



ECO-LIFE SUSTAINABILITY MARKETING PRACTICE: THE POSITION OF OIL-FIRMS IN AGRICULTURAL PRODUCTION IN NIGER DELTA NIGERIA.

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ABSTRACT: *This study was carried out to examine the extent to which the Eco-Life Sustainability Marketing Practice of the Oil Firms: Shell BP, Agip Oil Company, and Elf Oil Company have improved the agricultural productivity of the oil-bearing communities in Niger Delta. A descriptive survey research design was employed in this study. The population of the study was 37,965,391 drawn from the Niger Delta States based on which, a sample size of 400 respondents was determined with the use of Taro Yamane's sample size determination techniques at 0.5 percent level of significance. Purposive sampling procedure was employed to enable the researcher to select the representative sample elements of the population interest from relevant respondents who have adequate knowledge of the study under investigation from the different strata that makes up the population of the study. A structured instrument for data collection containing twenty (20) item questions was used for the study. The face and content validation of the instrument was obtained through the judgment of experts. A test-retest method was used to determine the reliability of the instrument. The reliability index of .83 was obtained. The data collected for the study were analyzed using the mean score test and the percentage test method to answered the research questions; while the Z-score inferential statistics was used to test the null hypothesis at .05 level of significance. Results obtained revealed that "Eco-Life sustainability marketing activities of the oil firms does not significantly improved agricultural crops production, green agricultural market, marine agricultural economic production, and agricultural land fecundity for food production in the oil-bearing communities in Niger Delta". The implication of this finding is identified in the reality that, "Oil firms' Eco-Life sustainability marketing activities was considered to lack the needed proactive improvement content values, and if effective ethical based Eco-Life sustainability marketing effort is not employed - to create an improved sustainable environmental treasure; "Oil firms might experience unpredicted operational interruption by the oil-bearing communities". It was therefore, recommended that oil firms should consider it necessary to employ proactive Eco-Life sustainability marketing efforts that considers ecological life value, and agricultural food production in a more ethical and responsible manner in its oil production activities with the socio-economic view to sustain the agricultural economic wellbeing of the oil-bearing communities in Niger Delta.*

KEYWORDS: Eco-Life; Sustainability Marketing; Agricultural Production; Oil Firms; Niger Delta.



INTRODUCTION

It is obvious to understand that production firms rest its oasis on real life existence on the ecological system. This implies that production of sustainable values are deduced from natural protection and sustainability of Eco-life. Therefore, complete destruction of the eco-system is the destruction of natural marketing values. Sustainability of environmental based ecological system is driven by sustainability marketing considerations the focus on protecting the wellbeing of the consumers and their related ecological interest. The marketing intent in oil production is not expected to destroy the flora and fauna as contrary observed by oil firms generating oil spills and gas flaring activities in Niger Delta. This add meaning to the fast growing trend of environmental threats and lots of damages done on the ecological system by the oil firms.

On a large scale, this has not only attracted the World attention towards healthy concern for environmental protection and sustainability, but has also extended some degree of responsiveness towards the preservation and improvement of the flora and fauna. In this trace, the World environmental concern to sustain the socio-economic agricultural values in the oil-bearing communities from harmful destructions of the ecosystem was prominent. This resulted from oil pollution that adds meaning to the reality that “in the past fifteen decades, the multinational oil firms operating in Niger Delta and the government has given little or less attention to issues of environmental protection and sustainability that destroyed the ecological system in the region (Ekpu, 2010)”. Consequently, the seeming weak practice of Eco-Life sustainability marketing by the oil firms was traced to oil firms’ engagement in incessant oil spills and gas flaring activities. This on a large scale has caused great deals of harmful destruction of the ecological system.

In line with this, the Eco-Life sustainability marketing practice of the oil firms was designed to focus on marketing effort of sustaining the socio-economic wellbeing of the host communities from harmful effects of production process or service activities that poisons the consumer citizens. The drive to ensure green Eco-Life sustainability marketing activities of oil firms, centered on best approach protecting, improving, and preserving the ecological system in the process of oil production or oil service related marketing activities. To this end, Eco-Life sustainability marketing practice could be viewed to be optimal and sustainable when the oil production process in an environment is devoid of oil pollution.

On this note, the harmful destruction of the socio-economic agricultural yields in oil producing communities in Niger Delta does not only appears to have gone comatose, and highly devastating by unregulated oil pollution impacts. Thus, the gross rate of socio-economic neglect over the well-being of the host community was undoubtedly remarkable in Ekpu (2010) who explained that oil producing firms in Niger Delta region has done a great deals of harm to the environment by destroying the natural values of the ecological system and leave the consumer citizen helpless. In line with this reality, it is observed that oil firms that engage in activities of oil production, are also expected to ensure that their production process are not harmful to the ecological system; since the oil firms its self, workers in the firms, consumers of petroleum products, and the host society survives on the natural or green values of the ecological system for their existence. The Eco-Life perspective of marketing practice is therefore design to consider the well-being of the consumer citizens, the environment and the host community in which they operates.



Eco-Life sustainability marketing practice therefore, require all production firms and service oriented firms to see the wellbeing of their final target consumers and the host-stakeholders as the most paramount for protection. This will help to sustain their well-being from all related harmful effects of oil pollution that might destroy the consumers' ecological environment. This was not out of context in the view that oil firms' Eco-Life sustainability marketing practice has been questionable for failure to maintain the eco-environmental marketing rules, which states that production and service oriented firms should seek for best ways of protecting, sustaining and preserving their green environment, the socio-economic well-being of the consumer citizens, and its natural environmental contents from the harmful impacts of their production process or service activities. This does not only works well for the good of the oil firms, the final consumers, but also for the society that gives the firm the succor to operate.

To be more exact, this view projects the fact that, oil firms which has been engaging in incessant oil pollution hazards, has not in any form helped to protect, sustain and preserve the socio-economic values of the ecological system. For this and similar reasons, Bomi (2010) opined that oil companies in Niger Delta has failed woefully to protect and preserve the wellbeing of the ecosystem. Consequently, the ecological green contents of the environment were destroyed based on the unwillingness of the oil firms to protect the economic interest of the host consumer citizens.

Similarly, Eco-Life sustainability marketing practices could be viewed as the marketing practice that seeks to protect, sustain and preserve the environmental well-being of the consumer citizens and the host community in which it operates. Also, individuals or firms that practice Eco-Life sustainability marketing engaged in marketing activities that consider the protection, sustainability and preservation of the ecological system essential, and indispensable to their production process and service activities. According to Fayifu (2006), business organizations and individuals survive and exist on the benefits or assistance of the ecological system which sustain human lives and their source of livelihood. Oil firms are required by this thrust required to engage in eco-life sustainability marketing activities for the purpose of avoiding harmful actions involving in oil production or service activities that will destroy the ecological system in its operational environment.

Contrary to this marketing practice, oil firms operating in the Niger Delta appears to have grossly undervalue the practice of Eco-Life sustainability marketing. This on a large scale have rendered the agricultural economic well-being of the consumer citizens or members of the host society useless. In a more strong term, environmental protection agencies, activist, and the United Nation Environment department condemned evidence of consistent oil pollution and gas flaring activities of the oil firms in Niger Delta for engaging in the destruction of the healthy environment and its ecological values (Williams, 2000). Also, the seeming endless destruction of the green ecological yields in Niger Delta and the oil production activity of the firms was not only contrary to the guiding rules of Eco-Environmental Marketing, which is popularly known as "Eco-Life sustainability marketing or Eco-Green Marketing," but completely destructive to the socio-economic wellbeing of the locals. This gave rise to the rhetoric question, asking the extent to which the oil firms' Eco-Life sustainability marketing practice has sustained agricultural production in oil-bearing communities in Niger Delta". In response to this, Ekpu (2010) opined that oil firms in Niger Delta has exerted enough efforts to discourage agricultural production in oil-bearing communities with its incessant oil spills and gas flaring activities. Danhagu (2008), add also, that Eco-Life production oriented marketing firms are environmentally responsible and conscious to protect, sustain, and preserve their



operational environment and the eco-system upon which the economic well-being of the consumers and the host community rest its source of livelihood. This implies that the oil firms, its host communities and the consumer citizens exist, survived and developed based on the **eco-system for their successful operations**. In this reality, the wellbeing of the society, other operational firms, consumers and the environment is an integrated elements of an Eco-Life sustainability marketing concern of an oil production firm.

In this vein, the Eco-Life sustainability marketing engagement of a firm could also be viewed as the ecological marketing practice of the firm or its eco-environmental marketing activities that seeks to protect, sustain and preserves the ecological wellbeing of the consumers, and the society in its production or service providing environment. Evidence of unproductive Eco-Life sustainability marketing justifies the beliefs that there is no significant relationship between oil firm's production activity and the protection of the ecosystem. The ecological source of livelihood in the host community rest on the sustainable existence of the ecosystem. Conventionally, oil pollution activities generated by oil firms in Niger Delta cannot be isolated from the poor practice of its Eco-Life sustainability marketing. Significantly, the increasing rate of incessant oil pollution in Niger Delta is not only considered as dysfunctional Eco-Life sustainability marketing practice, but environmentally destructive to the flora and fauna which are key facets or features of the ecosystem (Morgan and Ruggurg, 2012).

Conventionally, oil pollution activities generated by the oil firms in Niger Delta cannot be isolated from the poor practice of Eco-Life sustainability marketing by the oil firms. Significantly, the increasing rate of incessant oil pollution in Niger Delta is not only Eco-Life sustainability marketing dysfunctional by nature, but environmentally destructive to the flora and fauna which are elements of the ecosystem (Morgan and Ruggurg, 2012). Also, Eco-Life sustainability marketing practice of the oil firms appears to have been unethical and immoral in real practice to sustain the agricultural economic well-being of the oil-bearing communities in Niger Delta.

Having observed the economic threats resulted in what seems to be the failure of the oil firms' Eco-Life sustainability marketing practices, it was still doubtful to notice that "At this age of environmental deterioration, neglect of social services, resource shortages, explosive population growth; World hunger and poverty, and the increase in environmental awareness; the multinational oil firms, such as, Agip Oil Company, Shell BP, and Elf Oil Company still seems to have been busy imposing expensive economic threats on the agricultural productivity in the host oil-bearing communities in Niger Delta".

It is against this background that this study seeks to find out the extent to which the Eco-Life sustainability marketing activities of the oil firms: Shell BP, Agip Oil Company, and Elf Oil Company have in the recent time, improved the quality of agricultural economic wellbeing of the oil-bearing communities in Niger Delta.



Statement of the Problem

The reality concerning the increasing effects of oil pollution hazards caused by the multinational oil firms was traced to high density of incessant oil spills and gas flaring activities of the oil firms. The negative effects on safe drinking water, marine lives, land vegetation, and quality air in the oil-bearing communities. This was not different from the Eco-Life issues in Niger Delta caused by oil pollution that are generated by the multinational oil firms. On a large scale, the impact of the hydrocarbon substances released by the oil firms on the land has distorted the economic health condition of the locals. Eating of contaminated agricultural food produced in the oil-bearing communities has also caused various forms of oil related sicknesses that exploit the financial economic wellbeing of the people. This resulted in compounded health cost of treating such ailments. As if this was not enough, the issue of whether quality assurance in the security of the Eco-Life system was could be obtained for agricultural economic means of livelihood appears to be an uphill task in Niger Delta. In view of this, the destruction of the flora and fauna with severe oil spills and gas flaring activities of the oil firms seems not to have an end in Niger Delta following the findings in Funiwa(2002) who opined that the destruction of the Eco-Life system in Nigeria has not ceased and the oil firms' sustainability marketing has been marked with great failures as considered to lack socio-economic value to sustain the health and economic condition of living and non-living things.

On a large scales, the increasing cost of treating oil polluted agricultural food ailment associated with unhealthy food production has result in huge financial frustration, which does not only caused unwanted health hypertension among the people traceable to the destruction of the economic source of livelihood. However, this was noticed to have generated retrogressive oil pollution impact on the long life span of the host consumer citizens in oil-bearing communities; thereby, causing high rate of immorality associated with poor quality of health assurance in the protection and sustainability of Eco-Life values in oil-bearing communities. Also, for the purpose of discouraging the increase reports of oil pollution activities of the oil firms, World Health Organization, Friends of the Earth, The Green People, Nigeria Environmental Protection Agency, the Sierra Club and the Host Oil-Bearing Communities in strong term condemned the environmental marketing activities of the oil firms in Niger Delta, specifically Rivers State where little or no significant improvement has been done to avoid the oil pollution hazards (Morgan and Ruggurg, 2000; and Funiwa, 2002).

Having noticed the seeming endless negative impact of the observed Eco-Life sustainability marketing activities and practices of the oil firms in Niger Delta, it becomes expedient for this study to find out the extent to which the Eco-Life sustainability marketing activities of oil firms: Shell BP, Agip Oil Company, and Elf Oil Company has significantly, improved the quality of agricultural economic wellbeing of the oil-bearing communities in Niger Delta.

Aim and Objectives of the Study

The aim of this study is to examine the extent to which Eco-Life Sustainability Marketing activities of the oil firms has improved the level of agricultural production in oil-bearing communities in Niger Delta. In order to achieve this aim, the following specific objectives were considered.

- i. To examine the extent to Oil-firms' Eco-Life Sustainability Marketing activities of *"Protecting the Flora"*, has improved agricultural economic crops production in oil-bearing communities in Niger Delta.



- ii. To examine the extent to which Oil-firms' Eco-Life Sustainability Marketing activities of "*Protecting the Fauna*", has improved green agricultural market in oil-bearing communities in Niger Delta.
- iii. To examine the extent to which Oil-firms' Eco-Life Sustainability Marketing activities of "*Sustaining the Natural Marine Lives*", has improved the marine agricultural economic production in oil-bearing communities in Niger Delta.
- iv. To examine the extent to which Oil-firms' Eco-Life Sustainability Marketing activities of "*Maintaining Productive Agricultural Land*", has improved agricultural food production in oil-bearing communities in Niger Delta.

Research Questions

The following research questions are used as guide in this study.

- i. To what extent does Oil-firms' Eco-Life Sustainability Marketing activities of protecting the flora, improves agricultural economic crops production in oil-bearing communities in Niger Delta?
- ii. To what extent does Oil-firms' Eco-Life Sustainability marketing activities of protecting the fauna, improves green agricultural market in oil-bearing communities in Niger Delta?
- iii. To what extent does Oil-firms' Eco-Life Sustainability marketing activities of protecting the natural marine lives, improves marine agricultural economic production in oil-bearing communities in Niger Delta?
- iv. To what extent does Oil-firms' Eco-Life Sustainability marketing activities of maintaining productive agricultural land, improves agricultural food production in oil-bearing communities in Niger Delta.

Research Hypotheses

The following research hypotheses were used in this study. However, they are stated in null form.

H₀₁ Oil-firms' Eco-Life Sustainability Marketing activities of protecting the flora, has not significantly improved agricultural economic crops production in oil-bearing communities in Niger Delta

H₀₂ Oil-firms' Eco-Life Sustainability Marketing activities of protecting the fauna, has not significantly improved green agricultural market in oil-bearing communities in Niger Delta.

H₀₃ Oil-firms' Eco-Life Sustainability Marketing activities of protecting the natural marine lives, has not significantly improved marine agricultural economic production in oil-bearing communities in Niger Delta.

H₀₄ Oil-firms' Eco-Life Sustainability Marketing activities of maintaining productive agricultural land, has not significantly improved agricultural food production in oil-bearing communities in Niger Delta.



Significance of the Study

The significance of this study will be derived from the ecological sustainability marketing practice of the oil firms based on the oil firms' activities on the agricultural wellbeing of the oil-bearing community. Better understanding about how members of the public look at the oil firms' activities concerning its oil pollution reduction on the agricultural productivity in oil-bearing community becomes the importance of this study. On the other hand, members of the society will also benefit from this study based on their understanding about the relationship between Eco-Life sustainability marketing activities of the oil firms and the agricultural productivity in Niger Delta region. The study will also on a large scale be of great benefit to the government, groups, and individuals who vividly understand the need for oil firms to avoid oil pollution in the region, its effects on the environment and to better the agricultural wellbeing of the people. Significantly, the study will provide new knowledge that will afford the oil firms to adopt more proactive Eco-Life sustainability marketing action and show total concern about best ways of improving, protecting and sustaining the ecological system in Niger Delta. Without doubt, this study will in addition, enable members of the society, scholars, researchers, human rights crusaders and clergymen understand the relevance of this study to the betterment of the entire society and its environment. Indeed, the adoption of the recommendation of this study, "Eco-Life sustainability marketing" will promote proactive measures that will encourage quality service value delivery and add meaning to public expectations, devoid of oil pollution, low agricultural productivity and health hazards among others.

On a large scale, the government can also use this study to improve the quality of life in Niger Delta and the agricultural economic wellbeing of the people. Thus, helps to promote sustainable control measures and internationally acceptable standard of oil production operation in Nigeria than what is being experienced in Niger Delta. To be more exact, the study will enable students, scholars and researchers to understand more about the usefulness of Eco-Life sustainability marketing practice of the oil firms and its improved impacts on the agricultural economic productivity of the Niger Delta region as considered capable of promoting related research works in the future.

In addition, the review of related literature of this study will not only be useful to serve as reference point in other related studies by students, scholars and researchers, but will help to determine the socio-economic implications of the oil firms' Eco-Life sustainability marketing activities on the agricultural economic productivity in oil-bearing communities in Niger Delta region.



REVIEW OF RELATED LITERATURE

This study considers the review of related literature based on the following sub-headings.

Conceptual Framework

Conceptual View of Eco-Life Sustainability Marketing Practice on Agricultural Production Sustainability

The Eco-Life sustainability marketing view of agricultural economic wellbeing is traced to what Morgan and Ruggurg (2000), described as sustainability marketing practice of a business organization that seeks to protect, preserve and improve the socio-economic wellbeing of its consumers and the environment. As for oil firms, the practice of engaging in Eco-Life sustainability marketing activities is a driven force towards economic maintenance of green agricultural production in an environment. This implies that agricultural economic quality value provided by oil firms is a function of Eco-Life sustainability marketing practice that focuses on the avoidance of oil spillage and gas flaring activities. Therefore, Eco-Life sustainability marketing is more of ecological marketing that deal with the application of ethical and responsible marketing practice that involves environmental concern of the oil firms to sustain and protect agricultural marketing values (Funiwa,2002).

Without doubt, the practice of Eco-Life sustainability marketing is focused on sustaining the benefits and price value of both living and non-living things in the ecosystem. Thus, oil production activities of the firms are determined by the level of its operational impacts on the environment. Ekpu (2010), adds that oil firms have rendered the ecosystem useless, and agricultural production of healthy food low for the wellbeing of host community. The oil firms' economic yields to the host community seems not to be Eco-Life sustainability marketing-oriented, but rather, more profit making oriented in practice. The unnatural dead of marine lives have threatened the existence of the ecosystem in Niger Delta where Eco-Life sustainability marketing could no longer obtain its full value. This related the concept of Eco-Life sustainability marketing practice as one which is driven by societal marketers who seeks to ensure complete avoidance of oil pollution hazards on land, water and air. The agricultural economic oriented protection mentality concerning the negative impact of oil pollution is an Eco-Life sustainability marketing concern for agricultural economic security. Therefore, Eco-Life sustainability marketing concept, holds that "Marketers and business organizations should search for Eco-Life needs of the society and adopt the best green approach that can satisfy them effectively and efficiently.

Morgan and Ruggurg (2000), further contended that Eco-Life sustainability marketing remain sustainable by its nature and as an element of societal marketing effort, Eco-Life sustainability marketing activities and agricultural economic quality assurance are clearly enhanced in oil-bearing communities. On this note, oil firms must consider its sustainable oil production activity alongside the protection of green ecological yields. For this reason, Ekpu (2010) adds that naturally all production firms, consumers and the society, depends and survive on the ecosystem for their existence.

It is therefore, an indisputable truth, that oil firms in their oil production process, should not only be profit minded, but environmentally considerate to keep the ecosystem safe from harmful effects of oil exploration activities on the consumer citizens and the society. This becomes more transparent based on the reality of societal marketing concept which demands

that firms should satisfy the long-run interest and well-being of the consumers and the society. Eco-Life sustainability marketing is thus, concern with marketing effort to sustain, promote and improve the wellbeing of the consumer citizens, their long-term interest, and the environmental condition of the society. On this note, this study seeks is designed to focus on the conceptual framework presented below. Agricultural crops production, green agricultural market, marine agricultural economic production and agricultural food production.

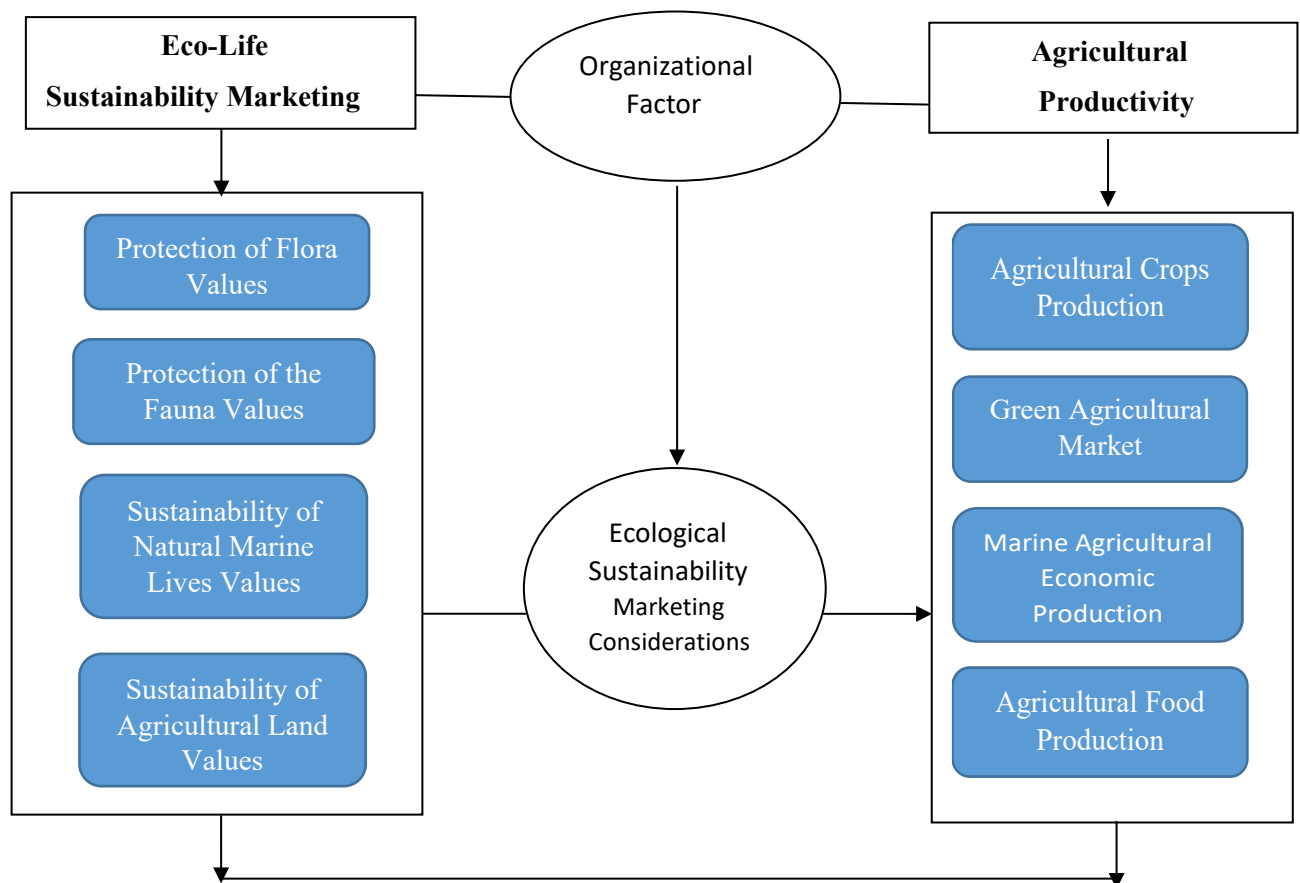


Figure 1: Analytical construct of Eco-Life sustainability marketing and agricultural productivity in oil-bearing communities

Source: James and Roger(2001), *environmental Marketing for Consumerr citizens*: Donhan Publishers.



Conceptual View of Eco-Life Sustainability Marketing about Oil Firms

The Eco-Life sustainability marketing activities of a firm anchors on the idea of sustaining the wellbeing of the ecosystem in which the agricultural economic wellbeing of the oil-bearing community cannot be isolated. The driven value of Eco-Life sustainability marketing practice on agricultural economic sustainability in Niger Delta is practically connected with the extent of oil pollution effects on the eco- system is reduced. On this note, oil pollution could be defined as the harmful discharge of toxic petroleum substances, which poisons the agricultural economic source of livelihood of the people when oil production is not guided by ethical marketing principles (Ukaogo, 2007). It is therefore not out of context to understand that oil pollution has no positive relationship with Eco-Life sustainability marketing activities based on the oil pollution effect to generate a sustainable value. Oil pollution is thus, defined as the poisonous petroleum hydrocarbon substances released into environment that affect the economic wellbeing of the people, plants, fish, birds, animals, land, air and water (the flora and fauna) as constituents of the ecosystem (Danhagu, 2008). It is therefore, a natural phenomenon that a safe land, waters and air are not gifts from our parents, but a debt we owe to pay back to our children in good health without leaving its harmful future effects on them (Funiwa, 2002).

On this note, the economic consideration of Eco-Life sustainability marketing activities is disconnected from oil pollution hazard that promote harmful impact on fertile agricultural land. Heig (1999) adds that ineffective Eco-Life sustainability marketing practice of the oil firms in oil bearing communities has caused a great deal of harm to the wellbeing of the environment, the ecosystem and the society. This add meaning to the view in Ekpu (2010) who explain that Eco-Life sustainability marketing concern of the oil firms is to ensure proper prevention of oil pollution that enhanced human existence and environmental value. This was not out of context in the reality “firms have only one job; and that is to give customers exactly what they want, when they want it, and where they want it (Perreault and McCarthy, 1999)”. To justify this, Bomi (2010) relates that result oriented environmental management activities of oil firms is the management concern to improve the firms’ Eco-Life sustainability marketing activities, designed to avoid dangerous production impact on human life and the ecosystem. This implies that the environmental consciousness of protecting, preserving and sustaining the agricultural economic value of the flora and fauna, remains the conscious efforts of an Eco-Life sustainability marketers.

Oil Firms’ Eco-Life Sustainability Marketing of Protecting the Flora and Improvement of Agricultural

Economic Source of Livelihood in Niger Delta Oil-Bearing Communities

The Eco-Life sustainability marketing practice of protecting the flora is designed to improve agricultural economic source of livelihood and reduce the trend of agricultural economic poverty in the oil-bearing communities. Based on this reality, the multinational oil firms appears to have indicated sign of severe failure to protect and sustain the flora. This may be associated with ineffective Eco-Life sustainability marketing consideration. Thus, it was not out of context that harmful oil pollution in Niger Delta has damaged the ecosystem. Right from 1958 precisely, when Shell BP (an oil firm), started its operation in Ogoni land; oil explosion that causes some dangerous toxic substances on the farm-lands and water bodies strongly contain hydrocarbons, acidic chemicals, and inorganic metals. This is associated with mercury or arsenic flammable solvents, pesticides, herbicides phenols and explosive among others that



destroyed the green land value. Therefore, it was not out of context that oil firms' Eco-Life sustainability marketing practice has not proactively protects the flora as to improve agricultural economic source of livelihood and deduce the trend of agricultural economic poverty in Niger Delta.

Similarly, the poor practice of Eco-Life sustainability marketing by the oil firms in Niger Delta, when embarking on its oil production activity, has destroy the agricultural-economic source of livelihood of the locals in oil-bearing communities. This implies that the petroleum resource that sustained the economy of Nigeria and destroys the agricultural economic wellbeing of farmers and fishermen in oil-bearing communities but has also been extremely harmful and frustrating to human existence in the oil-bearing locality (Asakitikpi and Oyelavan, 2006). For this and similar reasons, point out that "Some business organizations have lost their ethical values and mutual relationship with their host communities for failure to protect the flora as to improve agricultural economic source of livelihood. Thus, oil firms appears not being socially responsible and unethical in attending to social needs and problems of the host communities (Omuni and Ekan, 2012)".

The rhetoric question about whether oil firms in Niger Delta is actually practicing Eco-Life sustainability marketing was a major concern of the oil firms in the recent time to satisfy the agricultural economic and health needs of the consumer citizens. In response to this rhetoric question, Fayifu (2006) relates that the outcome of oil firms' exploration activities that promotes environmental degradation, socio-economic frustration and economic hardship that cause potential threats to the host communities' main source of livelihood was not only harmful but unsustainable. This tends to confirm that the economic wellbeing of the oil-bearing community was not ethically considered in the Eco-Life sustainability marketing activities of the oil firm by avoiding oil pollution in oil-bearing communities. No wonder Ekpu (2010) observes that we witnessed the slow poisoning of the waters of this country and the destruction of vegetations and agricultural lands with oil spills that occur during petroleum operations. Having observed this fast growing trend of endless poisoning of the waters, air and land in Niger Delta, it was significant to ascertain the extent to which oil firms' Eco-Life sustainability marketing activities has improved the agricultural economic poverty of the oil-bearing communities.

Having noticed the immediate huge profit intention of the multinational oil firms and their uncaring attitude that shows lack of interest in the socio-economic wellbeing of the oil-bearing communities, Kotler (2000), advised that "It is more important and necessary for production firms to do what is strategically right than what is immediately profitable; for it is no longer enough to satisfy customers, rather, you must delight them". In order to add meaning to this, Frank Hungal, an American executive, states also that "My firm serves the target market for the customers gives the firm opportunity to serve; and the firm cannot survive and exist without them (Schiffman and Kanuk 2009)". Thus, the survival and existence of oil firms rest primarily on the oasis and succor of the oil-bearing community. Therefore, it is not out of place for oil firms to protect, improve and sustain the wellbeing of the host oil-bearing communities.



Oil Firms' Eco-Life sustainability marketing Practice of Protecting the Fauna and Improvement of Green Agricultural Market in Niger Delta Oil-Bearing Communities

The desire to ensure effective drive of Eco-Life sustainability marketing activities of protecting the fauna, is relatively focus on improving the green agricultural market. The reality of this in oil-bearing communities anchored on the concern of protecting the wellbeing of the environment. In this light, the need to protect and sustain the ecosystem for the good of the consumer citizens, anchors on the need to ensure green agricultural market in an effort to carry out oil protection. From the economic perspective of avoiding agricultural market failure in Niger Delta, it was observed that oil pollution caused by oil firms has constitutes a type of market failure. This resulted in inefficient practice of Eco-Life sustainability marketing practice which does not seeks to sustain agricultural economic wellbeing of the locals. Thus, this failure model is used to analyze Eco-Life sustainability marketing problems that are caused by oil firms to distort productive agricultural yields. This is becomes a failure model which typifies that oil firms has engaged in oil spills and gas flaring activities with selfish profit motive that destroys farmlands and marine lives with harmful petroleum substances that leads to agricultural market failure.

Similarly, gas flaring activities of the oil firms which caused global warming and acid rain that destroys the land, crops and other valued vegetation in Niger Delta has to a large extent constitute grave agricultural market failure. Without doubt, the situation has resulted in poor agricultural yields and economic hardship that create agricultural market failure, which posed long-term economic threats on the economic source of livelihood of the people. On this note, Aakol (2009), affirms that the fear of food insecurity and economic frustration caused by oil pollution has generated more serious threats of agricultural market failure to the economic survival of residents in the oil-bearing communities in Niger Delta where its resultant hypertension and short life span of the farmers and fishermen becomes a factor of reality in poor practice of Eco-Life sustainability marketing.

According to Ekpu (2010) the end result of the oil firms' Eco-Life sustainability marketing activities associated with oil spills and gas flaring activities has created long term dissatisfaction and lack of interest among members of the host community towards the production activities of the oil firms. For this reason, Osabie (2007), argued that poor environmental marketing activities of the oil firm, is the same as the poor Eco-Life sustainability marketing activities of the firm. This shows oil firms inability to sustain the environmental Eco-Life values in oil polluted communities. Oil firms' failure to practice effective and sustainable Eco-Life security marketing, might cause the consumer citizens to threaten the existence of oil firms for failure to protect the Eco-Life value of their environment. Kotler (2000) confirms that "the market is *growing* so fast that companies no longer worry about best ways of satisfying its customers and their wellbeing but more concern of unmerited huge profits". Briggs (2007), puts that business organizations that fails to recognize the need to protect its environment for huge profits, should be made responsible and forced to recognize the values of Eco-Life sustainability marketing to the wellbeing of farmers and fishermen in the host community. The economic wellbeing of host stakeholders no longer appears significant in the production activities of oil firms despite the devastating effects of hydrocarbon pollutions on the traditional means of the people livelihood. Thus, oil spills and gas flaring activities has come to be an inevitable, tolerated and acceptable aspect of oil production process by the government and oil firms in Nigeria (Osaghae, 2007).



Perreaut and McCarthy (1999) states that marketers ought to give careful attention to environmental issues, for few dishonest or unethical managers has done a great deal of damage to the environment before the consumer citizens takes the necessary steps to stop them. Evidence of incessant oil pollution in Niger Delta has indicated that oil firms' Eco-Life sustainability marketing activities - still appears to lack merit of value to sustain, preserve and improve agricultural economic well-being of the people.

Oil Firms' Eco-Life sustainability marketing Practice of Sustaining the Natural Marine Lives and Improvement in Productive Agricultural Marine Source of Livelihood in Niger Delta Oil-Bearing Communities

The practice of Eco-Life sustainability marketing to avoid agricultural economic frustration is associated with the activities of sustaining the natural marine lives to improve productive agricultural marine source of livelihood. Also, this is traced to the need for oil firms to avoid released of sulfur oxide and nitrogen oxides that forms acid rain, which resulted in the destruction marine lives, fruitful soil productiveness, associated with poor growth of trees, grasses, and other vegetation. This has been extremely unethical and inhuman on the part of the oil firms by their oil production activities.

It is therefore, cogent enough to understand that Eco-Life sustainability marketing is anchors on ethical marketing intention to sustain and improve the environment and the Eco-Life wellbeing of the locals. Thus, the resultant effect of "unethical Eco-Life sustainability marketing activities of oil firms on the other hand seeks to distort productive agriculture". It is the same as "unsustainable Eco-Life sustainability marketing activities of the oil firms that failed to protect, sustain and improve the socio-economic Eco-Life values. The sustainable manner of Eco-Life sustainability marketing helps to guide agricultural economic frustration and encourage productive agricultural marine source of livelihood in oil bearing communities (Omuni and Ekan, 2012).

Also, the impact of oil pollution on agricultural yields has inflicted economic set back on farmers, fishermen, hunters and timber producers that resulted in food insecurity which forms obstacles to the agricultural productivity among others in the oil-bearing communities in Niger Delta (Okoh, 2009). Uba (2002), opined that the severed high rate of poverty, associated with economic frustrations has become the daily life portion of people living in the oil-bearing communities in Niger Delta. Tuyizere (2007) opined that oil activities in Niger Delta has made its natural wealth to become its main source of poverty, misery and unwanted sorrow that rendered the productive population jobless by alienating the host community from their meaningful farming and fishing activities.

Kotler (2000) opines that the future is no longer ahead of us; it has already happened based on the existing activities. This explains that the future of the Niger Delta people is determined by the outcome of the oil firms' production activities in the locality. This gave rise to rhetoric question, asking if Eco-Life sustainability marketing practice of the oil firms has significantly reduced the trend of agricultural economic frustration in oil-bearing communities in Niger Delta. In a respond, Okoh (2009), relates that oil spillage substances on farmlands, rivers, and gas flaring effects on the ozone layers has not only done a great deal of damage to the Eco-Life system by the oil multinational companies but has terribly destroy and frustrate the socio-economic future wellbeing of the host communities. Thus, Uba (2002), adds that an un-



protected Eco-Life environment is an unsustainable Eco-Life system where nothing good can strive successfully.

Oil Firms' Eco-Life sustainability marketing Activities of Sustaining Productive Agricultural Land, and Productive

Agricultural Yields in Niger Delta Oil-Bearing Communities

It is obvious that since the advent of oil firms in Niger Delta, Eco-Life sustainability marketing activities of the oil firms had not consider it important to sustain the natural value of productive agricultural land for the economic wellbeing of the farmers and fishermen in Niger Delta because of the gross neglect of the socio-economic well-being of the farmers and fishermen (Utukeyo, 2011). This justifies that prevention of agricultural land limitation as caused by oil pollution is not enhanced. Therefore is observed to generate harmful impacts on productive agricultural lands in oil-bearing communities in Niger Delta. On a large scale, weak practice of Eco-Life sustainability marketing of oil firms has devalued large quality of fecund land scale in Niger Delta (Chukwu, 2008). The socio-economic decisions and the survival prospect of farmers and fishermen in Niger Delta were therefore, driven by the seeming weak Eco-Life sustainability marketing decision of the oil firms. On this note, Gabriel (2017), equally observed that oil production activities have limit the available land for agriculture, distorts productive agricultural yields, and cause serious economic hardship and frustration in oil-bearing communities. Tuyizere (2007) asserts that people in the oil-bearing states in Niger Delta, depends heavily on agricultural activities for their livelihood where fertile lands has been rendered unproductive and limited for food production.

In view of this, oil firms and the host community have experienced unwanted crisis for oil firms' failure to consider protection and sustainability of the environment as part of its social responsibility. Perreault and McCarthy(1999), adds that "A firm cannot always wait until social crisis becomes obvious before thinking of doing something right; but should rather considered it harmful when customers react in anger and may be too late to fix the problem when the profits disappear". This indicates that irresponsible firms wait until social crisis becomes obvious and too late before fixing the problem. To this end, it was not out of context to understand that the level of poor Eco-Life sustainability marketing practice of the oil firms has resulted in unprecedented economic poverty and its resultant unemployment, associated with moral decadence and fast-growing criminal activities in the oil-bearing communities in Niger Delta (Okoh, 2009). This is directly concern with the existing state of available limited farm space with pipelines that crisscross the farmlands, streams, creeks and villages in Niger Delta. With these pipelines, farmers could not have access to their farms land and fishermen access to fish in their rivers; thereby generating untold economic hardship and frustration in the host communities.

In addition, when the oil spills and gas flaring effects on the ecosystem is grossly neglected by oil firms for depriving farmers the opportunity to produce agricultural food, the value of Eco-Life sustainability marketing is neglected (Utukeyo, 2011). This add meaning to the view in Gabriel (2017), who suggests that oil communities in Niger Delta groan under the perennial destruction of their property and their ecosystem as caused by oil spillage and gas flaring activities. This resulted in land limitation effects on farmers' progress associated with the distortion of productive agricultural yields. In line with this, Shell petroleum Development Company was not ignorance of the evidence of poor management of its pipelines, which its



leakages was caused by corrosion in Bodo city area of Rivers state; as discovered against what Shell Petroleum Development Company's experts' findings disclosed (Nation Newspaper, August 3, 2012).

It was necessary to understand that any business that ignores its social responsibility in the society, has its social power threatened by what Keith et al (1978) called the "iron law of responsibility" (Chukwu, 2008). This implies that "Business firms must balance their concern and relationship with the environment to accomplish consumers' expectations. Schiffman and Kanuk (2009), states that favorable attitudes of a company, encourage effective product positioning and marketing practice that stimulate proper identification of a company's value from others. Briggs (2007), adds that the oil companies do not take in to consideration, the effects of oil pollution that are external to the company, because they suffer no negative effects of the huge profits made from Niger Delta.

Empirical Review

The empirical review of this study presents a review of related studies on Eco-Life sustainability marketing practice of oil firms in the oil-bearing communities. Hegbataama (2011) investigated the "Impact of Shell Petroleum Development Company's Environmental Marketing on Farmers in Delta State". Using 32 questions on a sample size of 300 literates' farmers in Delta State, data collected and analyzed with the use of Gamma test, revealed that "there is evidence of negative relationship between Shell Petroleum Development Company's environmental marketing practice, and the agricultural production of safe foodstuffs in the oil-bearing communities in Delta State". It was recommended that Shell Petroleum Development Company should be environmentally orientated to improve the economic wellbeing of farmers in Delta State.

Sauka and Oshita (2007) investigated the Impact of Oil Exploration on Economic Poverty in Rivers State. The study aim at examining the extent to which oil exploration activities of oil firms has reduced economic poverty in the oil-producing communities in Rivers State. A sample of 320 respondents was used for the study; and data generated were analyzed with the use of chi-square statistics techniques. Results obtained revealed that the impact of AGIP Oil Company's Exploration Activities has not practically promoted the natural agricultural economic investment and reduction in economic poverty alongside its oil pollution in Rivers State. It was therefore, recommended that more proactive measures should be adopted by the oil firm to ensure drastic reduction in the level of economic poverty alongside reduction in oil pollution in the oil-bearing communities.

Koateh and Menele (2007) in a study of "Oil Exploration and Environmental Degradation in Bayelsa State", used 22 questions, served on 260 respondents in 12 local oil communities in Bayelsa State. Data analyzed with the use of t-test statistics revealed that "There is no significant impact created by ELF Oil Company to reduce environmental pollution impact on the sustainable economic activities of the oil-bearing communities in the State". It was recommended that ELF Oil Company should employ ethical based responsibility marketing approach in managing oil exploration and environmental degradation issues.

Using Shell Petroleum Development Company and ELF Oil Company in Niger Delta, Amadi and Nwomaji (2008) studied "Effects of Oil Production on the Economic Development of Oil-Producing Communities in Akwa-Ibom, Rivers and Delta State". With a 26 count item questions on a survey instrument, data obtained were critically analyzed with the use of



‘Analysis of Variance (ANOVA), statistical techniques. Result obtained reveals that, “There is no significant difference in the negative effects of oil production and the economic development of oil-producing Communities in Akwa-Ibom, Rivers and Delta State”. The oil producing firms should try to protect agricultural economic sustainable source of livelihood of the locals in the oil-bearing communities and to promote a sustainable development in the oil-bearing locality.

Vigale and Nenu (2006) carried out their studies of the Impact of multinational oil firms’ oil spills management on the production of food in Rivers State. Data generated through 256 respondents and analyzed with the use of Pearson moment correlation coefficient revealed the result that, the effect of the multinational oil firms’ oil-spills management on the production of food in Rivers State is connected with pipeline maintenance which was partially active enough to avoid oil spillages that will enhance effective production of food stuff in the host community. It was therefore recommended that oil firms should embark on more active approach of managing and maintaining its pipelines to avoid incessant oil spills that distort safe agricultural food production.

Odu (2007) investigated the “Effects of Oil Pollution on Agricultural Production in Cross Rivers State”. Response generated from a sample size of 300 respondents drawn from eight oil-bearing communities was analyzed using chi-square statistics. Result obtained revealed that critical evidence shows that “Lack of adequate sustainable quality oil production facilities resulting in oil pollution frustrates fruitful agricultural production and other related socio-economic activities in the oil-producing communities”. It was recommended that Shell Petroleum Development Company should improve on its oil production facilities to avoid oil pollution and boost agricultural production and its related socio-economic activities in the oil-producing communities.

Omonona (2001) used a Tobit regression analysis format to analyze the “Causes and Effects of Socio-economic Poverty in Oil-producing States in Niger Delta”. Results obtained revealed that a unit decrease in farm income, farm size and farm extension services increased the likelihood of poverty caused by oil pollution in the oil-producing communities in Lagos State. This study becomes relevance to the present study based on the agricultural relationship with farm income, farm size and farm extension services that increased the likelihood of poverty in Oil-bearing States of Niger Delta.

Mohammed (2008) studied “the State and the Society’s Economy in Niger Delta”. The data analyzed with the use of t-test statistics identified significant evidence that “the state and the society cannot survive without a virile socio-economic development if, the oil companies are not forced to be responsible in the avoidance of oil spillage in Niger Delta”. It was therefore, recommended that the company should carry out responsible management practice of its oil spills. The implication of this study on the recent study is that Oil Companies in Niger Delta is expected to carry out responsible societal marketing practice, which if failed to adopt, might results in severe economic failure in Niger Delta and the country at large.

In spite of the contributions of the empirical review of this study, it is observed that the reviewed studies could not directly examine Eco-Life sustainability marketing and issues of agricultural economic sustainability in Niger Delta; neither does the objective of the related review examines the present objective; and this is considered an empirical gap, which this study seeks to close.



Theoretical Framework

This study used Eco-Life system theory to explain the implication of Eco-Life ethics on the Eco-Life system as justified in the ethical marketing perspective of Eco-Life sustainability marketing activities of a firm. In harmony with this, Eco-Life sustainability marketing practice seeks to consider the satisfaction of consumers' ecological needs and wants for environmental protection, sustainability, preservation and improvement; as well as their long-term interests alongside the sustainability of the Eco-Life socio-economic source of livelihood of the consumer citizens; and the society's wellbeing. In line with this, Wriote Anderson propounded the **Eco-Life system theory** in 1992, as cited by Miller, Moham Recido in 2007. The theory states that the Eco-Life system is a hybrid of complex whole, made up of sub-components, consisting of interrelated and inter-dependent set of organisms, plants, animal, the environment and ethical factors that guide and functions in common for the wellbeing of the inhabitants and the society (Miller, 2007).

The theory emphasizes on the assumptions that successful existence of environmental organisms, the inhabitants and the ethical factors that seek to protect them are functions of environmental sustainability, improvement and preservation to their wellbeing in an interrelated and interdependent Eco-Life system for survival. Thus, it assumed that the Eco-Life system is a dependent component of the Eco-Life ethics system, based on which other natural and physical related systems functioning for their wellbeing in the society. This implies that there is an existing relationship between the Eco-Life system and the Eco-Life ethics based on which the natural agricultural economic values of the environment can be sustained and achieved. The proactive sustainable drivers of the Eco-Life system theory therefore, anchors on the Eco-Life sustainability marketing practice of improving and preserving the environmental wellbeing of the consumers and the society in a more ethically responsible manner.

On this note, the Eco-Life system theory is known to exist on the protective efforts of the Eco-Life ethics theory based on which the ethical marketing perspective of Eco-Life sustainability marketing determines the ethical dimensions and sustainability of the environmental values with which the agricultural economic consideration of oil firms and other related business organizations are expected to satisfy, protect, improve and sustain for the wellbeing of both living and none living things in the environment with human concern or feelings.

On this note, Eco-Life system theory is use to describe the relationship between ecosystem and the Eco-Life sustainability marketing activities that deal with the agricultural economic values and its socio-economic variables as inevitable considerations in an oil company's production activities. These are the health and economic of the flora and fauna that anchors on the marketing activities of natural resources that sustain them in the environment.

Having understood that the Eco-Life system theory does not have its self-accomplishment in isolation of Eco-Life ethics in the practice of sustainable Eco-Life sustainability marketing; Wriote Anderson views the Eco-Life system theory as ethically oriented system theory based on which the pivot or axis of all environmental related marketing practice rotates. This attempts to explain that Eco-Life sustainability marketing is an aspect of environmental marketing based on which the value of the flora and fauna are given a sustainable, ethical marketing attention during and after the production activities of business firms. In this light, the various parts that make up the Eco-Life system like the water, land, air, fish, aquatic organisms, animals, plants



and waste products, including others are interrelated, and interdependent factors or activities of one of part will affect the function of other parts. Thus, the survival of each part interrelates and depends upon the survival of the other parts of the system. Without a doubt, the operational activities and existence of the ecosystem is guided by the conventional environmental marketing ethical tenets that emphasized on **creation of values** that are capable of improving, preserving, sustaining, protecting and satisfying the interests and wellbeing of living and none living things in the environment. This forms a coherent function of the system that leads to the achievement of a set of goals which the set objective of Eco-Life sustainability marketing practice of oil firms in Niger Delta is one.

To be more analytical, the oil multinational firms and other socio-economic institutions are parts of the large Eco-Life system that depend upon the natural environment for their source of energy, material resource, waste disposal and other relevant sources. On this note, the theory implies that environmental marketing practice considers the implication of land value and the related defects of oil pollution on the Eco-Life system. Eco-Life sustainability marketing looks at the variables of that affect the socio-economic system negatively, and the environmental marketing factors that requires special attention to ensure effective environmental protection, sustainability and preservation for the economic good of the consumer citizens and the society's wellbeing.

On the other hand, the Eco-Life system is view as the composition of living things that requires special attention of the oil firms to protect, preserve, improve and sustain their values in a greener form in the environment. This will enable an individual to see the 'earth-environment' as the main system (called the society), that consist of an integration of social, economic and Eco-Life sub-systems that is driven by environmental marketing activities. These set of activities integrate the functional value of living things and Eco-Life sustainability marketing of economic resources for the wellbeing of the consumers. For this reason, Norahaus (2011) described the earth as a complex web of socio-economic and Eco-Life factors, called system; consisting of living and non-living things, as well as the socio-economic factors functioning together for the wellbeing and interests of the society and its inhabitants. No wonder, Grace and Cohen (2011) proposes that business comprise people that processes views which are humanistic, social, economic and natural in nature; and that a deteriorating environment and planet is of no relevance in the sustainability of human life and living organisms, let alone the survival of an unethical business organization. In order to add meaning to Grace and Cohen's view, Kotler(1980) demands that consumers and their Eco-Life environment are of great value, and they are needed to be satisfied, protected, sustained and improved as part of the society, which their environmental wellbeing is the major concern of the firm.



METHODOLOGY

The descriptive survey method of co-relational research design was adopted in this study to provide detail investigation of the procedure used to establish the relationship between Eco-Life sustainability marketing activities and agricultural productivity in oil-bearing communities in Niger Delta. Best (2007) and Gay (2010), recommended also that the use of co-relational research design is better since it permits the description of relationship survey as they exist in their natural conditions. The population of this study was 7,303,900 persons (See Nigeria National Population Commission Census Web-site, projected population). A sample size of 400 persons was obtained for the study, using Taro Yamene's sample size techniques at 0.5 percent level of significant cited in Ani (2012). Purposive sampling technique was adopted with the use of a simple proportional percentage approach to choose respondents from the different strata that make up the population as to ensure that adequate representation and distribution of the questionnaire among the different strata of the population are done. The primary source of data was employed in the study to elicit relevant raw responses or data from the 400 respondents. However, the secondary source obtained from magazines, newspapers, journals, and books among others were merely supportive, employed to provide constructive theoretical solutions to the research questions designed for the study. A set of questionnaire containing 20 item questions were structured and administered to elicit relevant responses from the 400 respondents; out of which only three hundred and eighty eight (368) copies being 92% of the questionnaire was returned successfully, while eight (8) copies being 4% was not returned with the aid of five research assistants used for study. Conventionally, the administered instrument containing variables investigated in this study was operationalized, using "Eco-Life Sustainability Marketing and Agricultural Productivity in Oil-bearing Communities" to determine if, Eco-Life Sustainability Marketing has actually improves Agricultural Productivity in Oil-bearing Communities. An inbuilt, modernize Likert 4-point measurement scale format cited in (Uzuaguru, 2002), was also used in designing questionnaire as a determining index factor to generate comparative response or opinion (agree and disagree) from respondents for computation of the mean score statistics and simple percentage test. Validation of the research instrument used in this study was carried out, using content and face validities as well as logical and non-statistical method to identify relevant characteristics necessary to performing a fussy task. A questionnaire containing the appropriate test items that measure what is intended to be measured was drafted as the instrument. In the process of validating the instrument, two(2) environmental marketing academics and these(3) experts in measurement and evaluation were employed to vet, modify, and validate the instruments. Their observations, corrections, views suggestion and recommendation deduced from the validated instrument were instrumental to the validity of the instrument. Significantly, vetting, modification and validation of the instrument done by these experts, jointly affirmed the instrument as one having the required validity. Cohen and Swerdlick (2010) assert that 'if experts who assess the instrument do not perceive its test as valid, the validity of the instrument is questionable'. Gay, (2010), confirms that the validity coefficient of a valid instrument is determined by the instrument validity ability to yield same scores which the difference reflect in the true consistency of the measured variables, justifies reliable validity coefficient of a test instrument as a perfect one (Grinnell, 2011). Reliability of the instrument was obtained with the use of test-retest reliability techniques; which employ a sample of 185 copies of structured questionnaire, administered twice (first and second test) to a particular group of respondents within a given time interval of 3 weeks. The scores result of $R=.83$ obtained using Spearman's Rank Order Correlation Coefficient employed depicts that the scores were consistent and stable



at $R=.83$. Thus, the coefficient of “R” at .83 obtained indicates cogent “reliable coefficient of the instrument”. For the analysis and interpretation of data obtained, analytical benchmarks ranging from: 1.00 - 1.49(10%-29%) stands for **very low extent**, 1.50-2.49(30%-49%) shows **low extent**, 2.50 - 3.49(50%-69%) stands for **moderate extent**, and 3.50 and above (70%-100%) indicates **high extent** were employed in the study. The descriptive means score statistics, and simple percentage test method were used for the analysis of data to provide raw solution to the research questions, while the z- score inferential statistics model was used to test the hypotheses of the study.

The Z score test formula is presented as follows:

$$Z_c = \frac{P - P_o}{P_o \sqrt{\frac{(1-P_o)}{n}}}$$

Where:

P = Percentage of positive responses

P_o = Probability of rejecting the null hypotheses

n = Sample size

RESULTS

Data generated were presented, analyzed and discussed based on raw data obtained from 400 questionnaires served. Out of these 400 questionnaires, only 368 copies were useful and successfully collected for analysis to determine the extent of which oil firms’ Eco-Life sustainability marketing activities in oil-bearing communities improves the economic wellbeing of the natives from oil pollution hazards in Niger Delta. The mean (X) score test approach, simple percentage test method, and the Z - score were used for the analysis of data obtained. Interpretation of results obtained as answers to the research questions was done with the use of the following benchmarks: 1.00 - 1.49(10%-29%) stands for **very low extent**; 1.50-2.49(30%-49%) shows **low extent**; 2.50 - 3.49(50%-69%) stands for **moderate extent**; and 3.50 and above (70%-100%) indicates **high extent** were employed in the study. The data generated for the study are therefore presented, analyzed and interpreted in the follows order:

**Table 1: Total Number of Questionnaire Distributed and Returned**

<i>Categories of Respondents</i>	<i>Number Distributed</i>	<i>Number Returned</i>	<i>Number Not Returned</i>
Males	162(40%)	148(37%)	14(3%)
Females	238(60%)	220(55%)	18(5%)
Total	400(100%)	368 (92%)	32(8%)

Source: *Field Survey Data 2024*

Table 2: Distributions of Respondents by Age

<i>Age Bracket</i>	<i>Frequency</i>	<i>Percentage</i>
18 -25	63	16%
26 -35	132	33%
36 -45	120	30%
46 -55	85	21%
Total:	400	100%

Source: *Field Survey Data 2024*

The table above shows the analysis of the various age brackets within the age bracket of 18-25, 26-35, 36-45, 36-45 and 46 – 55; which have the frequency distribution values of 63(16%), 132(33%), 1120(30%) and 85(21%) respectively; in confirmation of 400 copies of questionnaire administered at 100% distribution rate to the respondents.

Table 3: Distribution of Questionnaire by Gender to Selected Categories of Respondents

<i>Respondents Categories</i>	<i>Traditional Rulers</i>	<i>Women Leaders</i>	<i>Youth Leaders</i>	<i>Church Leader</i>	<i>Total</i>
Males	66(16.5%)	(0%)	67(16.7%)	67(16.7%)	200(50%)
Female	0(0%)	66(16.5%)	67(16.7%)	67(16.7%)	200(50%)
Total	80(20%)	80(20%)	80(20%)	80(20%)	400(100%)

Source: *Field Survey Data 2024*

The table above shows how the questionnaires were distributed to male and female respondents in the categories of gender for traditional rulers 66(16.5%), women leaders 66(16.5%), youth leaders 67(16.7%), and church leaders 67(16.7%) respectively; living in oil-bearing communities in Niger Delta to confirm a total distribution of 400(100%) questionnaires.



Table 4: To what extent does the Oil-firms' Eco-Life Sustainability Marketing activities of protecting the flora, improves agricultural economic crops production in oil-bearing communities in Niger Delta? (n = 368).

Question	Items	SA	A	D	SD	TOTAL	X	DEC
Improvement in agricultural economic crops production in oil bearing communities has been drastically reduced with the use of :								
1.	Oil pollution reduction methods	60/240 (16%) (A+SA) = 117	57/171 (16%) (D+SD) = 251	110/220 (30%)	140/140 (38%)	771/368 100%	2.09	+V
2	Oil Pollution Prevention Monitoring Center	62/248 (16%) (A+SA) = 112	50/150 (14%) (D+SD) = 256	129/258 (35%)	127/127 (35%)	783/368 100%	2.12	+V
3	Immediate Financial Compensation for Oil-Spills Damages	47/188 (13%) (A+SA) = 100	53/159 (14%) (D+SD) = 268	137/274 (37%)	131/131 (36%)	752/368 100%	2.04	+V
4	Sustainable Financial Grant together with fertilizer to Farmers	54/216 (15%) (A+SA) = 110	56/168 (15%) (D+SD) = 258	121/242 (33%)	137/137 (37%)	763 /368 100%	2.07	+V
5	Oil Pollution Investigation and Control Department	56/244 (15%) (A+SA) = 130	747/222 (20%) (D+SD) = 238	111/222 (30%)	127/127 (35%)	795/368 100%	2.16	+V
Total Percent Grand Mean		63%		37%		= 100%	2.10	+V

Source: *Field Survey Data 2024.*

Based on the benchmark used in the study, and the descriptive content details of the questions shown on table 4 above, the high percentage value of 63% agreed response was in favor of the total grand mean value of **2.10**, which fall within bench mark rating scale of **1.50-2.49** (30% - 49%), which descriptively indicates that “the Eco-Life sustainability marketing activity of protecting the flora by oil firms has to a **low extent**, improved the trend of improves agricultural economic crops production in oil-bearing communities in Niger Delta”. Conventionally, this implies that the Eco-Life sustainability marketing activity of the oil firms was low enough to protect the flora; thus, reduce agricultural economic crops production in the oil-bearing communities in Niger Delta.

Table 5: To what extent does the Oil-firms' Eco-Life Sustainability Marketing activities of protecting the fauna, improved green agricultural market in oil-bearing communities in Niger Delta? (n = 368).

Question	Items	SA	A	D	SD	TOTAL	X	DEC
1	Oil firms' Eco-Life sustainable marketing practice of protecting the fauna has to a large extent, discouraged sustainable agricultural market in oil-bearing communities.	102/408 (28%) (A+SA) = 232	130/190 (35%) (D+SD) = 136	64/128 (17%)	72/72 (20%)	798/368 100%	2.16	-V
2	Oil firms' Eco-Life sustainable marketing practice has highly promote green agricultural market failure in the oil-bearing communities.	82/328 (22%) (A+SA) = 204	122/366 (33%) (D+SD) = 164	48/96 (14%)	116/116 (32%)	906/368 100%	2.46	-V
3	Oil firms Eco-Life sustainable marketing practice of protecting the fauna has extensively threatens agricultural productivity in the oil-bearing communities.	70/280 (19%) (A+SA) = 143	73/219 (20%) (D+SD) = 225	113/226 (31%)	112/112 (30%)	837/368 100%	2.27	-V
4	Oil firms methods of protecting the fauna has highly promote oil pollution to reduce green agricultural food production in the oil-bearing communities.	52/208 (14%) (A+SA) = 138	86/258 (23%) (D+SD) = 130	131/262 (36%)	99/99 (27%)	827/368 100%	2.24	-V
5	Inefficient management of oil pollution prevention techniques on pipe line corrosion is greatly responsible for agricultural failure in the oil-bearing communities.	125/500 (34%) (A+SA) = 126	108/324 (29%) (D+SD) = 245	81/162 (22%)	54/54 (15%)	841/368 100%	2.28	-V
Total Percent Grand Mean		46%		54%		= 100%	2.28	-V

Source: *Field Survey Data 2024*



Based on the benchmark used in the study, and the descriptive content details of the questions shown on table 5 above, the high percentage value of 54% agreed response was in favor of the total grand mean value of **2.28**, which fall within bench mark rating scale of **1.50-2.49**(30%-49%), which descriptively indicates that “Oil-firms’ Eco-Life Sustainability Marketing activities of protecting the fauna has to a **low extent**, improved green agricultural market in oil-bearing communities in Niger Delta” Conventionally, this implies that the Eco-Life sustainability marketing activities of the oil firms was low enough to protect the fauna, and as such reduced the value of green agricultural market in the oil-bearing communities in Niger Delta.

Table 6: To what extent does the Oil-firms’ Eco-Life Sustainability Marketing activities of sustaining the natural marine lives, improved marine agricultural economic production in oil-bearing communities in Niger Delta? (n = 368).

Question	Items	SA	A	D	SD	TOTAL	X	DEC
	Sustainability of the natural marine lives to improve agricultural economic marine production has been frustrated by oil pollution caused by:							
1.	Ineffective Pipeline Corrosion Detective Device	100/400 (27%) (A+SA) = 229	129/387 (35%)	72/144 (20%) (D+SD) = 139	67/67 (18%)	998/368 100%	2.71	- V
2	Ineffective Oil Pollution Treatment Center	134/536 (36%) (A+SA) = 234	100/300 (27%)	62/124 (17%) (D+SD) = 134	72/72 (20%)	1032/368 100%	2.80	- V
3	Unsustainable Oil Spills Auditing Device	103/412 (28%) (A+SA) = 224	121/363 (33%)	74/148 (20%) (D+SD) = 144	70/70 (19%)	993/368 100%	2.69	- V
4	Unsustainable Oil Pollution Control Department	122/488 (33%) (A+SA) = 235	113/339 (31%)	49/98 (13%) (D+SD) = 133	84/84 (23%)	995/368 100%	2.70	- V
5	Ineffective Oil Pollution Prevention Monitoring Team	107/428 (29%) (A+SA) = 245	138/414 (38%)	72/144 (20%) (D+SD) = 123	51/51 (14%)	1037/368 100%	2.81	- V
Total Percent Grand Mean		63%		37%		= 100%	2.74 +V	

Field: **Survey Data 2024**

Based on the benchmark used in the study, and the descriptive content details of the questions shown on table 6 above, the high percentage value of 63% agreed response was in favor of the total grand mean value of **2.74** that fall within bench mark rating scale of **2.50-3.49**(50%-69%); which descriptively indicates that “Oil-firms’ Eco-Life Sustainability Marketing activities of sustaining the natural marine lives has to a **moderate extent** improved marine agricultural economic production in oil-bearing communities in Niger Delta”. Conventionally, this implies that the Eco-Life sustainability marketing activity of the oil firms was not active enough to improve marine agricultural economic production in oil-bearing communities in Niger Delta.



Table 7: To what extent does the Oil-firms' Eco-Life Sustainability Marketing activities of maintaining productive agricultural land, improved agricultural food production in oil-bearing communities in Niger Delta? (n = 368).

Question Items		SA	A	D	SD	TOTAL	X	DEC
1.	Oil-firms Eco-Life sustainability marketing practice has extensively increase agricultural land destruction in oil-bearing communities in Niger Delta.	102/408 (28%) (A+SA) = 232	130/190 (35%)	64/128 (17%) (D+SD) = 136	72/72 (20%)	798/368 100%	2.16	-V
2	Oil firms' unwillingness to avoid incessant oil pollution on the limited agricultural land space is highly driven by the firms' selfish profits making intention.	82/328 (22%) (A+SA) = 204	122/366 (33%)	48/96 (14%) (D+SD) = 164	116/116 (32%)	906/368 100%	2.46	-V
3	The poor maintenance culture of the oil firms has on a large scale reduced pipe line corrosion to ensure quality land value improvement.	70/280 (19%) (A+SA) = 143	73/219 (20%)	113/226 (31%) (D+SD) = 225	112/112 (30%)	837/368 100%	2.27	-V
4	Oil firms' Eco-Life sustainability marketing practice, has on a very low scale prevents agricultural land limitation in the k oil-bearing communities.	52/208 (14%) (A+SA) = 138	86/258 (23%)	131/262 (36%) (D+SD) = 130	99/99 (27%)	827/368 100%	2.24	-V
5	Incessant oil spills that causes agricultural land limitation in the oil-bearing communities has reduced agricultural food production.	77/308 (21%) (A+SA) = 123	46/138 (13%)	137/274 (37%) (D+SD) = 245	108/108 (29%)	841/368 100%	2.28	-V
Total Percent Grand Mean		46%		54%		= 100%	2.28	-V

Source: *Field Survey Data 2024.*

Based on the benchmark used in the study, and the descriptive detail content of the questions shown on table 7 above, indicates high percentage value of 54% disagreed response in favor of the total grand mean value of **2.28**, which fall within the bench mark rating scale of **1.50-2.49**(30%-49%); which descriptively indicates that "Oil-firms' Eco-Life Sustainability Marketing activities of maintaining productive agricultural land, has to a **low extent** discourage improvement of agricultural food production in oil-bearing communities in Niger Delta. Conventionally, this implies that the Eco-Life sustainability marketing activity of the oil firms was not active enough to maintain productive agricultural land; as such reducing agricultural food production in the oil-bearing communities in Niger Delta.

TEST OF THE HYPOTHESES

Assumptions of the Employed Z-test model for the Hypotheses

1. The oil firms under this study is arguably observed that the firms are engaged in Eco-Life sustainability marketing activities that causes a seeming uncontrolled oil pollution hazards in Niger Delta without considering the negative impact on the agricultural economic wellbeing of the natives in the oil-bearing communities. The issue is to ascertain if, the oil firms' Eco-Life sustainability marketing activities has presently created some significant improvement on the agricultural economic wellbeing of the natives in oil-bearing communities.
2. A one-tailed test alternative is the accepted alternative hypothesis only when the null hypothesis is rejected.
3. A Z-test of the hypothesis would be used with one critical value of 0.2088 derived from 5% level of significance as obtained from the critical table value of Z scores.



4. The question items were designed in a modernized 4 point Likert scale format, and only strongly agree and agree were used as positive responses, while strongly disagree and disagree were considered as negative responses (Ani, 2012).
5. If the calculated Z score is greater than the tabulated value, then the null hypothesis would be rejected and the alternate hypothesis is accepted (Mason, Lind and Marchal, 1999).
6. Using the Z score formula:

$$Z_c = \frac{P - P_o}{\sqrt{\frac{P_o(1-P_o)}{n}}}$$

Where:

P = Percentage of positive responses

P_o = Probability of rejecting the null hypotheses

n = Sample size

Test of Hypothesis 1:

H₀₁: Oil-firms' Eco-Life Sustainability Marketing activities of protecting the flora, has not significantly improved agricultural economic crops production in oil-bearing communities in Niger Delta

H_{A1}: Oil-firms' Eco-Life Sustainability Marketing activities of protecting the flora, has significantly improved agricultural economic crops production in oil-bearing communities in Niger Delta

$$Z_c = \frac{0.229 - 0.5}{\sqrt{\frac{0.5(0.5)}{368}}} = \frac{-0.271}{\sqrt{\frac{0.25}{368}}} = \frac{-0.271}{\sqrt{0.000679}} = \frac{-0.271}{0.02605} = -0.397$$

$$= Z_{cal} = -0.397$$

$$Z_{tab} = 0.2088$$

Since Z_{cal} (-0.397) is less than Z_{tab} (0.2088); the null hypothesis (H_0) is Retained, and the alternate hypothesis (H_A) is Rejected. Therefore, it is confirmed that the Oil-firms' Eco-Life Sustainability Marketing activities of protecting the flora, has not significantly improved agricultural economic crops production in oil-bearing communities in Niger Delta

Test of Hypothesis 2:

H₀₂: Oil-firms' Eco-Life Sustainability Marketing activities of protecting the fauna, has not significantly improved green agricultural market in oil-bearing communities in Niger Delta.



H_{A2} Oil-firms' Eco-Life Sustainability Marketing activities of protecting the fauna, has significantly improved green agricultural market in oil-bearing communities in Niger Delta

$$Z_c = \frac{0.317 - 0.5}{0.5 \sqrt{\frac{(0.5)}{(368)}}} = \frac{-0.183}{\sqrt{\frac{0.25}{368}}} = \frac{-0.183}{\sqrt{0.6}} = \frac{-0.183}{0.774}$$

$$= Z_{cal} = -0.236$$

$$Z_{tab} = 0.2088$$

Since Z_{cal} (-0.236) is less than Z_{tab} (0.2088); the null hypothesis (H_0) is Retained, and the alternate hypothesis (H_A) is Rejected. Therefore, it is confirmed that Oil-firms' Eco-Life Sustainability Marketing activities of protecting the fauna, has not significantly improved green agricultural market in oil-bearing communities in Niger Delta.

Test of Hypothesis 3:

H₀₃ Oil-firms' Eco-Life Sustainability Marketing activities of protecting the natural marine lives, has not significantly improved marine agricultural economic production in oil-bearing communities in Niger Delta.

H_{A3} Oil-firms' Eco-Life Sustainability Marketing activities of protecting the natural marine lives, has not significantly improved marine agricultural economic production in oil-bearing communities in Niger Delta.

$$Z_c = \frac{0.192 - 0.5}{0.5 \sqrt{\frac{(0.5)}{(368)}}} = \frac{-0.308}{\sqrt{\frac{0.25}{368}}} = \frac{-0.308}{\sqrt{0.6}} = \frac{-0.308}{0.774}$$

$$= Z_{cal} = -0.397$$

$$Z_{tab} = 0.2088$$

Since Z_{cal} (-0.397) is less than Z_{tab} (0.2088); the null hypothesis (H_0) is Retained, and the alternate hypothesis (H_A) is Rejected. Therefore, it is confirmed that Oil-firms' Eco-Life Sustainability Marketing activities of protecting the natural marine lives, has not significantly improved marine agricultural economic production in oil-bearing communities in Niger Delta.

Test of Hypothesis 4:

H₀₄ Oil-firms' Eco-Life Sustainability Marketing activities of maintaining productive agricultural land, has not significantly improved agricultural food production in oil-bearing communities in Niger Delta.

H_{A4} Oil-firms' Eco-Life Sustainability Marketing activities of maintaining productive agricultural land, has significantly improved agricultural food production in oil-bearing communities in Niger Delta.



$$Z_c = \frac{0.229 - 0.5}{0.5 \sqrt{\frac{(0.5)}{(368)}}} = \frac{-0.271}{\sqrt{\frac{0.25}{368}}} = \frac{-0.271}{\sqrt{0.6}} = \frac{-0.271}{0.774}$$

$$= Z_{cal} = -0.350$$

$$Z_{tab} = 0.2088$$

Since Z_{cal} (-0.350) is less than Z_{tab} (0.2088); the null hypothesis (H_0) is Retained, and the alternate hypothesis (H_A) is Rejected. Therefore, it is confirmed that Oil-firms' Eco-Life Sustainability Marketing activities of maintaining productive agricultural land, has not significantly improved agricultural food production in oil-bearing communities in Niger Delta.

DISCUSSIONS

Based on the computed grand mean result of **2.10** in table 4, **2.28** in table 5, **2.74** in table 6; and **2.28** in table 7; and its related supportive total percentage result of 63% in table 4, 54% in table 5, 63% in table 6, and 54% in table 7 respectively, reveals that "The oil firms' Eco-Life sustainability marketing activities has to a **low extent** prevented agricultural economic poverty, agricultural market failure, agricultural economic frustration, and agricultural land limitation caused by oil pollution in the oil-bearing communities of Niger Delta. To justify this, the result was also, separately confirmed in the review of related literature which hinged on empirical findings and/or observations deduced from the studies in Osabie (2007); Odu (2007); Koateh and Menele (2007); Amadi and Nwomaji (2008); Aakol (2009); Perreault and Utupepo, 2011); and Schiffman and Kanuk (2009), who confirmed the content validity of the result in the view that: "The Eco-Life sustainability marketing activities of the oil firms to sustain, protecting, improving and preserving the natural land value has not only been low enough to prevent agricultural market failure, agricultural food poisoning, agricultural economic frustration, economic poverty and agricultural land limitation caused by oil pollution hazards; but the firms' Eco-Life sustainability marketing activities was also found to lack proactive improvement value to sustain the socio-economic wellbeing of the natives in oil-bearing communities in Niger Delta. On a large scale, the theoretical solutions obtained as answers to the research questions deduced from the review of related literature, agree with the scientific test results of the hypothesized variables in the study.

CONCLUSION

This study to examine the extent to which the Eco-Life sustainability marketing activities of the oil firms: Shell BP, Agip Oil Company, and Elf Oil Company have improved the quality of agricultural economic wellbeing of the oil-bearing communities in Niger Delta. Based on the analysis of the data collected, analyzed and interpreted, the study reveals that "The extent to which oil firms' Eco-Life sustainability marketing activities of the oil firms have improved the quality of agricultural economic wellbeing in oil-bearing communities has been low in Niger Delta. This leads to the conclusion that the oil firms' Eco-Life sustainability marketing activities was not only poisonous or harmful to the socio-economic wellbeing of the host oil-bearing communities, but also capable of causing lethal or deadly impact on the green



agricultural economic yields; which its *Societal Marketing Based Ethical Value(SMBEV)* ' to sustain, protect, improve and preserve the natural agricultural land value, agricultural economic crops production, green agricultural market and natural marine lives. These are associated with the oil firms' efforts to encourage green agricultural market failure, agricultural food poisoning, economic poverty, agricultural economic frustration, and frustration of agricultural economic marine production with incessant oil pollutions in Niger Delta.

RECOMMENDATIONS

Based on the findings obtained from this study, the following recommendations were deduced.

1. Oil firms should formulate "Flora Protection and Sustainability Policy (FLORA-PROSUP)," and apply it to "Crops Production Eco-Life Sustainability Marketing Decisions" of the oil firms to improve agricultural economic crops production. This will help to sustain the economic wellbeing of the natives from land related oil pollution that will discourage agricultural crops production.
2. Oil firms should formulate "Fauna Protection and Sustainability Policy (FAUNA-PROSUP)," and apply it to "Green Agricultural Market and Eco-Life Sustainability Marketing Decision" of the oil firms to improve green agricultural market. This will help to sustain the economic wellbeing of the natives from land related oil pollution that will frustrate agricultural production and green agricultural market in oil-bearing communities in Niger Delta.
3. Oil firms should also establish "Environmental Protection and Responsibility Marketing Unit" (EPARMU), in the marketing department of oil firms to oversee all issues concerning protection of natural marine lives from harmful oil pollution in the host community. This will help the oil firms to manage their oil pollution issues affecting marine lives and improve agricultural economic marine production.
4. Oil firms should also formulate "Host Community Land Preservation Development Policy (HOSTCOM-LPDP)" alongside the appointed team of environmental marketing professionals to work with a set of representatives drawn from the host communities to oversee issues affecting maintenance of productive agricultural land, preservation and protection of fertile land. This will help to enable the oil firms adopt proactive improvement measures on agricultural food production security in the host community.

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