

# REPOSITIONING TERTIARY EDUCATION FOR NIGERIA'S OIL AND GAS SECTOR: THE IPS ELF PETROLEUM NIGERIA LIMITED STRATEGY, 2002 - 2005

*Dr. A. O. I. Gabriel*

## Abstract

The oil and gas sector has since inception in the 1950s largely depended on expatriates for its technical operations in particular. The need for indigenous labour force for both middle and high level technical and administrative activities as well as a crop of trainers for sustainable human capital development in the upstream activities has necessitated the establishment of the Institute of Petroleum Studies at the University of Port Harcourt under the auspices of Elf Petroleum Nigeria Limited, a subsidiary of the Total Group. This initiative is examined in terms of its philosophy, structure, achievement and prospects. High-level manpower with functional knowledge for a knowledge-based economy has been produced and absorbed. It is plausible that there will be a need for expansion in both number of students and curriculum as the oil sector expands in both Nigeria and other parts of Africa.

## Introduction

The hue and cry about the quality of education, especially in science and technology in Nigeria's tertiary institutions has generated a lot of concern among the citizenry and particularly employers of labour in industries. It is partly for this reason that some companies have either established retraining programmes to improve on the quality of the education of some Nigerian graduates and to meet the manpower needs of the industries. The Shell Intensive Training Programme (SITP) by Shell Petroleum Development Company is a typical example. Again, some organizations have on the other hand either assisted or collaborated with some Nigeria's tertiary institutions in boosting quality education by providing equipment or lecturers in areas where desired expertise is lacked. Nigeria's oil and gas sector has since the 1970s sustained the nation's economy and has made the Niger Delta, the major source of oil and gas, a critical region of concern for the interaction of diverse peoples, Nigerians and other Africans, Americans, Europeans and Asians. The dynamics of oil and gas production vis-a-vis the indigenous peoples of this region have generated some form of hostility partly because of the feeling of marginalization in employment. Different strategies including kidnapping of expatriate workers, pipeline vandalization, peaceful demonstrations, and so on, have been adopted in response to this action. It would appear that oil and gas companies have therefore articulated programmes and assistance projects as proactive measures to develop a crop of potentially employable youths with relevant knowledge and skill needed in the oil and gas sector in order to assuage and mitigate militancy and other negative responses adopted by the Niger Delta youths.

This paper examines the role of ELF Petroleum Nigeria Limited (EPNL) in improving the quality of engineering education in Nigeria with the view of repositioning tertiary education in professional and academic engineering theory and practice.

### EPNL and the Development of Tertiary Education in Nigeria

EPNL's venture into the development of Nigeria's tertiary education stems from the Total Group's perception of Corporate Social Responsibility (CSR). This concept implies that EPNL's operations must align with the expectations of the host communities and countries for sustainable development. Thus, the Niger Delta where Total Upstream Company, EPNL operates is to benefit more as the host and for ameliorating the hardship/difficulties that the terrain partly causes. While tertiary education is the focus of this discourse other social benefits include provision of electricity, water, roads, jetties, bridges, hospitals, accessories that facilitate transportation and communication. EPNL's scholarship scheme has, for about twenty six years facilitated the study of natural and applied sciences, engineering, medicine, law, environmental and management sciences as well as agricultural related disciplines in Nigerian Universities. For a fair spread and more benefit to host communities, there is the community scholarship scheme for persons nominated by the community and is based on the Memorandum of Understanding as follows: post-primary 2,505; post-secondary 1,480; post-graduate (local) 147; post-graduate (foreign) 41; and PTI (Petroleum Training Institute), 80. There is also the National Scholarship Scheme which started in 1998/99 academic session that is open for competition to all Nigerian undergraduates in their 1<sup>st</sup> and 2<sup>nd</sup> years who are studying science related courses. In this way indigent students are assisted and access to education is provided while academic excellence is encouraged. In 2005, for example, the following number of persons were awarded the community scholarship.

**Table 1**

Type of Scholarship	Delta State	Rivers State	Akwa Ibom State
Post Secondary	150	820	650
Post Graduate (Local)	10	71	50
Post Graduate (Foreign)	7	23	15
Total	167	914	715

Source: Partnership, EPNL, No. 2, January - March

The disparity in number of scholarship awards depends on the state that has the highest number of oil exploiting locations. Rivers State with the highest operational locations therefore benefits more than Akwa Ibom and Delta States which follow respectively. Another area of intervention for repositioning tertiary education is in the provision of modern equipment and laboratories for teaching and learning. Over the years, lecturers in Nigeria's tertiary institutions have been challenged by this lack of equipment and other facilities in both research and teaching. It is for this reason that EPNL's donations to the following higher institutions in 2006 can be appreciated:

- (1) Science Laboratory Equipment worth N5 million naira to Akwa Ibom State College of Arts and Science, Nung Ukim.
- (2) 5 million naira Library materials to Delta State Polytechnic, Otete-Oghara.
- (3) 5 million naira Educational materials to Delta State University, Abraka.
- (4) Computers to Federal College of Education, Omoku,
- (5) 5 million naira V-Sat and Internet Facility to Rivers State University of Science and Technology.

From these actions it can be rightly deduced that EPNL, which started operations in 1962 in the Niger Delta is now poised to actively participate in repositioning tertiary education in Nigeria. The sponsorship of the Institute of Petroleum Studies (IPS) at the University of Port Harcourt caps the evidence.

### **Institute of Petroleum Studies: Philosophy**

Petroleum Studies is at the core of petroleum exploration and exploitation in any part of the world, as such, the establishment of the Institute of Petroleum Studies (IPS) in the University of Port Harcourt is remarkable in the grooming of a crop of potential labour force with relevant professional training for the oil industry as well as persons who would be petroleum engineering Educators for sustainable development of high quality petroleum engineers especially for the technology dependent job market.

Total, the group to which EPNL is a subsidiary has been a keen participant in the upstream sector of Nigeria's oil industry for over half a century and this underscores the establishment of IPS in the University of Port Harcourt, under the auspices of EPNL/NNPC (Nigeria National Petroleum Company) joint venture. Thus, in collaboration with the French Petroleum Institute (IFP) in Paris, France, Nigerians have the opportunity of studying for an internationally acclaimed and reputable post-graduate degree in petroleum engineering within Nigeria.

Indeed, Total's corporate objectives of high productivity and profitability, technical, communication, team and Health Safety and Environment (HSE) skills underlie the company's mandate/charter to the University of Port Harcourt (Uniport) for the IPS programme.

According to Total (2005:18), the charter demands the "pursuit of academic excellence advancement of knowledge and community service through quality teaching, lifelong learning, socially inclusion, and strengthening of civil society".

The question why IFP was selected for this collaboration can be partly explained by the fact that Elf is a French Company and has implicit confidence in IFPs quality of academic and professional standard in petroleum engineering. IFP establishment dates back to 13<sup>th</sup> June, 1944. With initial bias in research, IFP has extended its services and expertise to training, exploration drilling - platform production, refining - petrochemicals, engine construction and documentation. Thus, the issue of international co-operation is underscored. There is IFP collaboration with petroleum institute's in Oran (Algeria), India and Nigeria. India's association with IFP started in the early 70s when IFP Technology was adopted in the construction of the primary and secondary units at India's Haldia refinery's fuel block. Similarly, many Indian oil engineers have undergone training at IFP school. More specifically, in 1985, the first heavy-residue catalytic cracking unit (R2R) was developed by IFP and Total for Idemitsu Aichi refinery in Japan. In 1991, IFP launched the Hyvahl residue conversion process in the United States and manufactured a new "clean" two stroke car engine that meets the strictest anti-pollution standards. Since 1954, about 800 training sessions are held each year in her training school in France. But from 2000, over 50 percent of the trainees have been foreigners (IFP, 2004: 1 - 3). Therefore, it is not surprising that on 1<sup>st</sup> January 2004, IFP and the IFP - School created a new subsidiary, Ecole Nationale Supérieure du Pétrole and Ecole Nationale des Moteurs (ENSPM, both affiliated with IFP) called ENSPM Formation Industrial Training, to meet the training needs of managerial, engineering and technical staff from the oil, gas, petrochemical, chemical and automotive industries.

Academic excellence and the advancement of knowledge have unequivocally become very challenging at virtually, all spectrum of Nigeria's educational system. Therefore, the involvement of lecturers from IFP, University of Port Harcourt, visiting Professors from other Nigerian Universities, staff from Total Group and other oil companies in the academic programme would ensure that assessment of course and project work are free of bias. Again, with the provision of relevant equipment and other infrastructure, quality assurance is guaranteed. In sum, these steps serve as a pointer to the production of what El-Rufai (2006:10) refers to as functional knowledge and which gives rise to the term "knowledge economy". The Niger Delta region, the heart of oil production in Nigeria, desperately requires functional knowledge as a part of the strategies to mitigate youth militancy in the region. Oil company workers, expatriates in particular seem to have suffered most in this regard as they have been the target for kidnapping in the past three years and the spate seems to have been induced by huge sums of money paid for their ransom. For example, three Filipino, one Belgian, a Moroccan, a Briton and three others were kidnapped in August 2006 (Ebiri, 2006: 1 and 4). The sum of ten million naira per person according to Etim and Ebiri (2006:2) is said to be demanded by the youths militant captors before the release of the expatriate oil workers under hostage. It is believed that knowledge, which is the most important factor for economic development in the twenty-first century, can be provided to forestall youth militancy in the Niger Delta. This is because they would become employable in the core activities of the oil sector and thereby

appreciate and protect the industry.

Advancement of knowledge, another value in the IPS charter to the University of Port Harcourt is directly linked to Research and Development and both of which are interdependent, as well as promote community service. Quality education is also dependent on Research and Development (R&D) which since the 1980s had gradually plummeted to the point that most of the Universities as Okebukola (2004:9), reiterated do not have money to buy reagents or even maintain the equipment. However, with the implementation of Direct Teaching and Learning Scheme (DTLS) through which funds are provided for reagents and other consumables for teaching and learning as well as the launching of the digital or virtual library by the National Universities Commission (NUC), it is plausible that intensive and extensive R and D can be resuscitated in the tertiary institutions.

Regretably, the accreditation exercise of 2005 still reflected the dearth of qualified academic staff and learning facilities (Daily Sun Editorial 2006: 8) as some challenges of Nigeria's tertiary-institutions. These two indices are also reflective of factors inhibiting R and D. In this regard, the IPS can be better appreciated because apart from providing local content in graduate training.

continuing education and applied research development for sustainable human capital development, capacity enhancement for sustainable development of the petroleum industry would be promoted. The research and development content is guaranteed because of the staff quality, training focus and adequate funding by the Total Group. However, a source of concern is that the Total Group intends to gradually reduce its annual financial input to the project to the tune of about 1.5 million dollars for recurrent expenditure. This, it will achieve by not bearing the cost of students' sponsorship as is the case at present. The question then is whether it would not further reduce its financial input in other areas and consequently impinge on the quality of education and research? Generating knowledge through R and D can give Nigeria a competitive advantage in the oil sector vis-a-vis other non-European and American nations in the oil industry. In fact, it is this stance, that is, heavy investment in R and D, higher education and Information Communication Technology (ICT) by the Organization for Economic Co-operation and Development (OECD) countries that has facilitated their knowledge/economy or knowledge that boosts their economy. Again, with the expansion of Nigeria's field of oil exploration and exploitation in the Gulf of Guinea, both human capital development and R and D in petroleum studies become very crucial. Thus, it is plausible that the IPS high-level academic and practical education can produce adequate manpower for on shore and deep offshore operations of the oil industry.

### **IPS: Structure and Prospects**

The IPS admits first-degree graduates with a background in any of the engineering disciplines for its one-year programme leading to the award of a Master of Science (MSc) degree in petroleum engineering and project management. In addition, students are also presented for the International Well Control Forum (IWCF) Certificate. From its inception in 2002, when Total developed the idea of establishing the IPS, an impactful project with a positive legacy on the people and Nigeria served as the driving force. The temporary structure housing the programme was therefore set up in 2002, while the structures and facilities at the permanent site within the University of Port Harcourt arc still being constructed.

The governing structure (the academic programme and management inclusive) according to Addeh (2005:3) includes:

1. A Board of Trustees (9 persons: An Independent Chairman, UNIPORT, IFP, TOTAL, NNPC);
2. A Governing Board (10 persons: TOTAL, UNIPORT, IPS, NNPC);
3. An Advisory Committee (IFP, UNIPORT, TOTAL, NNPC, other oil companies)
4. An Academic Committee (UNIPORT, IFP, Lecturers from TOTAL STAFF, other oil companies staff and visiting Professors from other Universities in Nigeria).

"The lecturers are experts in various disciplines such as, General Engineering, Reservoir Engineering, Drilling/Completion, Production Engineering, Oil and Gas Fields Development, and so on. This structure shields the programme from intermittent closures occasioned by strike action embarked upon by lecturers and sometimes students. Student intake is relatively small, only twenty per session since the first batch commenced studies in November 2003 for the 2003/2004 session. The integrational feature of this structure commits each stakeholder into ensuring that it plays its role for its integrity and for the stability of the programme. For example, beyond financial support, staff of the oil industry (within and outside the country) is actively involved in curriculum development, presentation of seminars and field visits, admission process and profiling. (Ajienka et al, 2004: 1). There is also an in-built mechanism for monitoring; feedback and evaluation as each sub-group from 1 to 4 interact. .

The first batch of IPS graduates gained employment in EPNL, NNPC and other oil companies and this is an action that would benefit the whole oil and gas sector in Nigeria as the programme consolidates. In the 2003/2004 session EPNL sent two of its staff for the IPS training. In the 2004/2005 session, five of her staff were also trained. The Petroleum Training Development Fund (PTDF), a government agency that sponsors training of Nigerians for the petroleum industry intends to send its trainees to IPS in addition to those sent to IFP and other institutions outside Nigeria. With the reduced cost at IPS and quality education with exposure to technologies and modern trends in petroleum engineering it is plausible that more people will be trained in this autonomous world-class institution. Students are to show evidence of sponsorship as from the 2006 batch so that Total which has borne the bulk of the capital and recurrent expenditures since 2002 would be relieved. IPS complements at a higher level, the role of the petroleum Training Institute (PTI) at Effurun, near Warri in Delta State, which provides middle level manpower for the oil and gas industry. If its change in status to a campus of the proposed Federal University in Delta State materializes then IPS might in addition have the challenge of also producing middle level manpower for the oil and gas industry. However, the idea has been vehemently opposed by stakeholders, the NUC, PTI students, Natural Gas Senior Staff

Association of Nigeria, and workers operating under the aegis of the National Union of Petroleum and Natural Gas Workers. Their major reason for opposing the change in status of the PTI is to ensure that Nigerians trained there, occupy and control the middle level manpower and thereby reduce dependence on expatriates. Certainly, local content in sustainable human capital development for the oil industry could be guaranteed through this strategy, (that the local content aspect is maintained in order to reduce dependence on expatriates). In fact, Oke (2006:23), noted that the Institute required proper funding and equipping to enable it perform its functions properly and compete favourably with other institutes in other oil producing countries. This change in status of PTI is to provide a temporary campus for the establishment of a Federal University in Delta State. This intention is the usual approach that the Federal Government (FG) adopts. Thus, because there is a need for specialization of staff for the expanding oil sector, the PTI should be strengthened but not disarticulated. The F.G. should muster both political will and sincerity of purpose in fulfilling its promise to the Delta people by developing the University from scratch on a permanent campus. There are many departments of petroleum engineering in Nigeria's Universities yet the PTI and other institutes have a vision and thrust that underscore their existence and should therefore not be tampered with so that they fulfill their goals.

### **Conclusion**

As the oil and gas sector expands its activities there definitely would be the need for staff development to cope with the demands of the oil industry. The active participation of Nigerians, particularly the Niger Delta people becomes a sine-qua-non so that in diverse ways and at various levels they participate in the oil politics of the nation. For the oil companies, the need to impact the society, albeit, through human capital development is a legacy worth undertaking. This again, provides opportunity for increasing partnerships, linkages, more financial input and more service to other sectors in need and for deriving fulfillment from attaining a goal. Indeed, given the bright prospects of such venture, the IPS would be faced with world challenge of students' placement for a world class quality education in petroleum engineering. Diversification into other areas of oil sector professional needs is a future curriculum challenge given the unfolding innovations in nanotechnology and other technologies relevant to the oil industry. Ultimately, it would be expected that this partnership should generate a franchise agreement whereby IPS trainers would deliver IFP Training courses for other types of programmes.

The EPNL initiative in high-level manpower development for the sustainability of the oil sector should be emulated by other oil producing and servicing companies interested in education for the industrial development of the nation. If most industries assist tertiary institutions in this way there would be a sustained crop of indigenous functional and knowledgeable labour and productive force to drive, and stabilize Nigeria's economy in this twenty-first century.

### **References**

- Addeh, J. (2005). IPS: Providing World Class Education Locally. *Partnership: A Quarterly Newspaper on Sustainable Development*, EPNL, No. 1, October to December 2005.
- Ajienka, L.A. et al (2004). Human Capital Development and Capacity Enhancement through International Collaborative Graduate Programmes. [http://www.searchanddiscovery.net/documents/abstracts/2004 regional west africa/abstra](http://www.searchanddiscovery.net/documents/abstracts/2004%20regional%20west%20africa/abstra). Daily Sun Editorial (2006). Accreditation Hurdles in Universities Daily Sun Newspapers, Friday June 30, 2006.
- Ebiri, K. (2006). Militants Free Five Hostages, Abduct Four Others. The Guardian Newspaper, Tuesday, August 15, 2006.
- Elim, W. and Ebiri, K. (2006). German Hostage Pleads for Freedom. The Guardian Newspaper, Thursday, August 10, 2006.
- I.F.P. (2004). IFP Highlights. <http://pme-pmi.ifp.fr/IFP/en/ifp/abQ8.html>
- Oke, B. (2006). Oil Workers Restate Opposition to New PTI Status. The Punch Newspaper, Monday, August 14, 2006.
- Okebukola, P. (2004). A Journey Worth All the Effort: Special Feature on NUC. Newswatch Magazine, July 5, 2004.
- Total (2005). Uniport Honours Desmarest with Doctorate Degree in Science. Focus Nigeria: A Quarterly Magazine, EPNL.
- Total (2006). EPNL Donates Educational Materials and EPNL Scholarship Scheme. *Partnership: A Quarterly Newspaper on Sustainable Development*, EPNL, No.2, January to March, 2006.

