIETY ACTORS

There are many reasons to worry as we see more oil being found in highly bio diverse lands of the Rift Valley in East Africa. Hopes are rising again. Oil majors are entering into contract arrangements and getting set to drill, even in sensitive ecological areas. The African continent appears to have been divided among the oil corporations in concessions and plots for their exploitation and destruction. The scramble for Africa is seeing oil activities rapidly spreading in Eastern and Southern Africa. While the oil and gas fever grips the tycoons in Tanzania, Mozambique, Madagascar, Chad, Mauritania, Ethiopia, Eritrea, Somalia, etc, the local communities are never brought into the picture of the challenges they would soon have to confront.

As we have seen, oil raises hopes and dashes them all across the African continent. From Nigeria to Angola, Sudan and others the story is largely the same. Oil and natural gas extraction cause environmental damage and often violent jockeying for the spoils continue to fuel instability, popular resentment and combustible anger.[xxxvi] We have also seen that oil and conflicts appear to be twins in today's world and the crisis must be viewed both in economic and political terms as a major *for-profit* venture[xxxvii]. Understanding it through this filter is crucial to our seeing why we appear trapped in intractable murky waters and it may also help us construct bridges over which we may come out of the malaise.

As already noted, the Oilwatch Africa network emerged as a subset of a larger network, Oilwatch International. Unlike some NGOs that analyse contexts and seek official accommodation with them, the Oilwatch network aims to use its analyses of situations to address environmental problems created by the extractive industry. The network also seeks to use such analyses to tackle social externalities and engage in mass mobilisation to encourage a response from officialdom. These add up to empower communities to act as agents of change.

In the African context, there are many established civil society groups working in the landscape. Many of these are large Northern originated NGOs and they are often drivers of government policies that

complement existing patterns rather than challenging them. There are reasons for this. For one, they are not indigenous to the continent and would not want to be thrown out. Secondly, it can be argued that these groups have a somewhat different perspective from local groups on situations and what needs to be done. On the other hand, some of these largely professional NGO groups have been very vocal on the basis of their not being tied to the continent through the umbilical cord of origins. Such NGOs include Oxfam, Bread for the World, Catholic Relief Services, and Christian Aid.

Some local African NGOs have equally adopted advocacy strategies that work to legitimize government policies and responses to degrading activities of the extractive industry as well as international financial institutions such as the World Bank. However, some organisations such as Oilwatch deliberately organise non-violent 'resistance' to entrench power structures and open up spaces for participating civil society - including community - groups for exchanges and self-articulation and strengthening of demands for environmental and livelihoods protection.

The challenges confronting Oilwatch Africa also provide opportunities for action and the attainment of positive results.

A cardinal aim of Oilwatch is to "stop the expansion of socially destructive and environmentally damaging oil activity in the tropics and other parts of the global South"[xxxviii] and to "support all initiatives of local peoples to resist fossil fuels activities"[xxxix] Oilwatch sees the fossil fuel civilisation as a vicious cycle that needs to be broken by a deliberate departure from the mode of production.

The challenge for the Oilwatch Africa network includes the fact that it is a network of autonomous NGOs and community based organisations. To this autonomy is the added fact that the countries in which the groups operate are open or closed to dissent to varied degrees. The level of development of NGO activism is equally not uniform across member groups.

And example of the variegated responses of Oilwatch members was manifest in the process of the World Bank's Extractive Industry Review (EIR). Some Latin American and African groups opposed the process rejecting the Bank's financing of mining projects. At the same time, some others participated in the consultations. Some Oilwatch Africa members played leading roles in the mobilisation of African civil society to make a strong input into the EIR, and facilitated the drafting of a statement calling on the World Bank Group to "stop financing and support for mining, oil and gas in Africa until adequate and transparent mechanisms are established for lending as well as damages to national economies, local communities and environment by current World Bank Group financing are addressed."[xl]

Although diversity can at times be weakening, it often is a strength as long as there is a foundational skeleton that holds everything together. The opportunities arising from the above is that groups bring into the network a diversity that can be harnessed into strength through solidarity and self reinforcing actions. The challenge of uneven strength offers opportunity for learning and capacity building within the network. From experience, one path for capacity building is that of exchange field visits and participation in joint activities and meetings. This is a key means by which Oilwatch build solidarity between member groups.

With the emergence of new oil nations on the continent – including Ghana and Uganda – there is the urgent opportunity of knowledge sharing with civil society actors in those countries and equipping them with tools by which they can monitor the activities in the oil/gas extractive sectors and ensure that operators are accountable for their actions. Here, trainings on environmental monitoring, environmental impact assessment (EIA), oil spill monitoring and remediation methods will be invaluable.

Other general challenges and opportunities for Oilwatch in countries such as Nigeria, Ghana, Cameroon and Uganda include the following:

1. Over dependence on oil revenue grants the industry an almost unassailable position that often has government protecting the industry rather than the people or their environment. This is the case in Nigeria.
2. Environmental degradation and deepening poverty in the oil fields and pipeline routes makes local populations hostile to the industry. This could manifest ultimately in open conflict, as has been the case in Nigeria. Areas to watch out for this include Cameroon where the Chad-Cameroon pipeline has delivered little by way of benefits to local communities. Uganda is often prone to being emerged in regional conflicts and there is a challenge here with the entry of crude oil as a trigger.
3. Emerging oil countries start out with small exploratory companies who do not appear to have much expertise in oil production activities. These companies explore while the majors stay in the wings waiting for large discoveries before they enter the scene. Inexperienced countries end up having poor deals with such companies. Places to watch out for this are Ghana and Uganda.
4. Lack of adequate environmental laws and enforcement mechanisms– all countries would here benefit from trainings on environmental impact assessment laws. In Nigeria, there is a further need to track the evolution of the Petroleum Industry Bill.
5. Transparency issues pose challenges to all the countries. Oilwatch members will need to be engaged in the Extractive Industries Transparency Initiative (EITI) processes and fight to open space for including of environmental audits beyond the financial ones.
6. The corporations are the operators in the sector and there is little or no government/ independent oversight. Oilwatch could work with government agencies to see that there is an acceptable level of oversight for example in monitoring extraction volumes and adherence to standards. This will require capacity building.
7. Oil is being explored and/or extracted in high consequence areas for spills – populated areas, drinking water areas, and productive and fragile ecosystems. This is the case in all the countries in our focus. The opportunity here is that of strict monitoring and campaigning for remediation. It includes the need for capacity building on basic toxicology.
8. Emerging oil countries do not have a comprehensive strategic plan for the management of the industry – to ensure protection of the ecosystem and local livelihoods. This provides opportunity for advocacy and lobbying in Ghana and Uganda.

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