

# **OIL AND GAS DISCOVERY IN WEST AFRICA IN RELATION TO NATIONAL DEVELOPMENT: THE INSURANCE INDUSTRY RESPONSE TO RISK MANAGEMENT CONCERNS**

## **Introduction**

Oil and gas discoveries in a number of African countries have been accompanied by an equal measure of blessing and despair to the nations concerned. The unfortunate oil-related problems in Nigeria, Africa's leading oil producing country has been an ever present reminder of what can go wrong when a potentially beneficial national asset is dissipated through mismanagement and corruption.

In a recent interview with David Ampofo, a venerable traditional leader from the Western region of Ghana, Nana Kobena Nketsia V, the Omanhene of the Essikado Traditional Area said that when he heard that oil had been discovered in his region he felt a deep sense of apprehension and indeed prayed that it would go away, but of course, that was wishful thinking. As to be expected from a wise traditional leader steeped in the folkloric wisdom of our ancestors the chief recalled a proverb in the Akan language which translates as follows: "if you find the santrofi bird in the bush and you let it go then you would have foregone blessings that would have accrued to you, but if you choose to take it home, then you would be taking home lamentations and curse".

This, ladies and gentlemen, succinctly captures the essence of the dilemma facing those African countries who have had the "good fortune" to have struck oil and gas within their borders.

## **I. Oil and Gas Discoveries in West Africa: The Impact on National Development**

Recently available data indicates that Africa accounts for 12.5% of the world's total oil production and has been the focus of intensified exploration and investment activities in the oil and gas sector during the past decade.

The Table below gives a picture of the relative levels of the proven oil reserves and production in Sub-Saharan Africa.

**Table I : Oil Producers in Sub-Saharan Africa**

Country	Estimated Reserves ( 1,000 barrels )	Production ( 1,000 barrels per day, bpd )
Angola	8,000,000	1,695
Cameroon	400,000	84
Chad	1,500,000	150
Congo Brazzaville	1,600,000	240
Equatorial Guinea	1,100,000	320
Gabon	2,000,000	230
Ghana (current)	15,000	6
Ghana (potential)	600,000 – 1,300,000	40 - 150
Ivory Coast	100,000	30
Mauritania	100,000	26
Nigeria	36,220,000	2,167
Sudan	5,000,000	472

*Source: Oxfam America/ISODEC Report*

## **Key Challenges and Opportunities resulting from Oil and Gas Discoveries**

The discovery of oil and gas and the enormous financial windfall that accrues to the respective governments brings with it attendant challenges and opportunities. Critical issues that governments of oil producing countries, particularly those in third world countries, have to grapple with include the following:

- The need to translate the oil and gas wealth into sustainable, equitable and human-centered development;
- The need to build transparency and encourage open debate among all stakeholders so as to build a broad consensus on the efficient management of the wealth resulting from oil and gas; and
- Developing appropriate pro-active measures to safeguard the security and environmental integrity of the communities affected most directly by the oil and gas operations.

The above issues have been amply discussed in numerous writings and fora, therefore I will not spend too much time on them except to briefly outline a few of the areas of challenge and opportunity.

## **The Opportunities and Benefits Accruing from the Oil and Gas Discoveries**

There are numerous opportunities and benefits that one will expect to accrue to nations endowed with oil and gas resources. These include:

- Improved balance of payments and reduced fiscal and budgetary disequilibrium in national financial affairs;
- Reduced dependence on donor budgetary support with its often stringent conditionalities;
- Increased availability of financial resources for investment in infrastructure for education, health, transportation, etc;
- The potential for the judicious and effective harnessing of the gas reserves that can help solve the perennial power supply shortages which hamper industrial development and negatively impact on the quality of life of the population in general;
- Improved rating by international rating agencies which can allow governments to borrow relatively easily on the international capital markets, and consequently diminish undue reliance on donor funding;
- Improving private sector access to credit on the local market since the crowding out effect of government borrowing would have diminished somewhat; This can be a strong catalyst for vibrant private sector growth and expansion, thus creating employment opportunities for the population at large;
- Financial intermediation can be expected to improve, which in turn can enhance access to capital for SME's which typically act as the key engine for wealth creation in most economies; and, of course;
- A vibrant economy anchored on a strong financial inflows from oil exports can provide the budgetary support for poverty alleviation programs.

## **The Challenges**

While the benefits of any oil based economy are numerous, there are equally serious challenges that governments of these countries cannot afford to ignore.

The greatest challenges for third world oil producing economies have been:

- That oil wealth often erodes democratic accountability and good governance;
- That oil wealth increases corruption and wastefulness in public spending;
- That oil wealth often exacerbate existing inequities in wealth distribution among the population;
- Social unrest, most often among affected communities in the oil and gas producing areas can create security problems for governments;
- The oil economy often can lead to the neglect of other primary export commodities as well as even food production leading to heavy dependence on food imports to augment reduced local production; the net effect may be higher prices for imported basic consumables which situation further aggravates the poverty of the vulnerable segments of society;
- Without adequate safeguards energy production can often lead to serious environmental degradation affecting the health and livelihood of the immediate indigenous populations.

## **II. The Insurance Industry Response to Risk Management Concerns of the Oil and Gas Industry**

Ladies and Gentlemen, the first part of my presentation has given a general holistic overview of the implications of oil and gas discoveries for the economies of the beneficial countries.

The next segment of the presentation will confine itself to looking at sectoral overview of the role of the insurance sector in bringing its specialized expertise in risk management to bear on the range of activities that comprise the oil and gas industry.

It is a known fact that the oil and gas industry is arguably the most capital intensive industry there is. Huge investments in technology, equipment and human resources are deployed to undertake the various phases of the oil and gas production chain which includes:

- Seismic investigation;
- Drilling of exploration well;
- Testing and evaluation of exploration well to determine the exact nature of hydrocarbons;
- Drilling of additional appraisal wells to evaluate field size/reserve and the viability of the development;
- Drilling of development wells;
- Development of permanent production installation at those locations where the more favorable hydrocarbon bearing formations can be reached;
- Transportation of the crude oil by pipeline and/or other means to refineries;
- Refining of crude into various hydrocarbon products; and
- Transportation to the markets.

In addition to these core activities in extracting the oil and gas and processing them into the final finished products, there are other support services that together constitute the broader oil and gas industry.

It is almost an understatement to say that any business that requires the investment of huge financial resources and is at the same time inherently fraught with tremendous risk of loss of property and/or life as is found in the oil and gas industry should make risk management in general and insurance in particular, an integral part of their financial planning and management systems.

In order to adequately respond to the challenge of designing appropriate risk management systems for the oil and gas industry the insurance industry need to address the following important issues:

- Identification and understanding of the nature of the hazards for which risk management solutions need to be designed;
- Identification of the assets to be insured, expertise in properly estimating potential loss exposure, as well as the type of insurance cover appropriate for the assets;
- Identification of the key parties (i.e. investors/owners, joint venture partners, contractors, sub-contractors, operators, etc.) with insurable interest in a particular oil/gas project;
- The capacity of the local insurance market, both financially and in terms of technical expertise, to underwrite what is arguably a very complicated risk to rate;
- The availability of adequate safeguards to ensure appropriate levels of local participation in all insurance cover to minimize premium flight from the local market;
- Designing appropriate training programs to transfer technology and know how to local underwriters; and

- Arranging appropriate re-insurance relationships to complement local capacity and also deepen local technical expertise.

Let us now look at these issues and the approaches the insurance industry ought to use to address them.

## **Identifying and Defining the Oil and Gas Risk**

Typically, the criteria employed to identify and define these risks require making the following differentiation, namely:

- Offshore versus Onshore risks; under this differentiation, facilities located on land beyond the shoreline are considered onshore. Offshore risks are usually classified as Marine Risks;
- Upstream versus Downstream operations is another level of categorization for the purpose of oil and gas market underwriting. Upstream operations include exploration drilling, well testing program, drilling of additional appraisal wells, drilling of development wells, and the drilling of permanent production wells. The downstream phase, of course, consists of the range of activities that process the crude into finished products. In between, is the very important phase whereby the crude is transported from production wells by tankers or pipeline to the processing plants.
- Another criteria for defining the risks is the differentiation between construction phase and the operational phase when control of and the responsibility for the facility passes from the contractor to the operator of the production wells.

Some common hazards associated with oil and gas operations include:

1. Leakage of flammable, toxic or pollutant liquids;
2. Pool (hydrocarbon) fire;
3. Flammable vapour cloud Explosion, VCE;
4. Pressure vessel explosion, PVE;
5. Boiling liquid expanding vapour explosion, BLEVE;
6. Boil-over of crude oil tanks while on fire;
7. Torch fire (flammable gas);
8. Run-away reaction (typical of oxidation reactions);
9. Toxic gas release;
10. Dust explosion; etc.

As can be imagined, any accidents involving any of these hazards can result in huge financial losses to the insureds. Hence if the underlying risks have not been adequately assessed and loss mitigation strategies, including insurance, put in place to safeguard the investment, the insureds could potentially suffer bankruptcy.

### **Designing Appropriate Insurance Products for the Oil and Gas Risks**

Various insurance products are available to cover the different hazards and risks encountered at each phase of the oil and gas business. A number of these hazards have been enumerated above. An example of the insurance cover used for the drilling phase of the oil and gas operation is the Operators Extra Expense Insurance, an outline of which is given below:

**Operators Extra Expense Insurance :-** This is sometimes called “Control of Well Insurance”. The policy form often used by the industry is the Energy Exploration and Development (EED) form. There are three main sections under this coverage, namely,

- **Section A – Control of Well** – This deals with reimbursement for actual costs and/or expenses incurred in:  
a) regaining control of any well out of control, and b) extinguishing the fire
  
- **Section B – Redril** - This deals with the reimbursement for actual costs and/or expenses reasonably incurred to restore or redrill a well insured which has been lost or otherwise damaged as a result of a (well control) occurrence. The insurers' liability shall cease when the well is restored to a condition comparable to that existing prior to the occurrence.
  
- **Section C – Pollution** – Under this coverage the insurers agree to indemnify the insured against all sums which the insured shall be lawfully or under the terms of any lease and/or license be liable to pay for the cost of remedial measures and/or as damages for bodily injury, and/or loss of, damage to or loss of use of property caused directly by seepage, pollution or contamination arising from insured wells. The indemnity also covers the cost of removing, nullifying or cleaning up seeping, polluting or contaminating substances emanating from insured wells.

The policy wording is structured to include the following:

- **General Declarations**
  - a) Covered Insured
  - b) Period of coverage
  - c) Summary of Coverage

- d) Sum Assured/Limit
- e) Deductible/Excess
- f) Premium

- **General Conditions**

- a) Rating Provisions
- b) Rating Areas
- c) Exclusions
- d) Warranties
- e) Attachment and Termination of Coverage

- **EED Endorsements (Optional)**

This coverage will also provide for endorsement for:

- a) Underground Blow-out;
- b) Making Wells Safe;
- c) Extended Redrilling/Restoration;
- d) Care, Custody and Control (of oil field equipment), etc.

Other specialized insurance coverages are custom tailored to cover hazards during the different phases of the oil and gas production chain, for example:

- a) The Constuction Phase – the coverages are for physical damage to works;
- b) The Operation Phase -- the coverages are for physical damage to production installations; and again for
- c) The Operation phase – the coverages are there to address physical damage to vessels as well as for protection and indemnity.

It is also important to note that insurance policies for the oil and gas projects are designed and structured to address the risk of loss in respect of:

- a) Company's own property as well as those of the contractor and sub-contractors;
- b) Company's own personnel as well as those of the contractor and sub-contractors;
- c) Damage to contract works for the contractor/sub-contractors;
- d) Injury to third parties;
- e) Damage to third party property;
- f) Consequential losses ( e.g. business interruption ) both for the company and contractor/sub-contractors.

### **The Capacity and Readiness of the Local Insurance Industry to Respond to the Risk Management needs of the Oil and Gas Industry**

Today, if you asked me if our national and sub-regional insurance markets have the financial capacity, the technical know how to respond to the insurance needs of the oil and gas industry within or borders, I will say emphatically, "No!". The reason for this gloomy assessment is not too difficult to identify.

First, the capitalization of our local insurance and reinsurance companies are woefully inadequate. This means that insurance regulatory authorities in our various countries need to be seriously thinking about significantly reviewing upwards the capital requirements of the insurance companies operating in their countries. Those companies that are unable to raise additional

capital should be encouraged to consolidate with others to achieve the critical mass necessary to make them competitive.

Additionally, the concept of local or sub-regional insurance pools may need to be looked into.

If such measures are adopted then it is conceivable that the local industry can remain competitive vis-à-vis their international counterparts who will be more than ready to take out as much of the premium dollars the insurance for the oil industry is expected to generate, that is, if we allow them by not putting our houses in order.

Again our insurance laws may need to be critically reviewed to incorporate stringent requirements for local content and participation in all oil and gas insurance contracts.

If these remedial measures are not urgently addressed, then the countries in the sub-region will see the worsening of the perennial problem of premium flight from our markets.

## **The Overseas Insurance Markets for Oil and Gas**

It is expected that even with significantly improved capitalization of the local insurance companies the local industry can benefit from collaboration with experienced players in the oil and gas markets overseas.

These overseas markets can over time help nurture our local markets through well structured relationships that emphasize technology transfer and building capacity.

The international market is dominated by underwriters associated with:

- a) Lloyd's of London;
- b) Major European insurers and reinsurers such as Munich Re, Swiss RE, SCOR, Hannover, Axa, etc..

There are also other specialty oil and gas underwriters based in Singapore, Middle East, Australia and Bermuda.

Indeed, a very common practice for major companies in the oil and gas industry is the use of special purpose captive insurance companies to provide risk management solutions for their oil and gas operations.

## **Conclusion**

It is obvious that the discovery of oil and gas in our sub-region has raised expectations of great financial bonanza for our sputtering economies.

However, these expectations can only be realized if our governments, urged on by civil society, take proactive measures to put in place structures that will ensure prudent, transparent and efficient management of the huge resources that will flow into our national coffers.

Let's always remember that these are not renewable resources, and that if we dissipate the proceeds flowing from the extraction of these natural resources now, then we would have done grave disservice to the future generations of our respective countries.

The insurance industry, in the respective countries, and at the sub-regional level, have a window of opportunity to re-organize and re-invent themselves to fully participate in what promises to be an exciting insurance market place for the foreseeable future.

The future is going to be bright for those that innovate and proactively prepare themselves to deal with the challenges ahead.

**THANK YOU**