

Oil Exploration and Human Security in Nigeria: A Challenge to Sustainable Development

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Abstract

The paper examines the effects of oil and gas exploration and production in the Niger Delta region of Nigeria. It argues that oil and gas exploratory activities rather than improving the lots of the people have had negative impacts on the rural populace and the environment at large. The economic, social and cultural rights of the people in the Niger Delta, the main oil producing region in Nigeria are unfulfilled, leading to increasing frustrations and tension both within and between communities. Activities of the youth gangs in this area have added in no small measure to the high prices of crude oil in the international market. The paper suggests that since the underlying issues are neglect, marginalization and the peoples' quest for economic justice, policy makers should improve productive activities and ensure the security and welfare of the citizens. This will help to achieve a proper and sustainable development in this region and Nigeria as a whole.

Introduction

Oil and natural resources of a country are often considered to be national assets. Records however show that this is not true particularly in Nigeria. The wide dichotomy of oil wealth and lack of social benefits has come to be known as 'The Oil Curse' (Birdsall et al 2004). Birdsall and Subramanin explain that there are thirty-four (34) less developed countries that are rich in mineral and oil resources and that 12 (33%) of these countries have per capita income that remain less than \$1 a day. Their health indices are poor, infant mortality high; literacy rate and life expectancy are low.

Three explanations were adduced for these anomalies. First they explain that fluctuations, in global prices create dangerous unpredictable economic cycles so that government cannot plan for social development, particularly when they spend widely in times of economic boom and simply run dry when the oil prices fall, leading to economic bust.

The second explanation is known as 'Dutch Disease'. This happens when resources are discovered and the country becomes a strong economy. The currency becomes stronger and its products become expensive in the world market. The result is lower export and lesser revenue. The country then suffers from economic slump with its accompanying fallouts.

The third and probably the most important explanation is the lack of strong political and economic institutions in the resource rich countries. Two thirds of the oil and resource rich countries are not democratic. Of those that are democratic, only three, Ecuador, Sao Tome and Principe, Trinidad and Tobago, are in the top half of freedom houses world ranking of political freedom (Birdsall and Subramanin 2004). Some researchers also have argued that countries that depend on oil and mineral extraction industries are more likely to suffer civil conflicts and also their economic growth rate have been lower than natural resource poor nations (Obadina 2003)

Petroleum is a leading mineral produced in Nigeria. It is found mainly in the Niger Delta which comprises Akwa Ibom, Bayelsa, Delta and Rivers States and in Abia, Imo and Ondo States. The region is blessed with abundant natural resources, good agricultural land, extensive forests, rich fisheries deposits as well as abundant oil and gas deposits. The mangrove swamp is the largest in Africa and the third largest in the world (NDES 1997). June 2006, is the 50th anniversary of discovery of oil in Nigeria. Although oil exploration began in Nigeria in 1938, when Shell d'Archy (later Shell-BP) obtained a license, it was not until June 1956, that the company discovered oil in commercial quantity at Oloibiri (in present Bayelsa State). By 1958 Nigeria became oil exporter with a production of about 6,000 barrels a day.

Nigeria today is the World's sixth largest oil producer and the 8th largest exporter of crude oil. Petroleum alone provides up to 70% of Nigeria's foreign exchange. Of Africa's proven crude oil reserves of some 66 billion barrels, Nigeria accounts for 25 billion barrels, more than 35% of the total. However, the abundant oil and gas deposits, which should have been a blessing, have had very negative impact on the environment due to unsustainable explorative activities being practiced without consideration to the environment. These negative impacts do not end on the biophysical environment alone but also affect the well being of the people including their security. The objective of this paper is to identify these environmental consequences of petroleum and gas exploration in Nigeria and suggest strategies to ensure human security and sustainable development in the region.

The concept of Human Security

The traditional goal of 'national security' has been the defense of the state from external threats. The focus on human security, by contrast is the protection of individuals. The UNDP (1996) noted that human security implied safety from chronic threats such as hunger, disease and oppression and also protection from sudden and hurtful disruptions in the patterns of everyday life. Also the Global Environmental Change and Human Security Science plan maintained that

Human Security is achieved when and where individuals and communities have the options necessary to end, mitigate or adapt to threats to their human, environmental and social rights; have the capacity and freedom to

exercise these options; and actively participate in pursuing these options (GECHS 1999).

Attaining human security also implies challenging the structures and processes that contribute to insecurity. A very strong indicator of insecurity in the Niger Delta of Nigeria is excessive State violence and spiraling conflicts by the people. This state of violence takes several forms:

- Harassment, arrest and detention of community leaders
- Abduction and kidnapping of oil workers by restive youths
- Conflict among communities
- Direct repression using armed forces and police.

Another indicator of insecurity is poverty. Poverty headcount indicate that over 58% of the population in the South-South zone of Nigeria (mainly made up of the Niger Delta people are poor – see table 1.

Table 1: Poverty Headcount (in %) by zone, 1996 in Nigeria

Zone	Non poor	Moderately poor	Core poor	Total
South-South	41.8	34.8	23.4	58.2
South-West	38.1	33.4	27.5	60.9
South-East	46.5	35.3	28	64.7
North-West	22.5	39.9	37.3	77.2
North-East	29.9	35.7	34.4	70.1
*Akwalbom (South-South)	27.7	38.9	33.4	72.3
All Nigeria	29.3	36.3	34.4	70.7

Source: Federal Office of Statistics, FOS (1999)

Although as the table shows, the region is not necessarily the poorest. The figures should actually be interpreted in the context of the region contributing over 70% of government revenue. On State basis, Akwa Ibom, a producer of oil has 72.3% of its population in poverty. This is higher than the national average of 70.7%.

The Niger Delta is a swampy area of about 70,000 square kilometres with about six million inhabitants unevenly distributed amongst twelve ethnic nationalities, traversing eight hundred communities (Okah 2006). A majority of these people in the Niger Delta are farmers and fishermen and reside in rural communities. They make their living from the swampy land and creeks, using the proceeds and their toil to feed, shelter, cloth and educate their wards. With the advent of oil and gas exploration, their farmlands became contaminated with oil; the biological and eco-system are disturbed by noise from drilling and oil spillage. Further, laying of pipelines for oil takes a lot of forest clearing. The people are left with little or nothing to sustain their lives. Now the Niger Delta youths

with no means of livelihoods, have started attacking politicians, abducting oil workers, organizing mega bank robberies and literally making the streets unsafe. No nation can sufficiently and optimally develop without putting in place adequate security arrangement that will guarantee the well-being and protection of its citizens.

Environmental Consequences of oil and gas exploration in the Niger Delta.

Today, there are in the Niger Delta, 11 oil companies operating 159 oil fields and 1,481 wells (The Guardian 2006. 16). In a recent report titled 'Ways of using Oil boom for Sustainable Development' published by the African Development Bank (ADB) , Nigeria's total earnings from crude oil was put at \$600 billion (or about N84 trillion) in the past 45 years. That should translate to over N1.8 trillion per annum for 45 years.

For 50 years now, for the overwhelming majority of the citizens of Nigeria, particularly those of the Niger Delta, the discovery of oil is a curse. However, to the beneficiaries of the oil industry, mainly those who have been at the helm of affairs of the Federal and state power over the years, the discovery of oil is a blessing. These divergent positions call for an appraisal of the functions and/or dysfunctions of oil these past 50 year.

Before the discovery of oil, agriculture was the mainstay of the Nigerian's economy. After the discovery of oil in 1956, particularly since independence, agriculture has almost been totally abandoned by all states of the federation, all of which have come to depend, almost entirely in most cases, on the revenue from oil. Disastrous ecological degradation and environmental pollution in the Niger Delta coupled with the utter neglect by the oil companies, have contributed to impoverish the citizens of the area. Over 50 per cent of the 70,000 square kilometres of the territory has neither motorable roads nor hospitals (Guardian Newspaper 2006). There are at least three refineries and two petrochemical plants, yet fuel stations are not available in about 50 per cent of the area. Also gas thermal stations in the Niger Delta account for about 50% of Nigeria's electricity supply; but half of the community does not have electricity.

Over time, the effects of oil and gas exploration on the environment have become a cause of concern to stakeholders, government, NGOs communities and individuals. This has led the government to formulate various policies to arrest the situation and thus promote sustainable exploration activities. As mentioned earlier, the rural populace in the Niger Delta practice fishing and subsistence farming, but during floods, which lasts for over half of the year in some areas the waters are usually contaminated which negatively affects marine life; with the waters unable to sustain vegetation due to petroleum hydrocarbon pollutants. Drinking water is scarce and in the dry season, water is usually not available which also increases the risk of water borne diseases. The water related diseases exert an

enormous social and economic impact on the people. Further, the urban and rural infrastructure is poor. The inhabitants of the area also experience scorching heat daily from gas flaring which is also detrimental to the health of the people.

The environmental problems of the Niger Delta are myriad with environment, health and economic implications. They can be categorized into:

- Land resource degradation
- Renewable resource degradation
- Environmental pollution.

Some of these problems include agricultural land degradation, flooding, fisheries depletion, deforestation, biodiversity loss, water hyacinth expansion, sewage, coastal erosion, oil pollution, industrial air emission, gas flaring and mangrove degradation among others. These problems have grievous consequences and some times long term environmental problems. The development of infrastructure for oil activities for example result in physical alteration of the environment as well as the degradation of natural resources especially marine bio-resources. Given the grave implications of long term environmental problems, the intervention costs of avoiding most accidents of oil spillage are not so high and should be included in the normal operating cost of oil companies working in the region as practiced in most parts of the world.

Implications for Sustainable Development

The word 'sustainability' is defined by Wikipedia, the free encyclopedia as "a systematic concept, relating to the continuity of economic, social, institutional and environmental aspects of human society, as well as non-human environment. It is intended to be a means of configuring civilization and human activity so that society, its members and its economies are able to meet their needs and express their greatest potential in the present, while preserving biodiversity and natural ecosystems and planning and acting for the ability to maintain these ideals in a very long term" (<http://en.wikipedia.org/wiki>)

The idea of sustainable development on the other hand grew from numerous environmental movements over the years and was defined in 1987 by the World Commission on Environment and Development as "Development that meets the needs of the present without compromising the ability of the future generation to meet their own needs" (Brundtland 1987). The term "sustainable development" was adopted by Agenda 21 programme of United Nations, the 1992 Rio earth Summit. In this summit, a recommendation that all countries should produce national sustainable strategies

was made. Agenda 21 also endorsed that human beings are the centre of concern for sustainable development.

Sustainable development in the Niger Delta and Nigeria as a whole therefore should be based on a participatory and people centred approach to development planning and implementation as a strategy to lifting the region out of poverty. The planning should also comply with the recommendations in the action plan endorsed by all governments in the Earth Summit. These include:

- Water and sanitation: All governments agreed to halve the number of people lacking clean drinking water and basic sanitation by 2015. This agreement was perhaps the most positive outcome of the summit.
- Energy: Governments agreed in principle to take actions to help the poor gain access to affordable energy.
- Biodiversity and Natural Resources: Nations agreed that by 2010, the rate at which extinctions of rare plants and animals are occurring should be cut. There was also commitment to restore fisheries to their maximum sustainable yields by 2015 and to establish a representative network of marine protected areas by 2012. They also agreed to improve developing countries access to environmentally sound alternatives to ozone depleting chemicals by 2010.
- Health: Nations agreed to phase out by 2020, the use and production of chemicals that harm human health and the environment.

All these point to the fact that sustainable development implies, improving the quality of human life while living within the carrying capacity of supporting ecosystems. Amidst all the discussion about what the term sustainable development actually means and what it implies for oil exploration in Nigeria, it is worth recalling the two key points in Brundtland Commission's definition of the goal of Sustainable Development, namely

“.....meeting the needs of the present without compromising
the ability of the future generations to meet their own needs”

'Meeting needs of the present' involves the provision of the basic necessities for survival including livelihoods. The issue of oil spillage which by far constitutes the greater threat to the Niger Delta environment has made access to these necessities difficult and in fact, eroded their livelihoods. The spills involving the bursting of oil pipelines destroy homes, farmland and pollutes water that people drink and endangers aquatic life. Despite the economically strategic nature of the Niger Delta, the area is reputed to have one of the highest incidences of environmental disasters in the world (Okwe 2006).

A recent United Nations Development Programme (UNDP) report on the Niger Delta, describes the region as “suffering from administrative neglect, crumbling social infrastructures and services, high unemployment, social deprivation, abject poverty, filth and squalor and endemic conflict” (UNDP 2006). The report not only upheld that the region’s vast oil wealth accounts for more than 90 per cent of the country’s foreign earnings and provides a fifth of American supplies, it also argued that the lives of the people living in the region are yet to improve.

The report which is the first sub-regional human development report (HDR) for Nigeria to be commissioned by UNDP reiterates that the real wealth of the Niger Delta is its people. This points to the second segment of Brundtlands definition of Sustainable Development:

“.....without compromising the ability of the future generations to meet their needs.”

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his aspect involves how to make the Niger Delta perform better with regard to resource use and environmental management. Considering the loss of fertile land and other ecological changes brought about by oil exploration a credible revenue allocation that will make for rapid human development may reduce the problem in the region.

Challenge to Sustainable Development

As mentioned earlier, June 10, 2006 marked 50 years of oil exploration and production in the Niger Delta of Nigeria. During the period over \$400 billion has accrued to the Nigerian State in terms of revenue (Igbikiowubo 2006). The question then is how much of this revenue has found its way into this region for development purposes, particularly in infrastructural development and welfare of the people? This has been the bane of the crisis in the Niger Delta. Experts in international economics note:

That oil riches awards great benefits to the country, more than can be achieved through human efforts. It results in a subset of the population becoming rich and powerful and controlling the larger poorer population. The state with abundance of wealth has no incentive to protect poverty rights of the citizens. On the other hand, since citizens do not pay taxes, they have no incentive to hold the government responsible for its erratic public policy behaviour leading to unchecked abuse of power. In this case, the state and the subset of the rich people controlling the resources are apt to become corrupt. (Birdsall and Subramanin 2004)

Nigeria which discovered oil several decades ago has fared worse than many countries with fewer resources. The average Nigerian has become poorer as a result of years of oil boom and the country now finds itself locked in regional and ethnic conflicts over control of oil revenues. So overwhelming is mismanagement and rent-seeking that Nigeria has become virtually synonymous with corruption.

Nigeria also loses a lot of revenue from pipeline vandalization. About \$20 billion have been lost to pipeline vandals in the last five years (Daily Independent 2006).

Since the health of a country is a reflection of its wealth, one would expect that oil rich countries would enjoy a cogent health status and would rank high in Human Development Index (HDI). The HDI compiled by the World Bank (2004) shows that the 34 countries known to be oil rich do poorly in HDI ranking table. It is also disturbing to note that these oil rich countries have very high infant mortality rate (IMR).

The Niger Delta gets some 13% derivation from the Federal Government which the people insist is grossly inadequate. Environmental degradation and inequity in petroleum use have culminated in poverty, restiveness and human insecurity in the Niger Delta. The series of crisis caused by unemployed youths is costing the nation millions of dollars in lost revenue arising from disruption of oil production. The social impact of high unemployment in the country manifests in various criminal tendencies with its security implications and economic costs. In fact the present chaotic situation in the area is a threat to National Security and economy. Restoring the environment, reducing poverty and ensuring human security in the region is a big challenge to the overall development of Nigeria. Past administrations have ignored the provision of some basic things for sustaining lives. These include basic infrastructure that take any economy to the highest level and also helps small scale industries, a good step to creating ample employment for our youths and our alarming unemployed population. These include power, good roads, water, agriculture, sound education sector, good and efficient transport system and other things that will untie the knots of poverty in the region. Education, the development of human capital particularly influences effective and efficient use of available resources to achieve growth and development. Other basic things are the judicial system and security apparatuses which are not working efficiently at the moment. Although the laws are there to ensure an orderly society, implementation has remained a problem.

Nigeria recently has good economic policies, but these policies have to be policies of continuity. In fact everybody has to be part of governance. Apart from the policies being that of continuity, they also have to be institutionalized. Having continuity means that the foundation is laid. The younger generations can come and build on it. . The setting up of the Niger Delta Development Commission (NDDC), Economic Empowerment and Development Strategy (SEEDS), State Economic Empowerment and Development Strategy (SEEDS) by the Federal Government of Nigeria are but a starting point to development needs.

The commitment to meeting the needs (and thus poverty reduction) and not degrading the environment will reduce the social upheaval in the region which affects the world, as evidenced in the

sudden jump in the oil price in international market. This is a direct consequence of hostage taking in the region.

Challenges facing environmental planning in Nigeria

Environmental planning can be defined as appropriate arrangement of time and space for human activities within the environment, the economy and society (Ortolano 1984). Environmental planning is necessary in designing the desired future and achieving ecological sustainability (Daniel et al 1977). It includes all planning activities with the objective of preserving or enhancing environmental values or resources (Dougherty et al 1995). Environmental planning, in its arrangement of human activities, attempts to find solution to conflicts in natural resource use, to determine ecological function zones, to set environmental standards for factories and to take counter measures to protect the environment and conserve ecosystems.

Successive Federal and State governments in Nigeria have failed to use the gains from oil for national development. They had paid lip service to education and environmental planning; with the net result that capacity building remains a mirage. The level of awareness on the part of the people as regards the health implications and other consequences of environmental pollution is low.

Environmental planning helps in understanding and appreciating how ecological processes inform our understanding of economic, political and even social systems. The achievement of these objectives will have considerable effect on interested parties and stakeholders. All stakeholders should be involved during the process of environmental planning, so that their interests and opinions can be considered and represented openly and fairly.

However, there are various challenges faced by environmental planners. First, there is the need to improve procedures and methodologies for integrating environmental planning with decision making process. Again, the critical factor for environmental planning is its implementation. Only when the measures of specific engineering projects to control pollution and conserve ecosystems have been successfully put into practice can environmental planning become effective.

Today the effectiveness of environmental planning in Nigeria is in doubt because most if not all about exploration of oil and gas are left to the vagaries of the multinationals that operate in the region. However, there are some methodologies developed over time that are widely accepted by environmental planners worldwide. One of such is the land suitability evaluation methodologies developed by the United Nations Food and Agriculture Organization which have been applied worldwide for land use (FAO 1993). Others include the Decision Support System (DSS) and

Geographic Information System (GIS) which have been applied in land use planning (Benjamin 2001).

It may be problematic to apply the methods mentioned above in the Nigeria situation because it is difficult to collect the basic data required by these methods, due to inefficiency and corrupt practices by those at the helm of affairs. In addition, social and economic factors need to be taken into account. Again there are scientific uncertainties, including those regarding the cause and effect of pollutants. In the open, dynamic environments in which humans live and operate, knowledge often has limits and scientific certainty is difficult to attain. Uncertainty itself comes in many varieties, non-scientific as well as scientific. Some kind of uncertainties can be addressed and reduced; others cannot (Tickner et al 1998).

Conclusion

The paper has brought to the fore the implications of oil exploration and environmental degradation to sustainable development in the Niger Delta area and Nigeria as a whole. It explained that this has culminated in poverty, restiveness and human insecurity in the region. Other Third World oil producing States such as Saudi Arabia, Libya, Venezuela, Indonesia, Azerbaijan and Kuwait, have used their oil wealth to transform their countries into modern States. Nigeria still imports over 70% of her domestic fuel requirement as none of the four refineries are functional. Rhetorics and platitudes about solid minerals development should now be given concrete efforts, since each state of the Federation has mineral deposits, solid and /or liquid. Gas production, utilization and export should be intensified, while agriculture and any other employment generating institutions should be encouraged. It is only when the national wealth (creative production as opposed to mere extraction of petroleum) is not increasing at the rate commensurate with social and economic expectations of the people that destructive competition for existing resources ensues. A strong orientation to production and a proper environmental planning and management by the government and the people of Nigeria will contribute in no small measure to alleviating poverty and ensuring sustainable development.

Considering the connection between the problems in the Niger Delta and the world energy security, it may be right to assert that the international community is a stakeholder in this oil rich region and as such should contribute to make this region a conducive environment for business transactions and human habitation.

The Niger Delta has contributed and is still contributing and will contribute to the world's energy needs and industrial development. To achieve security and development in the region, there is need to apply a participatory and people centred approach to development which will lead the people out of

poverty, neglect, crumbling social infrastructure and high unemployment. If the existing trend is not reversed, the future will be bleak not only for Nigeria but for an oil hungry world.

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