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ENVIRONMENTAL SECURITY AND SUSTAINABILITY: KEY TO THE FUTURE

PROF. IMOH ETUKUDO UKPONG
Department of Geography and Regional Planning
Faculty of Social Sciences
University of Uyo, Uyo
Akwa Ibom State, Nigeria.

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ROGERS IBIFUBARA WILCOX (Ph.D)
Department of Geography and Regional Planning
Faculty of Social Sciences
University of Uyo, Uyo
Akwa Ibom State, Nigeria.
riwilcox@yahoo.com 08037763219

&

ENGR ANTHONY PATRICK AKADI (Ph.D)
Eket,
Akwa Ibom State, Nigeria.
anthonyakadiuvo@yahoo.com 08066660460

Abstract

Over the past two decades, following the publication of Our Common Future, much effort has been made to develop principles for sustainable development. It was reasoned that without such principles or guidelines, it would not be possible to determine if a policy or guideline is sustainable, or if initiative are consistent with sustainability. The creation of such guidelines was difficult because, as the Commission observed; economic and social systems and ecological conditions vary greatly among countries. The result was that no generic model could be established, and each country would have to work out what was appropriate for its context, needs, conditions and opportunities. However, despite these, some systematic attempts have been made to identify the characteristics of a sustainable society. The aim therefore, is to ensure environmental conservation and development while sustaining man through wise-use of resources to ensure environmental security and sustainability for secured future.

KEYWORDS: Sustainable development, Environmental Security, Environmental Scarcity Environmental Sustainability, Sabotage Practice.

INTRODUCTION
ENVIRONMENTAL SECURITY A BACKGROUND

Environment has been variously defined by various authors on various perspectives. The term 'environment' refers to the aggregate of all the external conditions and influences affecting the life and development of organisms (Fadamiro, 1995). It consists of abiotic and biotic components (including man) that interact with one another (Ero. 1997). The interactions also include the dominance of one some species of organisms over others.

At the end of the Cold War, experts in security studies shifted focus away from the conventional sources of conflicts such as inter-state relations and the military to new sources of conflicts. One such focuses was environmental security. Which denotes the sufficiency in environmental resources to support the needs of individuals and groups whose survival depends on such resources? Its converse is environmental scarcity, which Homer-Dixon (1999), in Mathew (2002), regards as a product of an insufficient supply of an unequal distribution of, or too much demand for a resource that forces some sector of a society into a condition of deprivation.

This shift in focus was necessitated by a growing realization that in spite of the absence of a nuclear threat or a Third World War, made possible by the end of supper-power rivalry, the world was not at peace: over 85% of major wars in the 1990s took place within national borders, nearly all in the developing nations (Aaron 2005).

In the closing decade of the last century, 15 of the world's poorest nations experienced widespread conflicts with civilians at greatest risks: about 1,400 non-combatants were dying daily in the 1990_s as a result of these conflicts. During the same period, the UN Organization of Humanitarian Assistance point out that the world expended a whopping US$30 billion "largely for response to, and recovery from conflicts". Nearly 35 million people were also displaced as a consequence of these conflicts (Mathew, Halle and Suitzer, 2002, Stalley, 2003).

What were the issues behind the rising tide of these intra-state conflicts? Robert Kaplan (1994) in his highly apocalyptic study, 'The Coming Anarchy', identified overpopulation, refugee migrations, easy access to arms and resource scarcity, among others, as the veritable sources of conflicts. The problems, though largely typical of developing nations, according to him, is gaining critical mass at the global area. While some people were persuaded by his arguments, Dalby (1996), in Mathew (2002), in his analysis, saw Kaplan as being unduly alarmist, culturally insensitive, one-directional and analytically impoverished. Resource scarcity is of analytic value to us because a burgeoning body of literature is increasingly recognizing environmental problems such as land scarcity, deforestation and pollution as stoking the fires of conflicts within nations (2002). By some accounts, Williams (2002) in Stalley (2003), observes that many vital environmental resources, are increasingly in short supply. This is not surprising, as the world is currently consuming 20% more natural resources per year than can be regenerated (Williams, 2002) it is against this background of resource scarcity-induced conflicts that the environment is being increasingly recognized as a notional security issue of the early 21th century (Kaplan, 1994).

The salience of environmental security as a national security issue in Nigeria has played itself out as recent events would show. In the Niger region of Nigeria, The greed of oil transnational corporations (TNCs), as expressed in their adoption of environmentally harmful and unsustainable practices in oil and gas exploration and exploitation on the hand and the grievance of people in oil producing communities, fueled by a growing sense of inequities inherent in the oil economy and insecurity arising from loss of livelihoods on the other, have combined to worsen the environmental conditions of the region (Aaron 2005).

GOALS AND OBJECTIVES

The essential goal of this study is to generate ideas on how to insure environmental security in the Niger Delta as a bulwark for sustainable development and veritable to key to the future. Specifically, our goals and objectives are to:

- Improve understanding on the concept of environmental security
- Stimulate debate on how to insure environmental security through the adoption of environmentally sensitive processes of oil and gas exploration and exploitation
- Increase the understanding of environmental sustainability as key to sustainable.
- Explore options which would incorporate the interests of oil-bearing communities as critical stake holders in the oil economy
- Generate informed insights into the broader implications of sabotage practices, especially, their effects on the environment.

MAIN ARGUMENT

The essential argument that runs through the study is that the environmentally harmful practices of oil and gas TNCs have compromised the environmental security of the Niger Delta. These practices have been well documented in scholarly works that it would be redundant for us to be detained any further (Hutchful, 1985, ERM, 1997, Ibeany, 1997, Clark et al 1999, Human Rights Watch 1999, Owugah, 2000, Owabukereyule, 2000, Lobe, 2002, Doyle, 2004, not accidentally, the UNDP (2004), citing sources from the University of Columbia Centre for International Earth science information Network concludes that Nigeria's environmental performance has been poor, ranking 133rd of 142 countries surveyed in environmental sustainability index with Environmental Sustainability index (ESI) of 36.7.

The crisis of environmental degradation in the Niger Delta has been implicated in the reduced fishing and farming yields, the region's inhabitant's primary sources of livelihood. This loss of livelihood, coupled with a growing perception of inequity inherent in oil revenue sharing have galvanized the Niger Delta youth into adopting desperate strategies of survival such as pipelines vandalisation and preventing oil company staff from access to oil spill sites for environmental remediation measures (Aaron 2005). This is done, ostensibly to derive benefits of the oil economy, at sources, as it were, since the existing legal and economic framework

is widely perceived to have alienated them from what they believe is, speaking, their resources as Ifeka (2001) notes:

Frustrated by their exclusion from the benefits of the oil economy, militant youths attack oil company installations. These angry subalterns believe that their communities own and should (take) control of the natural resources in their vicinity.

Recent industry statistics indicate that there has been an unprecedented rise in incidents of pipelines rupture over the past few years in the Niger Delta region, most of it attributable to sabotage. Specifically, in 1999 542 incidents of pipelines rupture were recorded, out of which 497 were clear cases of vandalisation. During the first six months of 2000, about 400 incidents of pipeline had been reported of which 383 were put down as sabotage. Based on this figure, the pipelines and product marketing company made a projection of 764 cases of pipelines vandalisation for that year. This figure proved a gross underestimation: about 900 cases of vandalisation were actually recorded by the end of that year (The Tide 26 July 2001). The cost has be quite high in terms of human and material losses arising from pipelines fires, replacement of damaged pipelines, irregular supply of petroleum products and the exacerbation of the problem of environmental insecurity with consequences on sources of livelihood (Aaron 2005).

The issue of sabotage as an explanatory variable for the rising incidents of pipelines rupture remains a hotly contested one. Oil companies and the government insist that sabotage is the handiwork of criminals and local community Chiefs, who expect to benefit from clean-up contracts. Communities, on the other hand, maintain that pipelines ruptures are a result of old and decrepit nature of pipelines and that sabotage is usually alleged by oil companies to avoid paying compensation since by Nigeria law, sabotage attracts no compensation

It is our view that the debate on the major explanatory variable for the rising incidents of pipelines rupture in the Niger Delta is somewhat sterile. Based on the mounting evidence, as shall below, not to accept sabotage as the major explanatory variable for pipelines rupture is to be both intellectually dishonest and empirically out of touch with reality. As SPDC (2004:21) reports:

Two spill incidents occurred at Elelenwo new Manifold, the first on 30th September 2001 and the second on 4th July 2002. Both spills resulted from the removal of pipe flange bolts and nuts by persons unknown. Initial efforts by SPDC to clean up the site were frustrated by the community as access was not allowed. The community demanded Payment of access fees and also insisted that their nominated contractor be used to clean-up the site.

This experience of Shell (SPDC) is not an isolated case but indeed, appears to be the emerging pattern of post-vandalisation reaction of communities where spills are recorded (Aaron, 2005).

By taking the position that sabotage plays a major role in recent pipelines ruptures, it is not intended to serve the agenda of petrobusiness, which uses sabotage as a justification for non-payment of sabotage-induced oil spills. To do so not only amounts to blaming the victim but also does not promote understanding of the objective conditions that has thrown up the phenomenon of sabotage. The reality in the Niger Delta is that the rising incidents of sabotage should be contextualized as a response to the widespread poverty and institutionalized deprivation spawned by the oil economy. But this is no endorsement to sabotage, as it holds out the potential of deepening the crisis of environmental security in the region.

SUSTAINABLE DEVELOPMENT

Sustainable development on the other hand is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development contains two key concepts. These are:

1. Needs, especially the need of the poor people of the world, to which over-riding priority was essential: and
2. Limitations created by technology and social organization regarding the capacity of the environment to satisfy both present and future needs. Therefore sustainable development is an anthropocentric (human centre) concept.(Bruce, 2002)

Sustainable development was popularized in the report, *Our common future* prepared by the World Commission on Environment and Development (WCED) (1987), also referred to as the Brundtland Commission, after its chairperson Gro Harlem Brundtland. Gro Brundtland explained in the Foreword to *Our Common Future* that she was invited in December 1983 by the Secretary-General of the United Nations to conduct an inquiry and prepare a report to provide a global agenda for change. The terms of reference fro the General Assembly of the United Nations was: (Ukpong 2009):

a. To propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond: and

b.   To identify how relationships among people, environment and development could be incorporated into national and international policies.

It was explicit in the report that many development activities were leaving growing numbers of people poor and vulnerable and at the same time were degrading the environment. The world Commission on Environment and Development (1987) states clearly:

those who are poor and hungry will often destroy their immediate environment in order to survive: They will cut down forests, their livestock will overgraze grasslands; they will over use marginal land, and in growing numbers they will crowd into congested cities. (WCED, 1987).

These could lead to what we called environmental scarcity or environmental insecurity. This statement indicates that a new path for development was needed, one that would sustain human progress into a more distant future. Therefore the world's main environmental problem was judged also to be its main development problem. The commission focused on populations, food security, loss of species and genetic resources, energy, industry and human settlements. All these were deemed to be inter-connected and therefore could not be treated separately. It stipulated that every ecosystem in every place could not be preserved intact because economic growth and development inevitable involved changes. (Francis, 1995).

The Brundtland Commission identified several critical objectives for environment and development policies. These were.

i.   Reviving growth;
ii.   Changing the quality of growth (emphasizing development rather than growth):
iii.   Meeting essential needs for jobs, food, energy, water and sanitation;
iv.   Ensuring a sustainable level of population;
v.   Conserving and enhancing the resource base;
vi.   Re-orienting technology and managing risk.
vii.   Merging environment and economics in decision making.

Tow points should be highlighted here. First, the commission made it clear that while growth was essential to meet basic human needs, sustainable development involves more than growth. It required a change in growth, making it less material and energy intensive, but more equitable in its impacts. Second, a common theme in the strategy for sustainable development had to be integration of economic and ecological considerations in decision making. There would have to be changes in attitudes and objectives and in institutional arrangements and laws at every level. Common interests would have to be protected through community knowledge and support, which in turn would necessitate more public participation in decisions about the environment and resources. (Ukpong, 2009).

PRINCIPLLES OF SUSTAINABLE DEVELOPMENT

While sustainability is regarded as a vision or an end for resource and environmental management, which in turn environmental security, the ecosystem approach can be viewed as one means to achieve sustainability or sustainable development. Ecosystem management has increasingly provided the goals and framework for land, wildlife and protected area management. Generally ecosystem management is the process of managing and understanding the interaction of the biophysical and socio-economic environments within a similar region or larger system. Ecosystem management involves finding institutional and administrative, as well as scientific ways of managing whole ecosystems instead of the small. Arbitrary management units that are found almost everywhere, (Slocombe, 1988)

As environmental degradation and change continues, decision makers and managers are under pressure to rectify the situation. Likewise, scientists are under pressure to device single and clear rules for proper ecosystem management. But systems theory suggests that ecosystems are inherently complex, that there may be no simple answers and that our traditional managerial approaches, based on simple rules, may not be explicit enough to provide the needed solutions. In order for the scientific method to work, an artificial situation of consistent reproducibility must be created through simplification of the situation to the point where it is controllable and predictable. To achieve this means that the very complexity which is an inherent part of ecosystems is removed. Therefore we need new ways of the science of ecosystem management, which will emphasize the management of our interactions with ecosystems rather than management of ecosystems *per se.*

In developed countries, the primary interest regarding suitable development has been to integrate environmental and economic considerations into decision making. Considerable attention has also been focused on intergenerational equity issues. The developed countries have also argued that developing countries should modify their economic activities to avoid destruction of rain forests and other resources with global value. On the other hand, the priority of the developing countries regarding sustainable

development has been to meet the basic human needs of its present citizens and to ensure economic development. Therefore the focus has been more upon intergenerational than intergenerational issues. There has been, understandable so, resentment from the developing countries when industrialized nations suggest that they should forgo development opportunities by harvesting rain forests in order to protect the global environment.

Sustainable development according to Akialeye (2003), was initially measured purely from the economic perspective by judging a nation through its across National Product (GNP), that is, its per capital income, low income, middle income and high income, etc. He stated that a new era has emerged in which a new front of knowledge has been presented. The new era is focused in popular participation, decentralizing decision making and sustainable development. According to Amodu (2008) the environment has deteriorated over the years, if the current trend is kept, the fate of the future generation can best be imagined.

Governments of different countries at different levels embark on development projects, the target of most of the development projects are the poor. The poor embark on various activities that have direct impacts on the environment. Destruction of forests for fuel (fire wood), building of slums and utilization of marginal land for various activities are being embarked upon by the poor since they cannot afford to pay for land. Their activities have direct impact on the environment as noted earlier. The activities of the poor are not sustainable since they are interested in taken care of the present needs, food, clothing and shelter.

The deterioration of the environment and natural resources has severe consequences on the economic development. The whole responsibility of managing the economy and preserving the environment has been on the government and this has brought about conflict of interest and diversion of revenue to the detriment of certain urgent matters.

There are other dimensions to environmental sustainability that is referred to Eco-efficiency. According to Enahoro and Ebi-Ebewale (2008) Eco-efficiency suggest that organizations can engage in useful productivity while simultaneously reducing negative environmental impacts, resource consumption and cost. Eco-efficiency, according to them further suggests that rather than focusing on the consequences of negative environmental impact, attention should be on attacking the causes. Hansen and Mowen (2002), suggest at last three important messages on the concept of eco-efficiency. Firstly, improving ecological and economic performance which should be seen as complementary, and secondly, that improving environmental performance should not be viewed as charity and good will but a matter of competitive necessity. On the contrary Rubenstein (1990) opined that social costs (i.e environmental costs) which are not matched with related revenue are incurred not for the good of the individual company but for the society. A third suggestion is that Eco-efficiency should be seen as supportive of sustainable development.

Eco-efficiency which has been emphasized as Environmental Management System (EMS), Gray and Bebbington (2006), and Walley and Whitehead (1994), is the application of accounting design to attain financial and economic savings in resource usage, reduction of wastes energy and emissions that will necessarily lead to reductions in corporate impact on the environment.

SUSTAINABILITY: WHICH WAY TO FOLLOW?

Sustainability encourages attention to both the present and the future to incorporate economic, environmental and social considerations into planning and management; to recognize that policies, laws, regulations and institutions must evolve to deal with the linkages and complexity of the world; to combine technical and local knowledge system; and to seek to change underlying values beliefs and attitudes. No single path is appropriate to achieve sustainability, as the ends and means towards it should reflect the specific needs, opportunities and obstacles existing at a specific place and time. Thus the ability to understand the context of a problem-solving situation, and to custom design a solution, should be key elements for a successful approach. The principles of sustainability are given in Table 1.

Table 1: The Principle of Sustainability*
A. Environmental/Ecological Principles
1. Protect life support systems
2. Protect and enhanced biotic diversity
3. Maintain or enhance integrity of ecosystems and develop and implement rehabilitative measures for badly degraded ecosystems
4. Develop and implement preventive and adaptive strategies to respond to the threat of global ecological change.

B. Socio-Political Principles

B1 from environmental/ecological constraints

1. Keep the physical scale of human activity below the total carrying capacity of the planetary biosphere.
2. Recognize the environmental cost of human activities; develop methods to minimize energy and material use per unit of economic activity; reduce noxious emissions; decontaminate and rehabilitate degraded ecosystems.
3. Ensure socio-political and economic equity in the transition to a more sustainable society.
4. Incorporate environmental concerns more directly and extensively into the political decision making process.
5. Ensure increased public involvement in the development, interpretation and implementation of sustainable development concepts.
6. Link political activity more directly to actual environmental experience through the relocation of political power to more environmentally meaningful jurisdictions.

Source: Robinson et al, 1990

*Here, from Socio-political criteria is deliberately removed from the original table

CONCLUSIONS AND REFLECTIONS

Akachukwu (1997) pointed out that, in the last hundred years the Nigerian environment has been deteriorating at alarming rate with adverse effects on human, wildlife, livestock and on the economic activities of the country.

We have argued in this paper that the environmentally harmfully processes of oil and gas exploration and exploitation by oil TNCs have created a crisis of environmental security in the Niger Delta, with adverse consequences on livelihoods. In response, some inhabitants of the region who feel sufficiently frustrated with the reality of the inequities of the oil economy have adopted desperate strategies of survival such vandalizing pipelines with the expectation of being paid compensation, if a case of sabotage is not established, or insisting on being paid access fees before allowing company staff to gain entry to sites of oil spill for environmental remediation measures. Though the issue of sabotage is a hotly contested one between oil companies and government on the hand and community people on the other, we are of the view that the argument is at best, sterile. This is because a growing body of evidence consistently point to the direction of sabotage as a major explanatory variable for the rising incidents of sabotage in the Niger Delta. The reality is that the environment, which is pivotal to human survival has been a victim, in the first place of the greed of oil TNCs and in the second place of the grievance of alienated and deprived people of oil bearing communities.

What should be important for us is to address the following questions:

+ In what fundamental ways do the activities of oil TNCs threaten environmental security in the Niger Delta?
+ In what important ways do the activities of some people, notably pipelines vandals, pose a threat to environmental security?
+ How do the two questions raised above threaten human security/survival in the region
+ In what fundamental ways should the oil TNCs change in their current business practices in the region that will insure environmental security?
+ What options should the Nigeria state and the oil TNCs adopt to incorporate the interests of oil-bearing communities, as critical stake-holders in the oil economy?
+ Finally, what incentives do we put in place to discourage sabotage practices and thus promote environmental security?

Resource management, environmental development has continued to provide a combination as concepts that are embedded in any conscious process of resource decision making that involves judgment, reference and administrative alternatives in securing the future.

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