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**Environmental Impact Assessment and Sustainable Development in
the Niger Delta:
The Gbarain Oil Field Experience.**

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Introduction

Communities in the Gbarain oil field operated by Shell petroleum developing company Nigeria Limited, which depend on the forest for sustenance, have begun to complain about the adverse changes in the environment. The Gbarain oil field Communities are located in the Niger Delta. The Niger Delta is blessed with abundant physical and human resources, including the majority of Nigeria's oil and gas deposits, good agricultural land, extensive forests, excellent fisheries, as well as well-developed industrial base, a strong banking system, a large labour force, and a vibrant private sector. However, the region's tremendous potential for economic growth and sustainable development remains unfulfilled and its future is threatened by deteriorating economic conditions that are not being addressed by present policies and actions of Government and the Oil Industries. There is urgent need to implement mechanisms to protect the life and health of the region's inhabitants and its ecological systems from further deterioration. (World Bank, 1995:V) The primary objective of environmental impact assessment is environmental protection for sustainable development and social well being of the people. This research, therefore, seeks to find out how environmental impact assessment in the Gbarain oil field communities can be used as a means of achieving sustainable development.

The general aim of this research is to study the role of environmental impact assessment (EIA) in ensuring the sustainable development of oil producing communities in the Niger Delta with particular attention to Gbarain oil field communities in Bayelsa State of Nigeria. Specific project objectives:

- to examine the origin and development of the oil industry in Gbarain oil field communities.
- to investigate the environmental impacts of the oil exploration and production activities on the Gbaran oil field communities.
- to investigate the involvement of communities in environmental impact assessment.
- to understand how environmental impact assessment can help indigenous people to achieve sustainable development.
- to examine how the changes in the environment can lead to conflicts between the people and the oil companies.
- to examine the observance of monitoring plans for impact and compliance assessment.
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The Gbarain oil field communities have been inundated with a series of environmental conflicts due to the activities of Shell Petroleum Development Company of Nigeria Limited (SPDC). Since the introduction of EIA, there has been continued activities of oil based projects in the area. The significance of this research is to juxtapose how the application of EIA in the Gbarain oil fields have helped in promoting sustainable development in the region. This has a direct nexus with the curtailing or exacerbating

of the violent environmental conflicts that have characterized the region in recent times.

In carrying out this research, we have adopted a multidisciplinary approach that spans the disciplines of History, conflicts studies, Botany, sociology, etc. The study involved the review of relevant literatures and consultation/interview with key stakeholders who are knowledgeable about the Gbarain oil field environment and organizations from the Niger Delta region of Nigeria. The major sources of secondary information are the published books, journals, Internet, newspapers, magazines, unpublished materials. For primary information, interviews were conducted amongst the major stakeholders and the oil company workers in the area. The interviews captures the richness and complexities of the issues and allows the respondents to 'pour out' their mind.

The Niger Delta

According to Nyananyo (2002), the cartographic Niger Delta is the most inhabited delta in the world. It is Africa's largest and the world's second largest (Afolabi, 1998; Nyananyo, 1999; Anderson and Peek, 2002). It covers some 7,000 square kilometers, about one-third of which is made up of wetlands containing the largest mangrove in the world, 5,400 – 6,000 km² (Afolabi, 1998, Nyananyo, 1999). In addition, it consists of a number of distinct ecological zones such as coastal ridges, barriers, fresh water swamp forests, and lowland rainforests (Nyananyo, 1999). This cartographic Niger Delta covers the area supplied with water from the River Niger and Benue as they flow together after Lokoja (the Confluence) to empty their contents into the Atlantic Ocean. These rivers (now joined) break up at Ebuetor into the Rivers Nun and Forcados. The cartographic Niger Delta thus is that portion of the landmass (including water), traversed by the Rivers Nun and Forcados (including the tributaries). The major tributaries of the rivers Nun and Forcados coming from the eastern Niger Delta to the West are Rivers Opobo, Andoni, Bonny, New Calabar, Sombreiro, San Bartholomew, Santa Babara, St. Nicholas, Brass, Nun, Sangana, Fish Town, Koluama, Middleton, Digatoru, Pennington, Dodo, Ramos, Forcados, Ethiope and Benin. A lot of activities currently being carried out in the Niger Delta have introduced considerable changes in this delicate ecosystem. Such activities include coastal zone modifications, upstream dam construction and urban growth, agriculture (including fishing), industrial development, population pressure and exploitation of natural resources (Nyananyo, 1999).

In writing a foreword in the book "Environmental Issues and Challenges of the Niger Delta Perspective from the Niger Delta Environmental Survey Process: Selected Speeches and Presentations (1995-2001 by Gamaliel O. Onosode edited by Chokor, 2003:x). Senator David O. Dafinone, said that:

"The region called the Niger Delta is a paradox. It is the richest poorest region in Nigeria. The area constitutes the oil belt and produces the wealth of the nation for decades. The country has depended on it (still is) to transform lives, cities and impose civilization and rural communities.

Ironically, the owners wallow in abject poverty, unaffected by the billions of dollars taken away from them. They have no access to clean water; electricity and majority of them live in thatch houses. The long years of painful neglect and decay coupled with unbridled exploration and exploitations of their oil and gas have laid the region bare as evidenced by large-scale want, squalor, ignorance, disease and idleness. Theirs is a life of deprivation in the midst of abundance.....

Exploration and exploitation activities of the prospecting companies open their delicate land to soil erosion and flooding. Even more damaging to the ecosystem is the impact of spillage and careless handling of petroleum effluents by oil companies. The marine resources of the entire area are systematically deplete while the traditional occupation of farming and fishing are engendered. The utter neglect and brazen insensitivity of the government and companies to the plight of the Niger Delta culminated in the wave of violence and youth restiveness that have been the feature of the area for some time now. Brute force or armed intimidation has failed to stem the protests. Our livelihood is a direct product of our habitat. The environment is our collective heritage, our only enduring legacy to the generations yet unborn. This must have accounted for the enthusiasm which greeted the setting up of the Niger Delta Environmental Survey (NDES) in 1995.”

The Niger Delta, though economically important, is ecologically fragile and this creates a conflict especially where development is not properly managed. Indeed, the pattern of resource exploitation and use has been a major threat to this prime resource region. The inequities experienced in distributing the wealth of the region, particularly as it affects the immediate producing areas, has been a source of social discontent, generating conflicts and communal tension. The critical challenge therefore is how to minimise environmental damage at the same time, promote social welfare amongst community members (Onosode, 2003:2). According to Onosode, the livelihood of people who inhabit the region, which derives essentially from farming the major resource activity in terms of finance, and undoubtedly environmental and socio-economic impact, is oil and gas production.

However, the livelihood of inhabitants of the region, which derives essentially from farming, fishing, forest resources collection and agro-cottage activities, also depends on the natural resource base of the area. While oil and gas production activities have been beneficial and have produced the base for economic growth for over 25 years, for the 7 million or so Nigerians who live in the Delta the impact can hardly be described as positive... It is obvious, therefore, that previous economic policies and resource

exploitation programmes have paid marginal attention to environmental sustainability and human welfare (Onosode, 2003:3).

The declining natural resources base of the people occasioned by these activities together, with widespread poverty and underdevelopment, against the background of the immense oil wealth derive from the region, has engendered a feeling of alienation from the development process. (Ibid: 14). Azikiwe Otobotekere an indigene of Ekpetiama clan in the Gbarain oil field and a fisheries expert opines that the loss of the fisheries of the area is partly due to over exploitation as the forest is more easily accessed and the disruption to natural drainage system leading to loss of natural spawning grounds for fishes. According to him, shrimp fisheries is no more.

Gbarain oil field is situated near Yenagoa, capital of Bayelsa State in the central Niger Delta. It is made up of four clans namely Gbarain, Ekpetiama, Epie, and Atissa. They are made up of several fishing and farming communities. The area occupied by these communities is characterized by wetlands and water bodies with several creeks, rivulets and rivers. Over 50% of the land area is seasonally flooded in the year, resulting from the overflowing waters of the lower Niger River during which some communities especially in Ekpetiama and farmlands are totally submerged. River bank erosion is very common along Nun River and Taylor Creek (Dickson, 2005). The area has a high agricultural potential endowed with enormous natural resources. The area is an example of a tropical rainforest with cassava, cocoyam, plantain, banana, sugarcane, garden egg, yam, rice, etc as major food crops. The forest of the Gbarain oil field communities is also rich in timber and creates opportunities for lumbering activities. Non-forest timber products (NFTP) include raffia palm, snails, wild fruits, bamboo, fibres, rattan, and medicinal plants. Fishing is a major activity in the several creeks, lakes and floodplains. Hard working fishermen and women from the Gbarain oil field communities enjoyed its benefit of catching a lot of fishes, shrimps and lobsters during the flood season to enhance their economic base. Various fishing gears are used.

Agriculture prior to the discovery of oil has been the mainstay of the local economy. Notable occupations include, but are not limited to, palm oil making, palm cutting, canoe carving, gin distilling, mat weaving, fishing, farming. Gin (Ogogoro) is distilled in the raphia palm bushes in the back swamp environment especially Korodaba area in the Gbarain oil field. Palm wine (Izon Uru) is also tapped from the raphia and fermented and distilled into gin (Konuru). Farming appear to be more popular with the people and the ratio of female to male farmers is 7:3 (Dickson and Otobo, 2005). Cultural activities, which support their economic activities, include – *Odiodi Fishing festival* at Gbarain prior to the Gbarain Yam Festival celebrated 15th July of every year, *Okolede Festival* in the Ekpetiama Clan, *Adiafa* in Epie and Atissa Clans. The above mentioned festivals are all celebrated in honour of their first fruits (New Yam) festival, which indicates farming as one of the main occupations of the communities in the Gbarain oil field.

Most of the communities cultivated cassava as their major crop. Others are plantain, banana, maize, cocoyam, water yam of different types, sweet potatoes, coconut, garden egg, pepper, okoro, sugarcane, and vegetable. The plantations consist of mainly oil palm,

rubber and cocoa. As a primary school pupil, I know people like Mathias Azegbe, Wenigha Duwei, Newstyle Ayafa had Cocoa plantations in Obunagha. The plantations are not given the needed care and with oil era it has collapsed, said a community leader. In the communities, crops were cultivated mainly for subsistence and income generation. It is however noted that a lot of farming activities have been disrupted negatively by the effects from the construction of the Gbarain link road by Shell in 1990 through dredging and sand filling from the Nun River (Dickson and Otobo, 2005).

Origin and Development of the Oil Industry in Gbarain Field

According to Onosode (2003:74-77,86), oil exploitation in Nigeria dates back to 1903 when the colonial government set up the Mineral Survey Corporation. In 1907, the Nigerian Bitumen Corporation was formed and it drilled 15 shallow wells in the old Abeokuta Province between 1908 and 1910, but no discoveries were made. In 1937, Shell d'Arcy had the whole country as a concession block and between 1937 and 1939 it carried out preliminary subsurface geological investigations. After the interruption caused by the Second World War, the first well (Imo-1) was drilled in 1951 to a depth of 3,422 metres without oil. It was in 1956 that the first successful well, Oloibiri-1 was drilled with production capacity of 4,000 bbls/day in 1958, which put the Niger Delta firmly on the path of oil production.

Gbarain Oil Field was discovered in 1967 almost a decade after oil production began in Oloibiri. This swamp land covers an area of approximately 30 hectares. According to the Shell Bulletin released in August 1990, Shell Petroleum Development Company announced the discovery of an On-Shore oil and gas field at Gbarain, Rivers State (now Bayelsa State). The discovery amounted to some 400 million barrels of oil and over half a trillion British cubic feet of gas, with scope for significantly larger volume of oil being present. The Shell statement further asserted that in April 1991, it discovered yet another additional oil reserve of 722 million barrels from two explorations, and eight (8) appraisal wells from the same area. The Ministry of Petroleum Resources in a further official statement issued in April 1991, confirmed the authenticity of the Shell's discoveries. The Shell Petroleum Development Company's official statement credited these latest discoveries as "the biggest and largest find from any community throughout its operation in the West African sub-region".

As part of the development of Gbarain Deep Oil Field, SPDC embarked on the construction of the Gbarain Link Road, about ten kilometer long in 1991 from Etegwe junction in the Mbiama-Yenagoa Road to Tombia in Ekpetiama clan in the Yenagoa Local Government Area of Bayelsa State. This road construction, which was mainly by dredging and sandfilling with several branch-offs leading to the numerous locations, caused the blockage of seasonal lakes, swamp pools and other water bodies. Before this road construction, fishermen and women from the Gbarain field communities engaged in catching a lot of fishes, shrimps and lobsters during the flood season to enhance their economic base. Moreso, travelling from Gbarain to and from Ekpetiama clans and also from Gbarain to Epie and Atissa clans, were made easier by short communication routes provided by the lakes, creeks, creeklets, swamp pools, etc. But with the construction of this road, the short communication/access routes were blocked. Being

a major project in a delicate ecological system, construction of the road should normally have been preceded by a detailed Environmental Impact Assessment (EIA) which would have highlighted the possible impact of the project and environment, and also suggest mitigation measures. Communities which depend on the forest for sustenance such as Opolo, Onopa, Obunagha, Gbarantoru, Yenizue-gene, Yenizue-epie, Yenagoa, Amarata, Okutukutu, Agudama-epie, Edepie, Tombia, Bumoundi, Agudama-Ekpetiama, Akaibiri, Kpansia, Polaku, Koroama, Okolobiri, Okotiam, Ogboloma, Nedugo-Agbia, Etegwe, Igbogene, etc began to complain about the adverse changes in the environment.

The Environmental Impacts Assessment Process (EIA)

In writing a foreword to a new manual on “Environmental Impact Assessment (EIA) Process: A Manual for EIA Execution in SPDC”, the former Managing Director of Shell Petroleum Development Company of Nigeria Limited (SPDC) Ron Van den Berg said:

“SPDC must continue to work with external stakeholders to manage the impact of our operation on the environment in which we operate. If we don’t get this process right, SPDC and its host communities can have no sustainable future. However, in the specific area of EIAs there have been a number of gaps in our approach to date. For example, up to now we have been stronger at describing the environment than at identifying ways to manage and optimize our impact on the natural environment and the people who inhabit it. In other words, we have not taken full advantage of the EIA as a management tool integrated into project execution. We also have opportunities for improving the efficiency and relevance of the data we capture when preparing and using the EIA. Perhaps more important still, our EIA process up until now has been very largely about the natural environment, much less about the human environment.”

The former Managing Director further said that “we are just starting an ‘Enhanced Social Programme’ with our moves away from the conventional community assistance mentality towards more sustainable community development. The social impact of our operation and the specialist area of health impact – need to get far more emphasis from now on in impact assessment and management. In our current operating circumstances, the impact on the communities where we operate is in many ways more critical to the success of a project than our impact on the natural environment. And we are not unique in this – you will have heard our Group Chairman,

Mr. Moody-Stuart, talking of the worldwide need to tackle all three pillars of sustainable development – the commercial, environmental, and social sustainability of what we do.

... line managers implementing engineering projects should feel a very personal responsibility for ensuring that their EIA teams carry out proper EIAs, and that projects are then managed according to the plans developed in the EIA during the entire life of the project. This is not a task that can be wholly delegated to a group of specialists – it is a task like any other as important to project success as optimizing commercial impact, and needs line commitment. And let's not forget, the task continues through the operating life of an asset (see Environmental Impact Assessment (EIA) Process: A Manual for EIA Execution in SPDC, December 2000:5).

The Shell Petroleum Development Company of Nigeria Limited (SPDC) policy requires that an environmental impact assessment study must be carried out for all categories of development activities, irrespective of their sizes. The activities could be exploration drilling, seismic survey, dredging, laying of flowline, drainage construction, or any other non Exploration and Production activity that has the potential to impact on the natural and social environments. The SPDC policy is in line with the Shell Group Policy on the environment and conforms to the Nigerian regulations regarding environmental management (SPDC 2003:19).

SPDC'S Practice with regards to the implementation of EIA entails following laid down company processes. There is first the need to examine the legislations with regards to its provisions vis-à-vis the project embarked on. These legislations include the following

- i. Federal Ministry of Environment (FMENV) Regulations
- ii. Department of Petroleum Resources (DPR) requirements for
EIA
- iii. State Environmental Protection Agencies (EPAs)
- iv. International Legislation

The Federal Ministry of Environment Regulations like EIA Act No. 86, 1992 mandates the Federal Ministry of Environment (FMENV) to regulate EIA in Nigeria. It sets out the procedures and methods that enable the prior consideration of EIA for certain public or private projects.

The Act specifically requires an EIA for any project that involves:

- Seismic exploration activities
- Drilling operations (exploratory, appraisal, and development wells) in onshore, near-shore and offshore locations
- Construction of crude oil production, tank-farm and terminal facilities
- Laying of crude oil and gas delivery lines, flowline and pipeline in excess of 50km in length

- Hydrocarbon processing gas plant

The Act also requires EIA for non-oil and gas activities, including land reclamation, dredging and construction (housing estate, sewage system, landfill, road construction, etc.). In addition, all major upgrades of facilities must be subjected to the EIA process. However, the final decision on whether a project requires on EIA rests with the regulators, based on the proposal submitted to them by project owners, early in the EIA process.

The Department of Petroleum Resources (DPR) is empowered to supervise the entire operations of the oil industry by virtue of section 191 of NNPC Act, 1979. This Act empowers DPR to ensure that operators in the petroleum industry in Nigeria do not degrade the environment in the course of their operators. DPR also enforces the clean up and restoration of oil spills and impacted environment to acceptable levels, as well as controlling new projects that may adversely impact the environment.

The DPR has the power to issue licenses/permits as well as establish guidelines, standards and procedures for environmental controls as required by the Petroleum Act of 1969.

DPR regulations require all holders of exploration, prospecting, exploitation, refining, transportation and marketing licenses of petroleum resources to take or adopt practical precautions and all steps practicable to prevent pollution, and to cause as little damage as possible to the environment in their areas of operation. The use of EIA as an environmental management tool, is mandatory and is adopted by DPR as an additional enforcement strategy. This is reinforced in the revised Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN) of 2002. The States also have power to make laws with respect to the environment under the Constitution. It is therefore necessary to consult with the environmental protection agency in States that would be impacted during a project life cycle, especially during the scoping and review stages of the EIA process.

Besides the FMENV, DPR and State EPAs legislation, there are numerous International Agreements and Conventions to which Nigeria is a signatory. In addition, there are other International legislations to which the Shell Group is committed. These legislations are relevant in conducting EIAs in SPDC.

The applicable standards guiding the conduct of EIAs in SPDC are contained in the following documents:

- Guidelines and Standards for Environmental Pollution Control in Nigeria (FMENV Publication, 1995).
- Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (DPR Publication, 1991) 2002.
- World Bank, United Nations Environmental Programme (UNEP), International association of impact. Assessment (IAIA) EIA Standards

- Technical Guidance for Environmental Assessment(Shell Group Yellow Guide, January 2000).
- Shell International Exploration & Production (SIEP) guidelines.

In addition to these legislations and standards, SPDC has policies governing environmental assessment, community development as well as health, safety and environment (HSE).

Having examined legislative issues with regards to compliance, the EIA Process is initiated by Process Description involving the following steps:

The EIA process is the procedure followed in determining likely effects of projects on the environment, health and social well-being of communities in the project area. The EIA is an input into the project definition, basis for design, detailed design, construction, operation, decommissioning and end-of-project phases. There is a continuous flow of information to Regulators and stakeholders at relevant stages of the EIA process. It is important that communities get involved in relevant stages of the EIA process to minimize disagreements within the project's lifecycle.

In planning any new project, the project manager who requires an EIA initiates the process and has overall responsibility for delivering the EIA. The project manager sets up the project EIA team made up of members from Environmental, Community Development, Health, Land and Geomatics departments and the project team. The project EIA team gathers and reviews all written information on the project and the area where the project will be sited. If required, a helicopter may be flown over the project area to gather more information. The project plan allows for an EIA to start early in the project lifecycle, so alternatives can be considered where necessary. Usually, an EIA is initiated 18 months before a project begins.

The project EIA proposal is developed in accordance with the EIA Procedural Guidelines, 1995 of the Federal Ministry of Environment (FMENV). The proposal, a completed registration form and a registration fee are submitted to the FMENV. The Ministry screens and categorises the EIA and sends a report, which contains the scale of the EIA. This scale determines the level of stakeholders' participation in the EIA process. However, there is always engagement of the affected communities. The EIA proposal is also sent to DPR.

After the FMENV and DPR have categorized the EIA, the stakeholder involvement starts and continues throughout the EIA process. The communities are notified of the need to participate fully in relevant stages of the EIA process beginning with the scoping exercise at this stage. Thereafter, during a series of meetings, the communities are encouraged to select people (chiefs/elders, men, women, opinion leaders and youths) that will fully represent their interest to participate in the scoping exercise described in this guide. SPDC is committed to involving communities in the project area.

1. The Scoping Process

Project EIA scoping involves interacting with stakeholders in order to fully inform communities and other relevant stakeholders of the project and identify:

- The appropriate boundaries for the EIA study.
- Important issues and concerns of the communities.
- Effects and cultural factors to be considered in the EIA.

During scoping, reasonable and practical alternatives are considered and discussed with the people who are likely to be affected by the proposed project. The project EIA team organizes the scoping exercise involving the EIA consultants, representatives of communities, Community Based Organizations (CBOs), Non Governmental Organizations (NGOs) and Regulators (FMENV, DPR, NAPIMS, State EPAs).

A scoping report is written based on issues and concerns raised by stakeholders during the scoping exercise. This report forms the basis for the Terms of Reference (ToR) and the Preliminary Assessment of Impact Report (PAIR) that are sent to the Regulators for approval.

II. The Contracting Process:

The project EIA team selects consultants who carry out the impact assessment on the natural, social and health components of the environment. These consultants are the main parties that will work with the communities during the fieldwork.

III. The Terms of Reference (ToR):

The Terms of Reference is an agreed list that defines all the issues the EIA must address. The ToR is submitted to the FMENV for approval after which it is used to develop the detailed work plan for the execution of the EIA.

IV. Detailed Work Plan:

The detailed work plan contains a full description of the methods used for gathering information on the natural, social and health components of the environment, sampling locations, time frame and techniques for analysis of data. The communities are informed of the commencement of field investigation as stated in the detailed work plan.

V. Field Investigation:

A reconnaissance visit may be carried out before the field investigation. If this visit takes place, consultants, SPDC representatives, NGOs and the communities in the project area meet to plan the field investigation and for the communities to provide assistants who will work with the environmental, social and health consultants. During the full field investigation, it is important that the communities participate actively in assisting the EIA consultants in collecting relevant samples and data. The Regulators are involved in the fieldwork supervision and Quality Assurance and Quality Control inspections. During the fieldwork, geographical coordinates of the sampling points and field data points are recorded and stored in SPDCs Geographical Information System (GIS) database.

VI. Data/Sample Analysis and Impact Quantification:

Data and samples collected from the study area are analysed using internationally acceptable methods and tools for quantification and prediction. The significance of potential impact of the project throughout its lifecycle and its alternative is determined in order to avoid or minimize negative effects on the environment, as well as the health and social well being of the communities in the project area.

VII. Draft EIA Report and Stakeholders' Feedback:

The consultants working with the project EIA team produce a draft EIA report. Thereafter, the project EIA team reviews the draft report in accordance with SPDC's EIA review criteria. In addition, SPDC Legal department reviews the entire draft report. All identified corrections and concerns are collated by the project EIA leader and passed on to the EIA consultants. The results of the EIA study will be presented to the communities for discussion and feedback.

VIII. Submission of Final Draft EIA Report to Regulators:

The final draft EIA report in which feedback from stakeholders has been incorporated is submitted to the Regulators (FMENV) with a processing fee in accordance with the EIA procedural guidelines, 1995 of FMENV. Should the scale of the EIA demand, the FMENV puts copies of the final draft EIA report on public display for 21 working days and it is publicized on radio and newspapers. FMENV sends copies of the report to Local Government Headquarters of the Communities. The entire public is invited to read and make comments on the report so displayed before the panel review session.

IX. Regulator Panel Review Process:

Panel review, involving participation of various stakeholders, may be required by FMENV and DPR as part of the EIA approval process. The panel is constituted by the Minister for Environment to listen to comments from all stakeholders and interested public/organizations and to ensure that all important issues/concerns raised by stakeholders are addressed in the EIA Report. The project EIA team facilitates the panel review by arranging logistics, venue, site-visits and presentations. At the panel review, SPDC makes presentations on the technical aspects of the report as well as environmental, social and health issues addressed in the report. Stakeholder communities are given opportunities to express their concerns and observation at the Panel Review meeting.

X. Final EIA Report:

At the end of the panel review, the Regulators issue an official statement to SPDC based on discussions during the review session. FMENV could grant provisional approval of the EIA which enables the start of the project while corrections on the draft EIA report are being addressed. Issues contained in the statement are then incorporated into the final draft EIA report by the consultants supervised by the project EIA team. This is the final EIA report. Copies of the final EIA report are sent to the Regulators, who on acceptance of the report may distribute it, as they deem fit.

XI EIA Permit:

After accepting the final EIA report, both FMENV and DPR issue EIA permits separately. The granting of the EIA permit is an indication that SPDC has adequately determined the potential project impacts as well as selected mitigating measures to minimize the impacts on the environment, health and social well-being of the communities in the project area. Also the environmental management plan put in place for the project is considered adequate.

XII. Environmental Management Plan (EMP):

After the approval of the EIA by the Regulators, the environmental management plan (EMP) for the project is pulled out of the EIA report as a stand-alone document. The EMP details how significant impacts from project initiation to closeout will be managed. It provides a guide on the appropriate means of managing the environment during the various project activities as well as incorporating a community development plan indicating health, social and economic benefits that will accrue to the communities in the project area during the project lifecycle. The project manager reviews, adopts and signs the EMP and is responsible for its implementation throughout the project lifecycle. The Regulators monitor the implementation of EMP to ensure SPDC complies with its obligations to lessen negative impact and boost positive impacts of its project on the communities where it operates. (SPDC 2003:4-16)

EIA Findings and Gbarain oil fields

From this point let us have a picture of the findings of the EIA carried out at the Gbarain oil fields. A practical example of the adverse effect of disregarding environmental issues in carrying out development projects can be found in the Yenagoa-Tombia Road project by Shell Petroleum Development Company (SPDC). The whole environment has been destroyed and SPDC is now being asked to pay compensation, redesign and reconstruct the road with due regard to the environment. The whole area became waterlogged all year round because the dredging work for the road construction blocked the streams. Many of the trees were destroyed. The land was degraded and the water was contaminated with dredge spoils and sinking and all the aquatic life was destroyed. What this means is that the people in this area who depended on these streams for their fishing lost all and were subjected to health hazards.

The scenario so far painted, is one that suggests that a plethora of public and private sector regulations, guidelines and laws, for effective environmental governance in the Niger Delta region is in existence. In other words, there are enough pre-emptive legislations and rules to address possible environmental problems that may arise in the course of resource extraction from the Gbarain oil field area. In spite of the apparent comprehensiveness of the operational rules and procedures, environmental degradation of the region remains the rule, rather than the exception. These are meant to be instruments that foster and facilitate the judicious utilization of the regions natural resources for the attainment of sustainable development? In spite of stated safeguards and apparent precautionary measures, the threat to the environment of the region from oil spillage remains real. Spillages imply devaluation of farmlands, loss of biodiversity, pollution of fresh water resources, and loss of the local people's means of livelihood. Thus, in addition to attempting to comply with public guidelines and regulations

prescribed for the oil industry, the multinational oil companies have also prescribed for themselves, at least theoretically, dynamic in-house environmental management plan (EMP). The EMP is designed to ensure that project impact, control and environmental recovery measures articulated in EIA reports, are made key issues during project implementation. This is done in furtherance of oil industry policies on health, safety and environment (HSE), and in accordance with the national environmental policy. The HSE manual of SPDC for example, is described as a strategic communication tool to inform SPDC staff and contractors of their responsibilities for carrying out HSE critical activities and the standards to which these responsibilities must be performed (Okpara, 2004:30).

EIA of Gbarain Phase I Field Development by SPDC (Well Drilling Campaign)

Shell Petroleum Development Company of Nigeria Limited (SPDC) had planned to drill two (2) development wells in the Gbarain field, and it was expected that the production data gathered during this drilling phase will be integrated into the Phase II development for the field according to their EIA report (SPDC 2001:1). In line with regulatory requirement of Federal Environmental Protection Agency (FEPA), Department of Petroleum Resources (DPR), an SPDC Environmental Policy, SPDC-East Commissioned an Environmental Impact Assessment (EIA) for the Gbarain field development activity to identify, predict and describe in an appropriate term the likely environmental impacts on the people and the community, both adverse and beneficial as well as identification of measures for mitigating the adverse effects. The EIA was reviewed on the 9th of March, 2001 at Yenagoa by the Federal Ministry of Environment with serious objections from the stakeholders, although the primary stakeholders were not officially invited for the review meeting. It was resolved in a meeting on the 8th of April, 2001 at Opolo Town that the whole EIA should be repeated. The decision of the EIA does not reflect our opinion because the rights of the citizenry should be recognized in a democracy to participate in decisions that affect our lives, property and the things we value according to Linda Rahm Crites (cited in Webster and Fittipaldi, 1998). One of the principles of ecosystem management is that common ecological management goals should be socially defined through a collaborative vision process that involves all interested participants and that incorporate ecological, economic and social considerations (Keither and Adler, 1998). In the present EIA aimed at drilling the two wells to increase production to 40,000 bpd in the Gbarain field, the Gbaran deep oil field Landlords Association observed the following:

Whereas Section 7 of the EIA Decree empowers government agencies, the public and other interest groups to make input in EIA reports, no copy of the said EIA was displayed either at Yenagoa Local Government Council Office, nor Okolobiri, headquarters of Gbarain/Ekpetiama LGA. Therefore, the interested groups in the main host local government areas were denied the opportunity to have access to and comment on the EIA report.

No health risk analysis in the Gbarain Oil Field communities and therefore no mitigation measures.

There was no consultation with communities.

Impact on Obunagha Community was not predicted knowing the current effect of the Gbarain Link Road on Obunagha Community's land.

How do they (Shell) intend to reinstate adversely impacted areas to a condition suitable for the original use of the area in view of the previous impact without remedial measures?

What has happened to the withered trees as an indirect result of civil engineering activities, which have changed the hydrology of the environment?

Respondent to structured questionnaires were not representative enough because they were from a particular village out of the 19 communities.

On page 77, it was said that Banks, Police Station, Post Office, One Nursing School are available in Opolo.

Can Shell identify where the Bank, Police Station, Post Office, and One Nursing School are located in Opolo?

According to Mark Moody-Stuart, Chairman of the Committee of Managing Directors, in a summary of the Shell Report, 2000, said the "*project proposals, for example, will only succeed if they take account of environmental and social factors..*". It is therefore the decision of Gbarain deep oil field Landlords Association that since the local hydrology due to poor civil engineering activities has been destroyed given rise to flooding, dead trees, habitat disturbance, the past must therefore be brought to the present before the well drilling campaign for ULTR-1 and Gbarain East-2 begins.

Basil Enwegbara (*ThisDay*, Wed. Aug. 25, 1999, p. 30) notes:

"public participation is an important requirement to fulfill on the way to project implementation and monitoring. Shepherd and Ortolando are of the view that for EIA to be successful, all participating stakeholders have to be fully involved at every stage of the project, EIA. Allowing public participation leads to fair and transparent EIA decision-making activity, since they are the primary stakeholders and beneficiaries of such projects. In addition, a project could carry more legitimacy and less hostility, if the public has become adequately involved to influence all stages of decision-making process. And finally, the public can exert pressure on project sponsors and donors to address the negative environmental impacts of such proposals, as has

been the case in Wales where protest by a group of concerned communities in a Shell project at Almwch, forced the organization to abandon its completion. In his further testimony Enwegbara stressed that in most developing countries, the governments lack of necessary experience in fostering public participation, and often the exhibition of superiority to the participating public, by the implementing agency, tend to make EIA implementation an uphill task. The Osborne Dam project in Zimbabwe, was unsuccessful because conflicts between the implementing agency and the general public were not only unsettled, but were even allowed to degenerate to physical confrontation. In most of these developing countries, authorities tend to view public participation as a process that delays projects and makes them expensive. Besides, planners see public lack of project expertise, as justification to discourage its involvement in projects that normally affect them.

Shell should remember that local knowledge could be very useful in EIA realization. If it is the wish of SPDC therefore to ensure sustainable development, balancing economic progress with environmental care and social responsibility by listening and responding, is Shell not aware that communities which depend on the forest for sustenance have begun to complain about the adverse changes in the Gbarain field environment? Does Shell monitor their oil field environment? Is it in line with their statement of general business principles 2 to observe laws of countries in which they (SPDC) operate ... to give proper regard to health, safety and the environment consistent with their commitment to sustainable development. Principle 6 ... Shell companies have a systematic approach to health, safety and environmental management in order to achieve continuous performance improvement. To this end, Shell companies manage these matters as any other critical business activity, set targets for improvement, and measure, appraise and report performance. (SPDC 1989).

Ikporukpo (2005:2) notes thus:

“it is a common knowledge that petroleum exploration and exploitation activities have led to a lot of environmental damage. Even the oil companies accept this fact although their position has been that the damage is not as serious as to describe it as devastation. The oil multinationals realize that their environmental record is poor. As one of them put it: The company recognizes the gap between its intentions and its current performance. It is working hard to renew ageing facilities, reduce the number of oil spills in the course of its operation. The amount of gas that is flared and to reduce waste products (SPDC 1995) cited by Ikporukpo (2005:3).

Although the impact which oil spills have on the environment and livelihood of the people is well known, the oil companies until very recently argued that this is a necessary evil of development. What type of development?. In other words, a fundamental aspect of the problem has been that the oil companies have not behaved as responsible corporate citizens. Ikporukpo further argued that this apparent belief that development has to be centered around oil has, apart from other critical factors such as oil-induced environmental deterioration, adversely affected the local economy. Traditional activities such as fishing and farming are no longer attractive. In some cases education is also affected as it is perceived by some as a waste of time. Working as temporary staff in oil or oil contracting companies has become the attraction. The search for such opportunities and the consequent migration from rural areas has dampened development in the villages.

As a Company, SPDC has put in place policies to mitigate perceived adverse consequences of their activities on the environment. This plan is referred to as the Environmental Management Plan (EMP). The environmental management plan provides a delivery mechanism to address adverse impacts, to enhance project benefits and to introduce standards of good practice to be adopted for all project works. The EMP also lists the requirements to ensure effective mitigation of each potential biophysical and socio-cultural impact identified in the EIA. SPDC major projects are fully committed to the implementation of the Environmental Management Plan and the fulfillment of the commitments made in the EIA (see SPDC 2004:11).

There has also been a special focus on Health and Social Impact Assessment added to the environmental impact to create the total EIA mix, which marks improved quality. There are however some basic lapses, in the course of implementation. The Health Impact Assessment (HIA) and Social Impact Assessment (SIA) issued are not properly addressed... one other major drawback ... is that of the EIA report not being made available to some key stakeholders, worst of all the host communities. Another noticeable lapse is the former practice that did not insist on stakeholders participation. In the past, field data, is gathered. This is then taken to the open forum, where it is discussed. This is the only time when contact with stakeholders is made. But this is after the EIA must have been concluded, a time when it is difficult to accommodate the issues and the concerns of the stakeholders.

But in the new process, the stakeholders are engaged from the beginning. After registering the project, a scoping workshop is organized in which communities' representatives are invited. The paramount ruler, Community Development Committee (CDC) Chairman, Women Leader, Opinion Leaders and Youth Leader are invited to represent each community. That is five persons from each community. This way the people are given a feel of participation in the process. Also, Non Government Organisations (NGOs) and Community based Organizations (CBOs) that are active in the area are invited to the stakeholders meetings.

Government ministries and departments connected to what the project even if in a regulatory capacity, as well as SPDC and her consultants are also present. The

proposed project is then presented for the people to point their areas of interest. The whole essence of the stakeholders meeting is to accommodate them in the EIA process. It is after this meeting that a term of reference (TOR) is drawn up to guide the EIA. Also, in the past there seemed to have been a greater focus on the environment, the biophysical, while less emphasis was given the social and health aspects of the EIA. This trend has changed. In Gbarain-Ubie, the Social Impact Assessment (SIA) experts looked at the Social Impact and health Impact Assessment (HIA) of the projects. It was not just one consultant covering everything. Experts from diverse fields were brought to look at the various areas, and at the end of the day produced a reports.

There is therefore a conscious effort to ensure conformity with regulatory requirements of Federal Ministry of Environment, DPR, State Regulatory Standards, and international standards.

Company Policy for Sustainable Development

In a document (undated) ... the new approach SCD (Sustainable Community Development) SPDC has been involved with communities since 1937. In the 1960's Shell Petroleum Development Company of Nigeria Limited (SPDC) started to support agriculture development to improve the livelihood of communities in the Niger delta where we operate. In the 1980s, with a growing population, increasing rural infrastructural needs and declining government resources, communities turned to SPDC to do more. The company responded by including the provision of basic infrastructure such as roads, jetties, water and electricity in its community assistance (CA) programmes. Therefore, assistance with healthcare provision was included in the 1990s. Unfortunately, some of these projects were responses to short-term demands that did not always reflect long-term community needs and therefore lacked broad based support and ownership. However, the company did not see all the benefits the Community Development (CD) model would have brought to the communities. This was largely because shell operated the Community Assistance (CA) model side by side with the Community Development (CD) model. As such communities could not fully appreciate the longer-term benefit of the Community Development (CD) model as against the short-term Community Assistance (CA) model that was more philanthropic in nature and therefore unsustainable (SPDC document undated, page 2).

The document further said that an internal review panel in 2002 concluded that there was a need to develop new ways of addressing current and emerging social issues in such a manner that will:

- Promote sustainable social and economic development of communities.
- Partner with government and other organizations to deliver sustainable community development in the Niger Delta, and
- Ultimately, maximize oil and gas development revenues for the benefit of all stakeholders.

It was based on these recommendations the Sustainable Community Development (SCD) strategy was developed.

Community Perception of the EIA Process

The general perception of the communities in the Gbarain field is that they are not aware of the EIA process. It was quite evident from the interactions that the communities are never involved in the EIA process:

“We are told by NGOs that communities are supposed to give the oil companies the social licence to operate... Communities should also be involved from when projects are conceived to completion. We are yet to see it working in any community and this non involvement of communities is the cause of damages to our sensitive areas that support the livelihood of our people. The way our ecosystem is destroyed without a remedial action by the oil companies will continue to increase our poverty....”

Environmental Rights Action’s (ERA) investigation in the Gbarain field revealed that no proper baseline study was conducted by Shell. An official who claimed anonymity told ERA that:

we made use of consultants from the University of Port Harcourt. But we rejected their first draft for reasons I cannot explain. They brought a new draft which falls in line with the thinking of management and Wilbros was called to do the work. The rejected report ERA can reveal, had outlined the general nature of the terrain but was also deficient and flawed, lacking specific information on biodiversity. Shell’s rejection was more of convenience and economy than any genuine concern for the environment. An official told one of the consultants: “Una wan ruin Shell? Una no want make we progress?”

The completely watered down version which Shell accepted cannot pass any test as a baseline study, let alone an EIA (ERA, 1997:7). According to Felix Tuodolor an environmental activist and former President of Ijaw Youth Council (IYC) as reported in ERA (1997:8):

Shell did not do an EIA... Although Shell claims to be meeting international standards, any opportunity of making profits subordinates environmental protection to the dictates of economic exigency. The impact of oil activities in the Gbarain field also attracted the attention of the media. “The case of Gbarain oil field near Yenagoa, is possibly the clearest instance yet of how oil prospecting related activities fatally wound the environment of the area of operation. When the oil field was discovered in 1990, Shell contracted Wilbros to construct a road to link it up with the main Mbiama-Yenagoa Road. Unfortunately, Wilbros chose a route which ran through a shallow but large lake, bordered on both sides by rich timber and dense tropical vegetation. When it was eventually built,

the road resembled a dyke with only two short bridges. The effect was that the flow of water to large sections of the timbered area was cut off. Today, an area covering about 1000 acres of forest has simply died away.

In an interview with *Tell*, Kemedi Von, an environmental activist said:

“If an EIA had been carried out, it would have informed on the lay of the land and shed light on how to bridge the waterways to ensure unbroken water distribution to both sides of the forest (Tell 1997:29).

To confirm further the destructive activities of oil companies on land and environment, Constitutional Rights Project (CRP) visited the Gbarain field:

“One of the locations visited for the purpose of this report is the Gbarain field, operated by Shell. The situation in the area is certainly one of the most vivid illustrations of devastation caused, not just because there is oil activity but as a result of absolute indifference to the environmental consequences of oil production. After visiting the degradation... CRP visited the inhabitants... to obtain their own story on how the situation was affecting them. Their primary concern was that they have been deprived of their traditional economic activities. Before the coming of shell, the devastated area was not only their fishing site, but also the venue of an annual fishing festival, closely tied to their traditional environmental protection practices. Then on the other areas now cut off from seasonal flooding, they used to dig trenches in the dry season, which with the coming of the tides from the south became ponds filled with fish and other seafood. Then in the now devastated forests they use to pick the seeds of ogbono tree, an agricultural product in high demand all over the country, a highly valued source of income. They can not do any of these things any more” (CRP 1999:17-18).

According to a youth leader from Opolo, Mr. Morenia Enemia said that Shell did not seek the expert opinion of members of the communities in the area before proceeding to do these environmentally hostile works.

“If they had consulted us we would have educated them on the nature of our land. They call us illiterate even on matters of our environment. We would have told them where and how to put bridges or culverts and thus avoid this catastrophe... they have destroyed the habitat of our

fishes, our animals, our forests, and also farmlands. Does this mean that they do not know what is right and wrong?” (ERA 1997:8).

Manifestation of Environmental Degradation and Environmental Conflicts

This is captured in the report of the study in 1994 by Ecosystems (R & D) International, Lagos, on the lands belonging to Obunagha Community in the Gbarain deep oil field operated by Shell Petroleum Development Company of Nigeria Limited. The study confirmed that; “the major problems currently facing the people as a result of this road construction are;

- Severe and excessive flooding of forest and farmlands destroying food and forest crops.
- Permanent flooding of farmlands reducing the arable portion.
- Death of food and economic crops as well as other useful non-timber forest products (NTFP).
- Permanent flooding and ponding of lakes, swamp-pools, ponds preventing owners from harvesting them yearly.
- Reduced fish catch from lakes, swamp-pools and ponds.
- Blockade of easy and fast communication routes between Gbarain, Ekpetiama and Epie.
- General reduction in economic activities of the people.

The foregoing are harbingers of poverty and socio-political crisis in the area. Reduced arable lands means less farm produce and the destroyed fishponds and lakes underscore protein deficiency as well as role reversal and role conflicts. Because those who have over the years depended on fishing in these waters now compete for the scarce farmlands available. Yet others are thrown out of their traditional means of livelihood and now resort to unacceptable means of sustenance.

Table 4.1 Oil Spillage Trend (1970 – 1997)

Year	Number of Spillage Incidents	Quantity of Oil Spilled Barrels)
1970	1	150
1971	14	15,110
1976 – 1990	1,530	694,607
1991 – 1997	3,796	2,105,303

Source: extracted from World Bank Annual Reports, 1970-1997. Cited in Okpara (2004:32)

Some community members expressed their experiences.

Chief Jack Okelekele of Edepie Community (75 years)

He said the construction of the SPDC link road from Etegwe to Tombia in 1990 caused a lot of blockades due to the sand filling process, and resulted in environmental changes. Creeks were covered and water flows from the northern side instead of the left side. We urged Shell to pay. Investigators from Shell's Land and Survey Departments came and saw our complaints. We were invited for negotiations. Some communities were offered ₦20,000.00, others ₦10,000.0.

Chief I. B. Kwokwo of Koroama (79 years):

SPDC should be grateful because of our peace initiatives. We have heard reports of kidnapping and seizure of SPDC staff and equipment elsewhere, but our youths are peaceful. We are farmers and fishers. In 1990, Shell came to construct their link road. All Gbarain communities live on one side and nature is wonderful in draining water. This road was constructed by sand filling and we noticed water logging when the floods have not come up. We visited the forest to know why and found out that some creeks have been blocked and hence no drainage. We held a meeting with communities and letters were sent to Shell. We waited for some time and complained to a claim agent, MONISCO who visited the bush and confirmed our fears. The blocked creeks include Abanibagbele, Osomo, Inemu, Opurusabagba, Poi, Sabibi, Osoko Adi, Kaladunou, etc". This speaker died in 2004 without actualizing his dream.

Chief Boufuru of Okotiana (77 years)

Our farmlands are part of the Etelebou oil fields in Gbarain Kingdom. The road construction affected our lands and when Wilbros, refused to come for settlement, we used a photographer to snap all affected portions. Our communication routes are blocked, crops and ponds damaged and since then we have not been able to harvest them. People are chosen to front for the family. The case has been on since 1991 and has exhausted our finances. One has died while others are there". "We want a peaceful resolution of this matter.

Too bad, this speaker died recently without actualizing his dream of adequate compensation.

Madam Naseigha of Gbarantoru

"Before the construction of this road, I used to accompany my mother to inspect and harvest her shrimp traps. We used to return home every

alternate day, with three to four baskets of shrimps, which were either sold or dried for sale later. It is unfortunate that the shrimp channels are now blocked and even the few ones not blocked are flowing against the known shrimp movement. The result is that there is absolutely no catch any longer and that means hardship for the whole family”.

Mrs. Ileimokumo Okoko (Obunagha)

“As young girls in the ‘70s and ‘80s, we were buying clothes and other things with money got from the selling of ‘Ogbono’ seeds gathered from our forest. The construction of this road has caused the death of most of the ‘Ogbono’ trees and even the few ones alive have become impossible for people to reach them, because the creeks we used to ply have been blocked. One cannot gather ‘Ogbono’ seeds into bags and trek from very far distances to the village. With the destruction of this economic earner, young girls have no other decent means of making personal money. Even Shell is not employing them”.

Bubaraye Dakolo

Is an activist from Gbarantoru and director of Nun River Keepers, a community-based organization. He queried Shell’s massive excavation of sand from the Nun River bed for the sand filling of Shell’s access roads. He is piqued that the dredging activity in 1990/91 affected the course and current of the river and engendered shore erosion in Ekpetiama villages. Shell has not remediated the impact.

Issues Arising From the Impacted Gbarain Oil Field

Table 4.2 Claims by Communities and SPDC’S Offer

SUIT NO.	SPDC’S OFFER	CLAIMANTS DEMA	REMARKS
YHC/35/91	₦366,000.00	₦20,000,000.00	Awaiting settlement
YHC/36/91	₦138,000.00	₦2,950,000.00	Awaiting settlement
YHC/40/91	₦252,000.00	₦99,000,000.00	Awaiting settlement
YHC/41/91	₦252,000.00	₦49,500,000.00	Awaiting settlement
YHC/24/97	₦404,000.00	₦59,500,000.00	Awaiting settlement
YHC/35/92	₦252,000.00	₦24,500,000.00	Awaiting settlement
YHC/34/92	₦214,000.00	₦14,500,000.00	Awaiting settlement
TOTAL	₦1,878,000.00	₦269,950,000.00	

Source: Field Survey 2001 by Tari Dadiowei

In 2000, SPDC made moves for out-of-court settlement. Three meetings were held on 7th August, 2000 in Shell's office, Port Harcourt; and 14th and 18th August, 2000 in Shell's Yenagoa Liaison office. In July, 2001, SPDC prepared to pay amounts ranging from ₦100,000.00 to ₦400,000.00 (Table 4.2). The litigating communities in Epie and Gbarain Clans rejected the offer. *"It is the opinion of many that as far as 1991, when the road construction was in progress, we started our agitation and expressed fears about our environment, which was ignored"*, said a community member. It is against these proven facts of environmental degradation and the ensuing economic hardships that communities in the area severally and collectively under the aegis of Gbarain Deep Oil Field Landlords Association (GBOFLAS) demanded for fair and adequate compensations from Shell as law abiding citizens. There are about 10 issues pending in the high court of Bayelsa State in Yenagoa – in respect of the Gbarain access road construction by Shell. It is pertinent to mention that some community litigants have died while pursuing these matters.

The issue of resources and capacity to pursue the matters in Nigeria's judicial system against a multinational giant like Shell, equally compounds the communities' problems. The foregoing incensed an environmental and human rights activist Mr. Inemo Adaka, as he lashed at Shell:

"What the communities are asking for is rather inconsequential compared to their losses and what Shell and the Nigerian government gains. It is sheer wickedness to keep the people perpetually improvised".

In an interview with this researcher, Inemo Adaka, who works for Environmental rights Action (ERA), lambasted Shell for embarking on land dredging in the Okotiamia area, where Shell is constructing a road to her sites as part of the preparations for the drilling of new oil/gas wells for the Gbarain/Ubie Integrated Oil and Gas Project in Obunagha, Bayelsa state. He referred to the said dredging as "irreparable loss and environmental degradation". Such insensitivity to the Gbarain Environment seems not to have an end in sight.

Community Development Projects

SPDC's community development projects have become sources of worry and conflict in the Gbarain area. Most often such projects are not properly prioritised. Shell's policy of using only contractors that are registered with them (Shell) encourages community exclusion from such projects. Most times the community does not have such contractors and sees outsiders gaining undue advantages. At other instances, Shell unilaterally gives such jobs to community people who have disagreed with the community on project type. Also such projects are not conceived by the entire community and so are either abandoned midway or are not sustainable. The current water project for Gbarain clan being undertaken by SPDC as a mitigation measure for the proposed dredging of the Taylor Creek, to facilitate the Koroama Appraisal Well Drilling is a good example of improper conceptualization of projects.

SPDC's choice of MONO PUMPS were opposed and rejected, which made her opt for boreholes but without distribution round the community. How effective is this mitigation measure when people have to queue for hours on end to fill their containers, as compared to what used to obtain at the creek? Execution of community development projects have ensured cleavages in communities as favoured individuals are seen as sellouts and betrayers, because most often the larger section of the community feels shortchanged. The Gbarain water projects are yet to be completed.

More Oil Spills, Less Compensation

As communities in Shell's Gbarain oil fields struggle to cope with the effects of destruction of their forests and waterways, more oil spills have been ravaging the area; to add to the woes of the people. (see plate 1,2,3,4,5,6)

As Tari Dadiowei, a community member reports,

“an oil spillage occurred in Shell's Gbarain bulk line on September 16, 2003 while construction work by Chefy Nig. Ltd, believed to be an oil servicing company contracted by Shell for the bulk line construction was at work. The heavy equipment used were an Excavator with the inscription “SAIPEM” and D8 Caterpillar, when suddenly the machines stepped on an existing pipeline and ruptured it, causing an immediate sprout of oil spilling like champagne from the pipeline. The immediate impact was on creeks, vegetation, swamps and crops. Vehicular and human traffic was restricted around the Imiringi Junction. It spread rapidly through Siankpu Creek to Epie Creek. Worst affected communities include Edepie, Etegwe, Okutukutu, Opolo and Biogbolo as it spread to Ekole Creek, aided by the current from the flood and rains. A common tale of woes in the immediate communities affected included damaged fishing gears, economic trees, polluted waters, and deprivation of occupational rights to the fishermen, especially the women who use this season of shrimp and lobster catches to beef up their economy and protein consumption. Sadly enough, the communities have been awaiting compensation payments from Shell for the losses and damages these past years” (ERA/ FOEN 2005:22).

SPDC's field officials manipulate land survey data to the detriment of communities in respect of payment of compensations for land acquisition. On 10th December 2003, a member of a team comprising Ministry of Lands and Housing, Bayelsa State and SPDC officials that visited the Obunagha Community said that, “you (communities) can hire surveyors to confirm your hectares”. This informed the Tarapa family of Obunagha to survey their lands as Mr. Ebitimi Okoko, a member of the family, said that the family surveyor produced a startling revelation that they (Tarapa Family) have been short-changed by the SPDC Surveyor. That their land was under-declared by over one hectare.

It is noteworthy that Shell insists on paying One Million Naira per hectare. The Tarapa Family has since rejected this offer saying it is ridiculous when compared to what obtains in Yenagoa, the State capital. A plot of land sells for between ₦250,000.00 to ₦700,000.00, depending on the location and Gbarain is part of the capital territory. Quoting a document from Shell “Oil and Gas Seminar for Local Government Chairmen in Bayelsa State”, May 13-15, 1999.

Determinants of Compensation

- A. Vegetation – Economic crops and economic trees. The rates are derived from a combination of
 - farm gate prices
 - replacement value of the crops/trees
 - income generating capacity
 - inflation trends
- B. Structures (Houses, Fishponds), etc. The value of these is determined by the prevailing market value of the asset.
- C. Loss of use.

This is compensation to the third party land owner for giving up use of the asset and is determined by the prevailing market value of the land (e.g. the price of a plot of land in a particular location). Ebitimi Okoko queried with reference to Shell’s document that it is glaringly evident that Shell is using the ignorance of the people to cheat them, which must be resisted now. They have vowed to resist attempts at intimidating or deceiving them to accept such peanuts from Shell, and that means more problems for the gas gathering plant as Tarapa Family in Obunagha are major stakeholders – landlords of the project.

Table 4.3 Conflict Flash Points in the Gbarain Field Communities

Parties	Issues	Remarks
Ogboloma	Compensation + closure of Flow Station by youths	
Polaku, Koroama vs Shell	Devastation of environment, blockade of creeks, swamps, lakes, EIA, etc.	Matter in Court discussions are progress for out settlement
Obunagha vs Shell	Devastation of environment, blockade of creeks, swamps, lakes, EIA, etc.	Matter in Court discussions are progress for out settlement
Obunagha, Okolobiri, Nedug Agbia vs Shell	Devastation of environment, blockade of creeks, swamps, lakes, EIA, etc.	Matter in Court discussions are progress for out settlement
Okotiana vs Shell	Devastation of environment, blockade of creeks, swamps, lakes, EIA, etc.	Matter in Court discussions are progress for out settlement
Amarata, yenizue-Epie, Agud Epie, Igbogene, Etegwe, Okutu vs Shell	Devastation of environment, blockade of creeks, swamps, lakes, EIA, etc.	Matter in Court discussions are progress for out settlement
Akenfa vs Shell	Compensation	
Igbeinbiri Family of Ogboloma Akenfa	Land dispute at Etelebou Oil Field	Matter in Appeal Court
Biogbolo, Ede-Epie, Okutukutu, etgwe, Yenizue, etc	Rupture of pipeline (Gbarain-Etelebou Trunk Line) linking Kolo Creek Station.	Pollution of farmland, forests, and only source of drinking water in the Clan. Shell accepted responsibility, but no remediation yet. Incident occurred on September 16, 2003.
Tarapa Family (Obunagha) Gbarain Clan v Ayainbiri Family (Gbarantorou – Ekpetiama)	Land ownership at the Gbarain oil field operated by Shell	Supreme Court on July 16, 2006 ruled in favour of Tarapa Family of Obunagha
Tunama Family v Tunama Family (all of Obunagha)	Land ownership at the Gbarain oil field operated by Shell	Matter in Court
Yenzue-gene vs Shell	Shell faced community hostility caused by Gbarain Oil Field Link Road construction which devastated their source of livelihood.	Harassment by some members of community men at the site.
Okutukutu and Etegwe Women	Protest in November 1991 due to	Intervention by the

Shell	flooding of farmlands, caused by S Gbarain Link Road construction.	Administrator, Yen LGA in 1991
Obunagha Community, 1992	Lack of social responsibility by Shell while c Gbarain I.	SPDC and Govt ag to construct Igbogene-Polaku Roa
Adiawaribo family Okoniwa family (Obanagba V Ungbouwa family (Obunagha)	Ownership of land	Matter in court

Source: Tari Dadiowei, 1994, 2006

Effectiveness of the EIA Process in the Oil Field

SPDC's claim that they have concern for the environmental issues arising from their activities is not demonstrated at the Gbarain area. The earlier mentioned access road construction was done without an environmental impact assessment (EIA). Going by Shell's claims in the corporate social responsibility area, it is sad to note that no proper EIA was carried out for that project. Although SPDC has said elsewhere that EIA was carried out, communities are not aware of it and that explains why there are no adequate remediation measures.

Reacting to a presentation made by Gbarain Deep Oil Field Landlords Association (GBOFLAS) to Shell when the former paid courtesy call on Shell, Port Harcourt, on 25th September 1997, Shell, in a letter dated 20th November 1997, stated that:

“One of the requests you made was to have a copy of the EIA of the Gbarain Oil Field. We wish to confirm that an EIA was conducted for the field but such documents can only be released by the Department of Petroleum Resources. You may contact them for the document....”

The questions are many. Why was the document not sent to the communities whose environment receives all the assault? Why were the communities not involved in the study process? What were/are the remediation measures?

On the ongoing activities at the Koroama Appraisal Well, the issue of EIA almost caused confusion in Gbarain Clan. Some elites genuinely demanded for an EIA, but Shell was prevaricating. Rather, the community was goaded into signing an MOU with Shell at the instance of government, on the 18th of December, 2004. The then Special Adviser to the Governor on Oil and Gas, Chief T. K. Okorotie retorted as follows:

“There is no time to consult everybody. I am here to carry out the mandate of the government and coordinate the signing of the MOU on 18th December 2004 between Gbarain and SPDC in respect of the Koroama Appraisal well.

This Well drilling activity entails dredging the Taylor Creek and construction of access roads. The level of environmental insensitivity is captured by various measures Shell has adopted to downplay on the effects of her activities in the area. The gas-gathering project EIA for the Gbarain/Ubie Integrated Oil and Gas Project was condemned and rejected by the communities and the local government councils, because it never reflected the realities on ground. People only heard the announcement on radio on the morning of the event and only managed to attend.

The report was described as a “desktop” product and so could not predict accurately. Interestingly, the Federal Ministry of Environment has asked Shell to carry out separate EIAs for the Field Logistics Base (FLB) and dredging activities, in a letter dated 17th May, 2005. Another issue in respect of the said EIA is that it is hoax. For instance non-study team members are mentioned as those who carried out the study. Mr. Tari Dadiowei, Coordinator, Conflict Resolution Trainers Network and a Director of Biosphere Resources Monitors, an NGO has challenged Shell for including his name as one of the study group members and EIA preparers. All these are pointers to the fact that SPDC is more interested in satisfying a statutory provision instead of truly caring about the consequences of its activities in the environment.

Conclusion

It is quite evident from this study that oil activities have changed the ecological balance of the Gbarain oil field communities. According to Dickson (2005:112) the activities of the oil industry have not only changed the ecological balance of the Gbarain, Ekpetiama, Epie and Atissa communities and dislocated the social and economic culture of the affected communities, they have also posed a grave threat to their very future and existence. These activities and their impacts largely explain the protests and violent conflicts that are prevalent in the area.

Identified negative environmental impacts resulting from oil exploration and exploitation activities in the Gbarain oil field communities include:

- Severe or excessive flooding of forest and farm lands destroying food and forest crops seasonally.
- Permanent flooding of farmlands thereby reducing the arable portion available for use by individuals and communities.
- Death of food and economic crops as well as other useful Non-Timber forest products (NTFP).
- Permanent flooding and ponding of Lakes, Creeks, Swamp Pools preventing owners from harvesting them yearly.
- Reduction in games and wildlife populations in the forest
- General reduction in the economic activities of the people.

According to the UNDP Niger Delta Human Development Report (2006:73-74) The world today recognizes the importance of environmental sustainability to the

development of nations. Goal 7 of the MDGS – “Ensure Environmental Sustainability” – seeks to reduce environmental degradation arising from natural and manmade causes as well as inefficient use of resources, and to improve environmental management through private sector participation and environmentally friendly technologies for the Niger Delta People, as for many poor rural and urban populations, environmental sustainability is fundamental to their overall well-being and development. The environment is important to people living in poverty not only because their existence to a large extent relies on subsistence endeavours, which depend on natural resources, but also because they perceive their well-being as tied to their environment in terms of livelihoods, health, vulnerability and the ability to control their lives. Poorer people are more vulnerable to changes in the environment, in part because social, political and economic exclusion means they almost always have fewer choices about where they live. They bear the brunt of natural hazards, biodiversity loss and the depletion of forests, pollution (air, water and soil), and the negative impacts of industrial activities. Oil and gas extraction has led a severe impact on the delta’s environment – and on poor rural and urban communities. For them, environmental sustainability is fundamental to well-being. Several studies on the poverty – environment nexus (e.g. World Bank 1999, Arnold and Bird 1999 and DIFID, 2002) demonstrate that poor people are usually the worst hit by environmental problems. Environmental factors are implicated in about 20 percent of the cases of disease in developing countries, for example. In Nigeria, water – related diseases constitute about 80 percent of the total disease burden (NDHS 2003). Many of these illnesses are linked to environmental conditions that cause water contamination. When people have inadequate access to safe water, or have to rely on polluted sources to survive, diarrhoea, cholera and vector – borne diseases such as malaria are the inevitable result. Environmental management issues therefore are highly germane to development and to any poverty reduction strategy for the Niger Delta region, where nearly more than 60 percent of the population depends on the natural environment – living and non – living for their livelihoods.

Over sixty percent of the people in the delta depend on the natural environment – living and non – living for livelihoods. Without appropriate environmental management initiatives, both the rural and urban poor suffer from the three key dimensions of human poverty – insufficient livelihoods poor health and vulnerability. According to the UNDP report “Today in Brazil, indigenous people account for only 0.2 percent of the total population, and their land make up about 12 percent of the national territory. During the past few years, their existence has become ever more precarious as a result of the increasing invasion of their territory by people ready to confiscate land exploit natural resources. The Report further said that “until the period after World war II, a delicate balance existed between the human population of the Niger Delta and its fragile ecosystem. The exploitation of natural resources did not go beyond the search for medicinal herbs, fuel, game, fish and construction materials. This was sustainable because the available resources outmatched the needs of the population. Today the Niger Delta environment has changed and continues to change rapidly ... Industrialization, urban development, and oil and gas exploration and exploitation have infringed on the people and their environment, leading to the opening of previously pristine ecosystems. This has resulted in the alteration of habitats, biodiversity loss,

deforestation and pollution (Amakiri, 2005). The present study also shows the serious degradation of the environment which has made communities in the Gbarain oil field to complain bitterly about their future. According to Dadiwei (2003), in 1991 the women from Okutukutu/Etegwe in Epie Kingdom protested over the flooding of their farmlands due to the blockage of the Creeks, Lakes, Swamps when Wilbros was contracted by Shell Petroleum Development Company of Nigeria Limited to construct the Gbarain Link road for accessibility to SPDC locations. In 1992, women from Obunagha community in Gbarain clan also protested over the lack of social responsibility by Shell while drilling Gbarain I. They demanded for the provision of clean environment conducive for survival, jobs for their children, safe drinking water and hospital. The UNDP report further said "while natural hazards are clearly responsible for some of the environmental impacts, industrial activities have no doubt aggravated the situation" (as can be seen in the Gbarain field environment - emphasis mine). There is a strong feeling in the region that the degree and rate of degradation are pushing the delta towards ecological disaster. Poverty appears to be the major grievance expressed by the people. The communities frown at the level of infrastructural development in cities outside the Niger Delta and wondered when positive peace will be achieved in the Niger Delta. Ogbogbo explains the situation this way:

The lack of infrastructural facilities, portable water, electricity, roads, hospitals, etc. inspite of the huge revenue derived from its bowels has led to conflictual relations between the inhabitants and the Federal Government of Nigeria. Furthermore, the negative consequences of exploration and exploitation of crude oil from the Niger Delta environment has resulted in pain, misery and abject poverty. This has resulted in considerable disquiet in the Niger Delta to the extent of threatening the economic, livelihood of the nation and by implication, its existence as a state. Ogbogbo(2003:83).

There is evidence, for instance, as contained in the report of Dr. Pius Okigbo who headed a panel to investigate the oil revenue which accrued to Nigeria during the Gulf War of 1991 that some \$12 billion dollars in oil income could not be accounted for. In such a situation where resources taken from the Niger Delta are not only out of the management of the host communities but are being fritted away irresponsibly, it cannot in any way be expected to engender peace in the Niger Delta, especially when the communities watch their environment and source of livelihood being degraded, and see themselves sinking into unrelieved poverty. (CRP (1999:37).

Festus Iyayi explains that the roots of poverty are located first, in the way that relationships have been defined around the oil deposits in the Niger Delta; second, how as a consequence of this these oil resources have been exploited and thirdly, how the results of such exploitation have been distributed between the interests involved... (Iyayi 2003) Iyayi contends that any effective strategy for poverty eradication in the Niger Delta must meet the following requirements:

- (1) It must address the key issues in poverty, the nature of economic and political relationships and their rooting in injustice and in the rapacious exploitation of people and nature;
- (2) It must be developed by the most progressive forces, or those within the community who are most committed to the welfare of the poor.
- (3) These progressive forces must be literate enough to understand the various possibilities, options and scenarios that re-open in the future;
- (4) The community of the poor must as a whole contribute their ideas and concerns to the project, and
- (5) It must be implemented within a structure that leaves control in the hands of the community of the poor and its progressive forces Ibid.

It was also evident from the study area that several protests have been carried out between 1991 to date mainly to tell the Government and the multinationals about the adverse impact of oil exploration and exploitation activities on the people. As Ogbogbo(2003:83) points out:

“the various verbal protest and agitations have elicited little or no attention from those at the corridors of power, while violent protests (at times, peaceful) are crushed with extreme brutality”

According to him where such protesters were not killed, maimed or raped, they were, hunted into exile. All this has resulted in human rights abuse against the people of the Niger Delta. Ogbogbo identifies three legal issues that are directly in the domain of human rights, which have arisen out of the situation in the Niger Delta:

- (1) The ownership and control of the resources within the Niger Delta area;
- (2) The environmental degradation arising from exploration and exploitation of oil and gas companies; and
- (3) The reaction of Government and the multinational oil companies to the protests and agitations of the host communities. (Ibid, P. 84)

As stated above environmental degradation arising from exploration and exploitation of oil and gas companies have been the major source of conflict between the Gbarain oil field communities and Shell. This has led to several litigations as pointed out above and further polarized families and communities. The intensity of intra family conflicts because of the Gbarain/Ubie integrated oil and gas project was well pronounced during the period of this study, and efforts made to resolve the impasse has not been successful so far. Presently, there are five of such suits in different courts in Yenagoa, involving different families in Obunagha where the project is sited.

The study also reveals that environmental laws are not implemented. It was observed during the interactions with some experts on environmental issues that there are enough laws to safeguard the environment but adduced the problem to lack of commitment, dependency on oil companies for logistics support and lack of compliance,

monitoring and enforcement by Federal and State Agencies responsible for regulating oil activities.

As the World Bank points out:

"Oil companies in Nigeria are under Federal jurisdiction. The Federal government is both a partner in all oil activities through NNPC, and is required by Federal law to enforce environmental compliance of oil operations through the Department of Petroleum Resources. This situation has resulted in the government inadequately regulating oil pollution while at the same time being part to much of the Delta... The major constraints impending reduced oil pollution are (i) the conflict of interest for the Federal government being both a partner in oil activities and the regulatory body. (ii) no requirement for community participation in planning and development of oil activities. (iii) very limited ability of regulatory institutions to monitor pollution. (iv) low compensation rates for damage to property; and (v) lack of enforcement of environmental regulations (World Bank 1995:53)"

The report further said:

to manage ecological issues, the oil companies have set up environmental divisions. Shell, for instance has environmental divisions stationed at its Niger Delta headquarters in Port-Harcourt and Warri. The oil companies commission environmental impact assessments of all their major projects, which are usually performed by the environmental consulting units of local universities. The quality of this work is reported to be highly variable field work is usually limited to two weeks, which is completely inadequate to understand an area considering the absence of other studies. Although the oil companies have generally developed adequate environmental policies, implementation has lagged (World Bank, 1995:52).

According to Oluwole Akanle (cited in Lawrence et al 2004: 163) "Our suggestion is that if the environment officers are well paid, given incentive to work, which includes adequate food, cloth and shelter for them, then the idea of sustainable development could be achieved in Nigeria." Another problem according to Okorodudu-Fubara, is that:

"The major constraint at the state and local government levels, can be said to include, inadequate funding for effective management of the environment, lack of enforcement, low level of community participation in process leading to policy making on community environmental protection; overlapping responsibilities, between federal and state environmental protection agencies, environmental standard not adequately publicized etc. (Lawrence et al 2004:164)"

The study also reveals the issue of compensation especially during land acquisition and damages caused by the activities of Shell. It was quite evident from the study that compensation has brought about sharp divisions in the families, suspicion of community and family leaders. It is the feeling of the community(s) and family leaders that the companies usually dictate the amount and when millions are mentioned they (communities) quickly accept the offer because of ignorance with government as collaborators. The communities stressed that those from the side of government and oil companies who owns no land are usually the beneficiaries at the expense of the communities and landlords. This has pitched the communities and families against the government who are demanding that they (communities / families) be allowed to deal directly with the oil companies.

Pearce argues that an important aspect of valuation is that monetary value is seen from the perspective of ordinary local people and not just that of outside experts. Such attempts at valuation should take account of indigenous knowledge to better understand the relationship between natural resources and local people to whom the project should be tailored. From the perspective of sustainable development it is hard however to estimate the needs of future generations in monetary values to be balanced in terms of costs and benefits (Morvaridi 1996: 17 -18).

According to Onosode (2003:97) Compensation has been a vexed issue at the root of much of the discontent, litigation and violence. Compensation should promote sustainability and not to be seen as the price of degradation. In tracing the basic motive force of militant resistance in the Niger Delta, Owugah argues that:

The oil which brought so much wealth to the nation and to those in power brought much poverty, disease, death, loss of livelihood, etc to the people of the oil-bearing areas. In spite of this high cost of hosting the oil industry, the oil bearing communities are developmentally an eyesore, denied basic amenities and their indigenes are denied employment in the industry. Furthermore, their demands for compensation for damages to their farmlands, crops, economic stress, fishing lakes and equipment, etc are generally treated with levity and even dismissed as irritants on occasions. Even the hopes they may have had in the constitution have been laid to rest as it failed to adequately address issues of crucial importance to them (Owugah 2000: 106).

It was also a revelation from this study that there was no community involvement in the EIA process in the Gbarain field communities. I demanded to know from the communities and many feigned their ignorance. Communities are not part of the analysis of samples collected and therefore the consultants can do anything to satisfy their masters (oil companies) to keep the relationship strengthened.

In a paper presented by Joshua Pepple in 2000 at Abuja, he identified that; "EIA process in the Niger Delta communities has become one of the most controversial issues in

news media. The conflict involves the multinationals especially the oil and gas companies operating in the area, government officials responsible for making policies on environment and the communities... the experience of the Bonny Community in most of the EIA's prepared for the area further shows that, the community participation represented in the EIAs were mere assumptions and represent lack of hope for the community. The community has always been deceived by the proponents of the projects (Multinationals) aided by government officials... According to Pepple Joshua, the benefit of community participation in EIAs especially in the Niger Delta will outweigh the problems. Although problems in community participation will exist, it is the belief of the author (Pepple Joshua) that the problems of community participation are not inherent in community participation itself but instead, is a result of treating community participation as mere public hearings, inquiries or public consultation by the multinationals who carry out these developmental projects and aided by government officials.

Empowerment of the community suggests access to information, technical competence, compensation for time and effort and above all, the right to participate in decision-making. Simply providing this information through a forum, hearing or consultation will not suffice, the community must participate in all aspects of the EIA process. According to Pepple ... the experience of Bonny Community further shows that the multinationals and government officials often view this type of empowerment as a waste of time and money. However, the cost of such an investment in the process as a whole, is likely to be far less than would be incurred in the long run by an escalation of conflict and consequent deterioration of the whole decision-making process. A good (fair) decision is the real goal of community participation in EIA process. Environmental impact assessment (EIA) is a necessity to determine the effect of a proposed development action which requires the analysis of many diverse subject areas including the environment, social and economic impacts, health and public opinion. "Listening to public opinion at an early stage is a good way, to avoid crisis and conflicts" south-south express, Friday, March 1, 2002 p.10. EIA thus aims to ensure that the possible negative impact of a proposed development are predicted with possible mitigation measures to ensure environmental sustainability. The study identifies lack of information to local communities, degradation of the peoples sources of livelihood (environment) lack of awareness seminars, lack of awareness campaigns on how to manage the environment, preference for profit by the proponents, poor monitoring by regulatory agencies, lack of community involvement, divide and rule system operated by oil companies as some factors that have led to the non observance of the environmental guidelines by oil companies in Nigeria. Making a remark during the EIA review panel meeting on the proposed Soku-Awoba to Bonny gas development project by SPDC on Tuesday, February 5, 2002 in Port-Harcourt some community elders said they were not consulted during the assessment, others pointed out that Shell, through its consultant, did not visit the location of the project. Mr. Pleasant Braide chairman Degema Local Government Council noted that the consultant only went into research on papers to get the EIA report ready. Commenting also the chairman INC, Bonny clan Mr. Donald Hart said he was not aware of the extensive consultation as claimed by the report. It was also reported in the Tide of Thursday, June 14, 2001 pg. 11 that an environmentalist and representative of the Bayelsa state ministry of environment, Mr.

Ebisomu Agedah as having faulted the EIA report proposal for the offshore gas gathering project of shell petroleum development company. According to Agedah a project such as the offshore gas gathering which will impact negatively on the people of his state (Bayelsa) failed to involve the Bayelsa State Ministry of Environment.

He further said that SPDC failed to consider all stakeholders in the data gathering, no public forum to enable the people make contributions. This lack of consultation is the result of high intensity of environmental impact in the Niger Delta communities, which has forced them (communities) to take the laws into their hands in the renewed war for sustainable development and environmental justice. The Gbarain Oil Field - a stressed environment in a dire need of urgent redress illustrates how the interests of the local people and the environment are coming into conflicts with the interest of the global oil industry. The study calls for a revision and enforcement of compliance to environmental guidelines and standards in the industry and stressed the need for public participation as a strong tool for raising the level of environmental impact assessment in Nigeria. It is also the view of women that for EIA to be successful women should be in the main stream because they carry majority of the burden, work hard and preventing them from free participation at the community level will be a serious impediment to the credibility of co-operation in development.

It is quite evident from the study that, it is difficult for communities in the Gbarain field to achieve sustainable development without addressing the issue of poverty or wealth creation first. Whatever the yardstick used for measuring development, if the environment is significantly being degraded and the degradation is not accounted for, then development will be wrongly measured. The implication of this for managing development will be greater the greater the environmental degradation according to El Serafy Sala, (1995). Environmental impact assessment is therefore very essential within the context of sustainable development planning. Rational use of natural resources, understanding of the environmental characteristics especially the socio-economic environment will give a guide to the future since according to Redcliff (1990): "sustainable development... is either about meeting human needs, or maintaining economic growth or conserving natural capital, or about all three. There is, therefore, likely to be conflict between what is sustainable at the global, national, regional or project level because what is sustainable at one level, may prove to be damaging or simply unrealistic at another". Therefore, the following propositions are vital towards the sustainable development of communities in the Gbarain oil field and indeed the Niger Delta region of Nigeria that is seriously being eroded.

Company Policy

- should behave as responsible corporate citizens by ensuring compliance to international standard.
- helping to develop the host communities through training of the people; developing their skills in agriculture and talents that could economically empower them.
- ensuring the implementation of Local content in their projects.
- provision of employment

- giving financial security for agriculture, cottage industry and co-operatives for communities that are impacted
- communities/individuals in the Niger Delta be made shareholders in the oil industry
- development of a blue print for the Gbarain oil field communities
- oil companies should be made to establish modern skills acquisition and entrepreneurship development centres
- carry out a post impact assessment in the Gbarain field with a possible compensation and remediation
- adequate consultation in EIA, and train communities on environmental education
- monitoring of oil and gas activities
- resolve environmental conflicts

Regulatory and State Policy

- effective compliance monitoring
- carry out a post impact assessment of communities in the Gbarain oil field with possible compensation and remediation abrogation of unjust petroleum laws
- re-engineering the economic, environmental, social and political systems towards sustainability.
- sound EIA principles, practice and procedures need to be developed and made part of the curriculum early in the educational process so as to raise environmental concerns and awareness among the citizenry.
- enforcement of all existing laws and regulations on the environment
- auditing by appropriate government agencies.
- government should also carry out environmental impact assessment in their projects they should be responsive to their laws.
- environmental education

Community Practice

- be involved in environmental impact assessment of projects from conception to implementation.
- monitoring of environment and demand for a post impact assessment.
- all affected communities should be encouraged to institutionalize a community development trust fund for priority development projects (e.g. the Alaska Permanent fund which is one of the oldest natural resource funds which is invested in stocks, bonds and real estate. Established in 1976, it has grown to US \$25 billion. The Nunavut Trust in Canada illustrates not only how revenues can be shared, but also how a community can be compensated for the negative external consequences of oil and mineral extraction, and can turn this compensation into local development. Establishing trust funds at the local government and community levels will signal to the youths of the region that their future is not mortgaged by current exploitation of exhaustible resources. (UNDP Report, 2006: 150 – 152).

Non Government Actors

- environmental awareness campaigns to ensure that impacted areas are remedied.
- effective monitoring of changes in the environment to ensure compliance.
- environmental NGOs should take active part in environmental impact assessment for accuracy of prediction, transparency and credibility.
- NGOs should carry out a comprehensive post impact assessment of oil producing communities to ascertain losses incurred as a result of oil exploration and exploitation in the Niger Delta.
- to train CBOs and community leaders on natural capital (resources) management.
- teach communities EIA Process.

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**Plate1: Permanent flooding and its effects on the vegetation and other ecological hazards in the Gbarain oil field.
(Photo Tari Dadiwei)**



Photo Gallery



**Effect of the Gbarain bulk line oil spill on the environment.
(Photos Tari Dadiwei)**



A collapsed bridge at Inemu Creek in the Gbaran Oil Field which occurred on the 29th of September, 2000, during the flood season blocking communication routes and fishing rights.



A collapsed bridge at Inemu Creek in the Gbaran Oil Field which occurred on the 29th of September, 2000, blocking communication routes and fishing rights. This photograph was taken during the dry season.

Snap shots taken by Gbaran Deep Oil Field Landlords Association in 2000.



Sprout of oil spilling like champagne from the Gbarain/Etelebou pipeline at Edepie/Imiringi junction on 16th September 2003



Gbarain/Etelebou pipeline spill at Edepie/Iringi junction on 16th September 2003 affecting vegetation and aquatic life.



**Effect of the Gbarain bulk line oil spill on the
vegetation.**

(Photo Tari Dadiwei)