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Research and Sustainable Development By Agip And Shell In Nigeria: Overcoming Exclusion, Strengthening Inclusion

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Abstract
Guided by Utilitarian Theory of Ethics, Social Environment Theory as well as one objective, the Study investigated the activities of AGIP and SHELL in Nigeria with respect to discharging their corporate social responsibilities in their host communities and by extension enhancing sustainable development. The research design chosen is a combination of the use secondary data, case study and model formulation. Specifically, the dynamic distributed lag model was adopted in the study. The dependent variable is Sustainable Development (SD) intervention proxies by the level of socio-economic expenditure in period t. The independent variables are lagged values of annual oil production, estimated profit, trend of community incidence or crisis, crude oil deferment trend due to community problems and annual volume of oil spilled. Crude oil production in the Niger Delta has resulted in extensive environmental degradation and impoverishment of the local host communities. On the other hand, the multinationals cart away the profits without addressing the negative externalities created by them. Thus, this paper focuses on the behavioural determinants Nigerian Agip Oil Company (NAOC) and theoretical determinants of SHELL in their attempt to reduce the divergence between private costs and social costs following widespread agitations, youth restiveness and militancy in oil producing areas of Nigeria. The findings of this study reveal that crude oil production represents the primary reason for the involvement of the NAOC and SHELL in community development. However, the degree of involvement is questionable. Among others, this study shows that the profit streams generated by the international oil firm have no significant impact on its level of community development activities in the Niger Delta.
Keywords: Research, Sustainable Development, Multinational, Degradation.

1. Introduction

Research means to search again and to take a cursory look on a phenomenon of interest (Unyimadu, 2005). The phenomenon to be investigated in this paper is research and sustainable development (SD) by Nigerian Agip Oil Company, a Third World Multinational Oil company (NAOC), operating in the Niger Delta Area in Nigeria. Sustainable Development means satisfying the needs of the present generation, without jeopardizing the needs of the future generations, (Jhingan, 2008).

Development is the increase in the given socio-economic condition from a lower state to a higher state,(The Bendavieds, 2004). Sustainable Development (SD) is development that is long lasting and provided enough of what needs are satisfied in order for life to go on comfortably in the society (Hornby, 2010). It entails the use of natural products, provision of infrastructure and catering for societal welfare in such a way that does not harm the environment.

Unfortunately, the crude oil and gas operations of the multinational crude oil and gas producing companies has led to air pollution, environment degradation and destruction of the agricultural ecosystem (Eboneime and Osirike, 2009). As an antidote to the large scale destruction of the ecosystem and the consequent intensification of the poverty problem in the Niger Delta, multinational oil firms have, over the years, rolled out a series of projects of poverty reduction interventions in a bid to uplift the socio-economic status and living standards of host communities. However, the general view is that the level of corporate social responsibility (CSR) of oil multinationals is inconsequential. These firms believe that CSR is not their duty but they fail to take into

cognizance the externalities of their operations which create a serious divergence between social costs and private costs.
This paper is a case study of the poverty reduction interventions of the Nigerian Agip Oil Company (NAOC) – a company that has been in Nigeria since 1962. NAOC is the operator of a joint venture involving the Nigerian National Petroleum Corporation (NNPC), which holds 60%, NAOC 20% and Phillips 20% of the shares. As it was in the case of Shell Joint Venture, the partners fund the operations in proportion to their shareholding. Other subsidiaries of Agip International B.V. in Nigeria include: Nigeria Agip Exploration Limited, Agip Energy and Natural Resources (Nigeria) Limited and a 10.4% shareholding in the Nigeria LNG Limited. The above companies in addition to the Saipem Group and Snamprogetti Limited, all belong to or are affiliated to the Eni Group of Italy.
Agip operates in all the four states of Bayelsa, rivers, Delta and Imo. The first set of community development projects were specific initiatives – which included construction of roads, bridges, jetties, sewage/drainage networks, water treatment plants, urban/rural electrification, supply of boats and ferries for transportation of people and goods. In the course of time, NAOC's community development approach has expanded, no doubt, following the increasing wave of youth restiveness in the Niger Delta. NAOC's socio economic initiatives also metamorphosed from the early phase of community assistance to an integrated programme aimed at promoting sustainable community development. This sustainable development drive has the objective of developing integrated project, tailored to local needs with the direct involvement of host communities in their identification, implementation and sustainability in the long run.
Overcoming exclusion of the members of the host communities has been achieved by embarking on community development projects rather than community assistance projects. This entails getting the members of the host communities involved in deciding which projects would satisfy the needs of the people in the host communities before signing the Memorandum of Association with the community development unions. This approach was a paradigm shift initiated by Shell starting from 1997 as the biggest multinational crude oil and gas producing company operating in the Niger Delta Region of Nigeria (Shell, 2010). When exclusion is successful, exclusion could then be strengthened.

1.1 Objective of the Study

The primary objective of the paper is to attempt a formulation of a behavioural model to study the determinants of the SD initiatives of NAOC and theoretically studying what harness Shell involving the impact of these determinants is important for corporate behavioural analysis. The research design chosen is a combination of the use of secondary data, case study and model modification.

2 Historical Background

Oil exploration started in Nigeria in 1908 with the discovery of bitumen deposits in some parts of the then Western Region specifically in the part now called Ondo State. However, documentation of minerals was reported some five years earlier in 1903 (NNPC, 2000). Shell Petroleum Development Company (SPDC) Nigeria Limited was originally known as Shell D'Archy. In 1972, Shell commenced marketing of oil products in Nigeria. Shell D'Archy commenced geological reconnaissance in 1937 and was granted an exploration licenses in 1939. In September, 1951, the first well was drilled by Shell D'Archy at Ihuo. In January 1956, the first successful well was drilled by Shell D'archy at Oloibori. In February 1958, the first shipment of crude oil was done from Nigeria (SPDC, 2001). By 1961, Texaco had been involved in oil exploration and exploitation in Nigeria. The Nigerian Agip Oil Company Limited (NAOC), a joint venture with NNPC (60%), NAOC (20%) and Philips (POCC) 20% with NAOC as the operator was incorporated in Nigeria in 1962. Chevron Nigeria Limited, the operator of the NNPC/chevron Joint Venture discovered Nigeria's first successful offshore oil field called Okan in 1963. In 1964, Elf Petroleum Nigeria Limited made its first discovery at Obagi and started oil production in 1966. In the same year, the Nigerian Agip Exploration Limited was incorporated in Nigeria and it operated a production sharing contract with the NNPC on deep offshore blocks. In 1969, Texaco's manufacturing and marketing business was incorporated (NNPC, 2000). Most of the multinational oil companies operating in Nigeria had 100% equity in their operations up till 1973. There was no active participation by the Federal government in the marketing of crude oil until then. Prior to 1973, all Nigerian crude oil was marketed by the oil producing companies through their integrated system using transfer pricing (NNPC, 2000). Government's interest in the oil industry was handled by a number of government departments including the Hydrocarbon Section in 1963 and the Department of Petroleum in the Ministry of Mines and Power in 1970. Even though the Nigerian National Petroleum Corporation (NNPC) was formed in 1971 mainly to market Nigerian crude oil, Government's direct involvement in the marketing of crude oil did not start until 1973. That was when the government started having its own equity crude which it would market directly following its acquisition of participation interest in the operations of the oil companies (NNPC, 2000). In August 1984, an Agreement was signed consolidating NNPC/Shell joint venture arrangements. In January 1986, a memorandum of understanding was signed between NNPC and Shell which was revised in 1991 (SPDC, 2001). The Government initially sold back the bulk of its participating oil to the foreign oil operating companies through a buy-back arrangement. Under this arrangement, the Government sold back 50% of its equity crude oil to other countries at a concessionary price to cushion the effects of its participation and to enable the companies meet previous long term commitments. It sold another 25% of its oil to the companies as option oil. The remaining 25% was sold to third party customers, i.e. those buyers with no concession or stake in the country (NNPC, 2000). In August 1984, an agreement was signed consolidating NNPC/Shell Joint venture arrangements. In January 1986, a memorandum of understanding was signed between NNPC and Shell which was revised in 1990 (SPDC, 2001). As at 1991 and some few years before then there was an increasing public and government awareness of the impact of SPDC activities on the community and the environment. This called not only for a continuing effort on traditional public and community affairs activities but an expansion into a more proactive cooperation planning with entities likely to be affected by SPDC operations and developments (SPDC, 1991). In 1993, the social responsibility focus of SPDC was to conduct its business in a socially acceptable manner consistent with the laws, regulations and established company policies, principles and guidelines. In February of the same year, the Shell Nigeria Exploration and Production Company, SNEPCO, was established to operate two deep water and three onshore licenses under production sharing contracts signed with NNPC in April of that year. SNEPCO also had interests in three other deep-water licenses, two of which were operated by Agip and one by Esso.

The first exploration well, Bonga was drilled in 1995/96. This resulted in the discovery of the Bonga field, the premier deep water field in Nigeria. In September 28, 1995, the Liquefied Natural Gas (LNG) final investment decision was signed and in 1996, the construction of the LNG facilities commenced on site. In 1998, Shell Nigeria Gas (SNG) was incorporated to distribute gas to the local industrial market in cooperation with Nigerian Gas Company, a subsidiary of NNPC. In 1999, the $8.5 billion LNG train 3 integrated oil gas project (NLNG, SPDC, JV, SNEPCO) was launched (SPDC, 2001). Today, there is a department of public and government affairs in SPDC headed by a manager.

3 SPDC Sustainable Development Strategy

Sustainable Development is about meeting the needs of the present generation without compromising the ability of future generations to meet their own needs' (SPDC, 2001). It is a positive concept which builds on and balances the three key elements namely economic, prosperity, effective environmental management and social responsibility. This can also be expressed as 'people, planet, and profit'.

SPDC's Sustainable Development (SD) strategy defines how the company aims to manage its activities in line with SD principles. The key SD challenge for the company is explicitly defined just as are the organizational, team and individual roles and responsibilities. This strategy was developed using the Shell Group Sustainable Development Management Framework and the Shell Exploration and Production Sustainability Principles (SPDC, 2001). As understood in Shell, if development is to be sustainable, the economic environmental and social aspects must be balanced. Long term Sustainable Development can only be built on the foundation of economic prosperity, effective environmental management and social responsibility. True SD is visualized as a global societal goal that can only be achieved through all. Business firms have a role to play and have a responsibility to contribute to all aspects of development. To achieve this objective, companies will have to approach their businesses in a different way from the old methods to enable them incorporate sustainable thinking unto their decision making processes (SPDC, 2001). SPDC has committed herself to working towards a sustainable future by working with communities and stakeholders in this effort. Since 1993, the company driven by social conditions in Nigeria has gone beyond its core business, taking a wider role in community development. SPDC desires to be a good corporate citizen and so attempts to respond positively to the harsh and difficult political, social and economic challenges in Nigeria. She has taken a leading role in the Vision 2010 Economic Programme including taking part in economic summits, initiative which has the objective of an open and transparent environmental management and community development programmes (SPDC, 2001: 4). The challenge in the future years is to fully integrate and embed SD principles in the business. This requires the commitment and involvement of all staff. SPDC's approach is to first educate and raise staff awareness utilizing the significance work already done. She ahs began to restructure her activities to fit into a more sustainable framework (SPDC, 2001). In line with the Sustainable Development Management Framework, the company will seek to demonstrate leadership by identifying opportunities while coping with threats of sustainable strategy, implementing actions, monitoring, measuring, auditing, defining, reporting and reviewing performance (SPDC, 2001). So Sustainable Development has to be planed, organized, led and controlled. So the effective management of SD is very important. The key steps earmarked to be taken in the year 2001 and beyond will focus on the following areas:

1) To continue to raise awareness of sustainable development thinking across the company, while reaching out to the stakeholders.
2) To prepare Annual Business Plans and specific, identified, SD elements while seeking to align existing plans with sustainable principles;
3) To continue to drive and programme for sustainable community development;
4) To develop an SD check list adaptable for use by managers and supervisors in the key business Areas;
5) To develop key performance indicators with internal stakeholders;
6) To communicate to staff on the SD programmes and establish an SD Bulletin; and
7) To maximization of the individual's self-interest is also known as the theory of ethical egoism fully integrate SD into the business (SPDC, 2001: 2-3).

3.1 Theoretical Framework

This study is anchored on two set of theories namely Utilitarian Ethical Theory and Social Environment Theory. The utilitarian ethical theory is founded on the ability to predict the consequences of an action. To a Utilitarian, the choice that yields the greatest benefits to the most people is the choice that is ethically correct,(Ridley,1998; Penslar,1995). In other words, the theory seeks as its end the greatest "good" or ("utility") for the greatest number and posits that one should tally the costs and benefits of a given decision and follow the decision that provides for the greatest overall gain. Jeremy Benthan (1748-1732) and John Stuait Mills (1806-1873) were the chief intellectual forces in the development of utilitarianism. This theory might explain the slow action or inaction on the part of the federal government in ensuring strict enforcement of oil policies that might require oil multinationals to go a step further in alleviating the plight of host communities. This is because the greater number of Nigerians benefit from the gain of oil wealth as against the lesser number who bear the severe social costs (see Hartman, 2002:6 and Ikein, 1990:42-48).

The social environment theory has as its central tenet that the enterprise reacts to the total societal environment and not merely to markets. Thus, the most important characteristics of the theory is the explicit recognition that corporate body responds to political pressures, public opinion, the demands of stockholders, the urgings and threats of legislatures and bureaucrats, as well as to market forces. Jacoby (1973:195) asserted that, "...non-market forces... have induced large companies to allocate resources to social purposes". He continues, "...corporation made the allocations basically to enhance their profits in the long run or to defend existing profits against erosion." The above theory is in tandem with the theory of enlightened ethical egoism (enlightened self-interest) in which businesses or corporations considers the long-range perspective of others or of humanity as a whole. Hartman (2002:10) explained this by nothing "... that it is important to the individual that the world is a 'good' world; therefore, the individual may have a self-interest in curbing pollution or in community projects, even though she or he may not individually and personally benefit from the decision."

3.2 The Behavioural Model

The dynamic distributed lag model of the following type was employed because the values of the independent variable in the previous period are expected to influence poverty reduction interventions (the dependent variable) in the current period (see Mordi, 2005 and Koutsoyiannis, 1977:294).

$$\mathbf{P_t = F\,(E_{1t-1}, E_{2t-1,} E_{3t-1}, E_{4t.1}, E_{5t-1}, G_2, D_2, N_2)} \quad \text{.................} \ \mathbf{(1)}$$

Where,

P_t = Poverty reduction interventions proxied by the level of socio-economic expenditure in period t.
E_{1t-1} = Lagged value of annual oil production.
E_{2t-1} = Lagged value of estimated profit.
E_{3t-1} = Lagged value of trend of community incidence or crisis.
E_{4t-1} = Lagged value of crude oil deferment trend due to community problems.
E_{5t-1} = Lagged value of annual volume of oil spilled.
G_2 = Dichotomous variable for gas flare.
G_2 = Dichotomous variable for 13% derivation fund paid to oil producing states.
N_2 = Dichotomous variable for the establishment of Niger Delta Development Commission NDDC.

The functional relationship in equation (1) represents the general form of the model. The expression signifies that a mapping or transformation is possible, but the actual rule of mapping is not made explicit. Thus, it is necessary to hypothesize the specific form of the model that would reflect or approximate the true nature of the relationship between the dependent variable, P_t and the independent variables (Chiang, 1974:19-35).

The general model form could be written more specifically as:

$$\mathbf{P_t = \alpha_0 + \alpha_1 E_{1t-1} + \alpha_2 E_{2t-1} + \alpha_3 E_{3t-1}, + \alpha_4 E_{4t-1} + \alpha_5 E_{5t-1} + \alpha_6 G_2 + \alpha_7 D_2 + \alpha_8 N_2 + e_t}$$

…………………………………………………(2)

Where α_0, α_1, α_2, α_3, α_4, α_5, α_6, α_7 and α_8, are the coefficients of the model.

Note: The symbol alpha (α) is the first letter of the Greek alphabet.

From equation (2) above, the *a priori* expectations are:

$$\frac{dP_t}{dE_{1t-1}} > 0, \frac{dP_t}{dE_{2t-1}} > 0, \frac{dP_t}{dE_{3t-1}} > 0, \frac{dP_t}{dE_{4t-1}} > 0, \frac{dP_t}{dE_{5t-1}} > 0, \frac{dP_t}{dG_2} < 0 \ \frac{dP_t}{dD_2} < 0, \frac{dP_t}{dN_2} > 0,$$

All classical assumptions of least square regression method apply to the above regression equation.

Gas flare may be described at two levels:

G_1 = 1 , if observation is before the commencement of reduction in gas flare;

0 , if otherwise .

G_2 = 1 , if observation is after the commencement of reduction in gas flare.

0 , if otherwise.

13% derivation to oil producing states may be described at two levels:

D_1 = 1 , if observation is before the period of commencement of 13% derivation;

0 , if otherwise.

D_2 = 1 , if observation is after the period of commencement of 13% derivation;

0 , if otherwise.

Establishment of NDDC (Niger Delta Development Commission) may be described at two levels:

N_1 = 1 , if observation is before the period of establishment of NDDC;

0 , if otherwise.

N_2 = 1 , if observation is after the period of establishment of NDDC, 0 , if otherwise.

(See Johnston, 1972:177; Draper and Smith, 1966:134-136; Koutsoyiannis, 1977:281-284 and McClave and Benson 1988:582-586).

Several models were dropped during actual analysis due to low explanatory powers; therefore the specific equations employed in evaluating the determinants of poverty reduction interventions for (NAOC) are provided below. The explanatory notes for equation (1) are also applicable here. The subscript 'A' denotes Agip.
Furthermore, the secondary data set relating to the variables E_{3At-1}, E_{4At-1} and E_{5At-1} were unavailable for Agip and as such, were not included in the models.

(a) **First Order Polynomial Models**

$$\mathbf{P_{At}} = \alpha_{A0} + \alpha_{A1} E_{1At-1} + e_{At} \ldots\ldots\ldots\ldots\ldots\ldots \quad (3)$$

$$\alpha_{A1} > 0$$

(b) **Semi-log Transformation of First Order Polynomial Models**

$$P_{At} = \alpha_{A0} + \alpha_{A1} \, 1nE_{1At-1} + e_{At} \ldots\ldots\ldots\ldots\ldots\ldots \quad (4)$$

$$\alpha_{A1} > 0$$

$$P_{At} = \alpha_{A0} + \alpha_{A2} \, 1nE_{2At-1} + e_{At} \ldots\ldots\ldots\ldots\ldots\ldots \quad (5)$$

$$\alpha_{A2} > 0$$

$$P_{At} = \alpha_{A0} + \alpha_{A1} \, 1nE_{1At-1} + \alpha_{A6} G_{2A} + \alpha_{A7} D_{2A} + e_{At} \ldots\ldots \quad (6)$$

$$\alpha_{A1} > 0, \ \alpha_{A6} < 0, \ \alpha_{A7} < 0$$

(c) **Semi - Log Transformation of Complete Second Order Interaction Models**

$$P_{At} = \alpha_{A0} + \alpha_{A2} \, 1nE_{2At-1} + \alpha_{A8} N_{2A} + \alpha_{A28} 1nE_{2At-1} N_{2A} + \alpha_{A22} 1nE2_{At-1}{}^{2} + e_{At} \ldots\ldots (8)$$

$$\alpha_{A2} > 0, \ \alpha_{A8} < 0, \ \alpha_{A28} < 0, \ \alpha_{A22} > 0$$

$$P_{At} = \alpha_{A0} + \alpha_{A2} \, 1nE_{2At-1} + \alpha_{A8} D_{2A} + \alpha_{A27} 1nE_{2At-1} D_{2A} + \alpha_{A22} 1nE_{2At-1}{}^{2} + e_{At} \ldots\ldots (8)$$

$$\alpha_{A2} > 0, \ \alpha_{A7} < 0, \ \alpha_{A27} < 0, \ \alpha_{A22} > 0$$

Note: The data range for this study is from 1993 to 2004. Additionally, Agip was unable to furnish three sets of data, namely - trend of community incidence, crude oil deferment trend due to community problems and annual volume of oil spilled.

3.3 Empirical Results and Discussion of Findings

The final regression results are displayed for equations (3) to (9) in Tables 1 and 2. The results of the estimating equations for the first order polynomials and the semi - log transformation are presented as equations 3 to 7 (five equations) in Table 1. The five independent variables included in the models are: E_{1At-1}(Oil production for Agip), E_{2At-1} (estimated Profit for Agip), G_{2A} (gas flare variable), D_{2A} (13% derivation variable) and N_{2A} (variable for establishment of NDDC). The three best equations are 3, 4 and 7. Together, these models explain between 55% and 73% of the variability in the dependent variable. Serial correlation is not a problem. The overall explanatory powers of these models are good as attested by the F-values. These values are significant at both the 1 percent and 5 percent levels.

For Agip, three variables were found to be significant determinants of poverty reduction interventions at both the 1 percent and 5 percent levels, and they include E_{1At-1}, D_{2A} and N_{2A}. The sign of E_{1At-1} is positive and it agrees with a prior, expectation, while the positive sign of D_{2A} and N_{2A} is opposite the expected sign.

Table 1: **Regression Results for First Order Polynomial and Semi - Log Transformation of First Order Polynomial Models (Agip)**

Equation No.	Constant Term	Independent Variables						$\bar{R}^2$	DW	F
		E_{1At-1}	In E_{1At-1}	Ln E_{2At-1}	G_{2A}	D_{2A}	N_{2A}			
3	2.081E+07	0.50572 (5.25) 0.0005***						0.72G2	2.3897 (2.1365)	27.52 (0.0005)***
4	-29.6732		4.70775 (3.65) 0.0054***					0.5513	2.7741 (2.1363)	13.29 (0.0054)**
5	1.40807			1.03395 11-08) 0.3069				0.0170	2.3859 (2.1256)	1.17 (0.30691
6	-10.1479		2.16827 (0.53) 0.6135		0.01186 (0.05) 0.9652	0.31040 10.56) 0.5940		0.4789	2.6407 (2.30301	4.06 (0.0577)*
7	5.35861			0.15481 (0,14) 0.8961	0.24171 (1.21) 0.2726	0.920 15 (4.65) 0.0035"	0.70753 (-1.98) 0.0944*	0.7140	2.769? (2.2587)	7.24 (0.0176)"

* Significant at 10 Percent ** Significant at 5 Percent ***Significant at 1 Percent

Notes

1. Figures in parentheses under the independent variable are t-ratios.

2. Figures in bracket under F-value represent level of significance, while those under DW stands for expected DW statistic generated by computer.

Table 2: **Regression Results for Semi-log Transformation of complete Second Order Interaction Models (Agip)**

Equation No.	Constant Term							R^2	DW	F
		lnE_{2At-1}	N_{2A}	D_{2A}	InE_{24st-1} N_{2A}	InE_{2At-1} D_{2At-1}	N_2S			
8	1865.77	.475.069 (.0.97) 0.3717	70.4432 (0.64) 0.5456		.8.90353 (.0.63) 0.5490		30.4164 10.96) 0.3742	.0.1776	1.9412 (2.1335)	0.62 (0.6632)
9	68.0322	21.5025 (0.10) 0.9226		22.8987 (.0.90) 0.4033		2.99233 (0.93) 0.3882	-1.53080 (-0.11) 0.9134	0.6746	2.2223 (2.2115)	6.18 (0.0254)

Significant at 5 percent level.

Notes: See notes to Table 2

The results of the semi-log transformation of complete second order interaction models are presented as equations 8 and 9 in Table 2. The adjusted R^2 (R^2) for equation 8 indicates the very poor explanatory power of the model. The F-value corroborates the inadequacy of the model and it is consequently not surprising that no parameter turned out to be significant. However, the explanatory power of equation 9 is about 67 percent. Jointly, the variables are important determinants of poverty reduction interventions for Agip but none is statistically significant. The F-value agrees with the above remark. The Durbin-Watson statistic shows no problem of serial correlation.

4 Findigs

From the use of secondary data, it was found that Shell Development Corporation (SPPC) of Nigeria has formal SD initiatives for the host communities in the areas of their operations in the Niger Delta Region. SPDC's SD strategy defines how the company aims to manage its activities line with SD principles. The way SD challenge for the company is explicitly defined just as are the organizational team and individual role and responsibilities. There was a paradigm shift in the policy of SD of Shell in 1997 from embarking on community assistance projects to embarking on community development projects.

The impact of oil production on the level of poverty reduction interventions is positive and statistically significant. Here, the term poverty reduction intervention is used interchangeably with community development spending or socio-economic investments of the Nigerian Agip Oil Company in the Niger Delta. Oil production is a function of the degree of extractive activities, which has a strong positive correlation to the social costs of pollution and environmental degradation borne by oil producing communities in the Niger Delta. Thus, Agip was compelled to plough back part of their earnings towards mitigating or ameliorating the despicable human conditions induced by oil exploration and production.

This study is comparable in some ways to the findings of Ikein (1990:161-167). He studied three scenarios - the impact of national oil production on: (i) oil producing states (ii) non-oil producing states (iii) and Nigeria as a whole. He concluded that the impact of oil production on socio-economic expenditures (in education, health, housing, power, roads and water) in oil producing states was not statistically significant between 1964 and 1984. On the other hand, the impact of oil production on socio-economic expenditures in non-oil producing states was statistically significant during the same period. Furthermore, it was discovered that the overall impact of oil production on socio-economic investments in Nigeria was statistically significant between 1964 and 1984.

The reason for the significant impact of oil production on socio-economic expenditures in local host communities is partially attributable to the directive given to oil multinationals in Nigeria as far back as 1987 by the Federal Government to invest in agriculture (see NAOC - Hand in Hand with the Host Communities, undated: 6) as well as the astronomic rise in youth militancy or restiveness in the Niger Delta, especially from the 1990s.

The estimated profit stream generated by Agip was found not to have any statistically significant impact on poverty reduction interventions in the Niger Delta. This implies that the proportion of profit channeled into socioeconomic investments in local host communities is meager. The profit share of Agip devoted to poverty

reduction interventions calls for concern. Firstly, the estimated profit levels arrived at in this study must be regarded as the minimum. The profit estimates relate only to joint venture projects. Secondly, a similar finding by Rowell, 1994 in Obi (1997:15) revealed that the money spent on community assistance (by oil companies) is 0.000007% of the value of oil extracted. This is infinitesimal. The UNDP Niger Delta Human Development Report (UNDP, 2006) notes, 'The oil companies, particularly Shell Petroleum, have operated for over 30 years without appreciable control or environmental regulation to guide their activities". Obi (1997:14-15) further averred that, "thus, Shell and the other oil multinationals backed by the state have been able to operate with maximum leverage. Worse still, Shell and others have been unable to show concrete evidence of detailed environmental impact studies of their activities in the Niger Delta, thus, exhibiting their scant regard for environmental considerations in their pursuit of profits".
Thirdly, to buttress the point that the profit earned by oil multinationals is far above the estimates of this study, Obi (1997:10) remarked that most of Nigeria's oil is produced by the oil companies as " operators or technical partners" of the state and that these companies possess the monopoly of technology in the oil industry. Thus, this relationship scenario provides them an ample leverage to undercut the state in terms of sharing cost, profits, and the transfer of technology and skills. Furthermore, Obi noted that a former chief executive of the NNPC, Amu, observed that these companies built their costs into their profits and made the state pay for these (also see Alii, 1997:316-326).
For Agip, the investment in reducing gas flare is not a significant determinant of community development spending. The raw annual data indicate a more or less stable (constant) relationship between the dummy variable for gas flare and socio-economic expenditure. A word of caution here is in order. Agip should not fall into the temptation of cutting poverty reduction interventions because the age-long problem of gas flare is on a declining trend. How else do oil companies in general think they can compensate host communities in the Niger Delta for over 30 years of gas flare and infliction of monumental social costs in an era when they invested little or nothing to remedy the problem? Anyway, as at today, the volume of gas flared is still very high in the country. The United Nations system in Nigeria (2001:79) observed that global estimates indicate that the flaring of gas by oil companies in Nigeria account for 28% of total gas flared in the world! (Also, see Okaba, 2005:191).
The payment of 13% **derivation funds** to oil producing states has a statistically significant positive impact on Agip's spending on community development programmes in the Niger Delta. Thus, derivation payments and community development spending are positively related, meaning that for Agip, increasing derivation payment was associated with more spending by the Italian company on socio-economic projects in host communities. This is a complete opposite to the case of Shell. Agip should sustain this trend. (See Eboreime, 2007).
The outcome of this study indicates that the **establishment of the NDDC** has a significant inverse (negative) relationship to Agip's community development initiatives. In otherwise, Agip fell into the trap of reducing community development spending in response to the establishment of NDDC. Furthermore, it may be noted that the funding of NDDC is a shared responsibility between the oil companies and the Federal Government. According to the Time International Magazine (May, 2006:25), the Niger Delta Development Commission has about $235 million to spend every year. This amount is highly inconsequential for the development and emancipation of the indigenous population from the clutches of poverty. Time Magazine quoted the NDDC's head of corporate affairs, Aniete Usen as saying, "That is peanuts [$235 million] compared to the problems of the area," and the magazine concluded by remarking that many see the NDDC as mere window dressing. Therefore, it does not seem appropriate for Agip or any other oil company to reduce their individual developmental commitment on the basis of the establishment of NNDC.

5 Conclusion

From the use of secondary data, it was found that Shell Development Corporation (SPPC) of Nigeria has formal SD initiatives for the host communities in the areas of their operations in the Niger Delta Region. SPDC’s SD strategy defines how the company aims to manage its activities line with SD principles. The way SD challenge for the company is explicitly defined just as are the organizational team and individual role and responsibilities. There was a paradigm shift in the policy of SD of Shell in 1997 from embarking on community assistance projects to embarking on community development projects.
The fundamental reasons for the involvement of Agip and other multinational oil companies in poverty reduction intervention is because of the crude oil extracted from these local communities and the attendant heavy social cost borne by the people. It may be said that almost anyone will respond in the above manner. However, genuine and sincere concern for the plight of poor communities (whose environment has been severely castrated by over four decades of oil exploitation) should have produced or goaded oil firms to move beyond sub-ordinary levels of community development spending to the ordinary and extra-ordinary. This is more so, when cognizance is given to the fact that the operations of these companies have always been associated with very high and robust profits.

It is clearly evident on the basis of this study that the establishment of the Niger Delta Development Commission (NDDC) was instrumental to oil firms shrinking from their corporate social responsibility instead it being a source of pleasant complimentarily and a motivator to Agip to do more for host communities. More importantly, the study has revealed that the proportion of profit devoted to community development in local host communities is inconsequential. Agip will do well to double the current level of socio-economic investment in the Niger Delta.

6 Recommendations

It is recommended that backed by policy:

1. The strategic managers of Agip and Shell should adopt the Behavioural Model for determining SD initiatives.
2. The strategic managers of Shell and Agip should continue to execute community development projects in preference to community assistance projects.

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