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Poverty, Environmental Degradation and Sustainable Development: A Discourse

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Abstract - This paper is a contribution to the ongoing debate on the topical issues of poverty, environmental degradation and sustainable development by highlighting the divergent views and attempting an explanation of the diversity. Poring through the literature, the authors observed that there are three discernable debaters on the trajectory between poverty, environmental degradation and sustainable development namely: those who argue that the poor (the South) is the major cause of environmental degradation as a result of high population and increased pressure on environmental resources; those who contend that the high consumption propensity of the rich (the North) is the main factor in environmental degradation; and, those who argue that both the rich and the poor, in varying capacities, contribute to the unsustainability of the environment.

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Poverty, Environmental Degradation and Sustainable Development: A Discourse

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Abstract - This paper is a contribution to the ongoing debate on the topical issues of poverty, environmental degradation and sustainable development by highlighting the divergent views and attempting an explanation of the diversity. Poring through the literature, the authors observed that there are three discernable debaters on the trajectory between poverty, environmental degradation and sustainable development namely: those who argue that the poor (the South) is the major cause of environmental degradation as a result of high population and increased pressure on environmental resources; those who contend that the high consumption propensity of the rich (the North) is the main factor in environmental degradation; and, those who argue that both the rich and the poor, in varying capacities, contribute to the unsustainability of the environment. The authors believe that quantitative data are required to ascertain whether the poor (South) more than the rich (North) degrade the environment, or not. Until such evidence is found, the North-South dichotomy on ecological issues will persist. One common thread that runs through the various views is that there is continued degradation of the environment the negative impact of which affects both the poor and the rich. As such, the quest for sustainable development should be utmost concern of all.

Keywords : Poverty, environmental degradation, sustainable development, north-south dichotomy, debt-resource hypothesis.

I. Introduction

The concern about sustainable development to a large extent stems from the universal concern about environmental degradation arising from natural resource exploitation and utilization. Although high consumption propensity of the affluent has been fingered as a factor in environmental degradation, so much weight has been given to the social problem of poverty as a major factor in environmental degradation especially among developing countries. Indeed, the intertwining relationship between environmental resource exploitation, the problem of sustainable development and poverty is crucial as it is paradoxical.

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Exploitation and extraction of environmental resources that are not sustainable can lead to environmental degradation which will in turn impoverish the people. On the other hand, the clamour for environmental conservation without alternative means of livelihood for the vulnerable group who solely depend on exploiting the environment, will result to further impoverishment.

While we still lack reliable data on the extent of environmental degradation caused by both the rich and the poor, the bottom line is that both are variously affected by the ecological problems resulting from it. The paradoxical relationship between these variables is made more evident as we pore through the literature in subsequent sections of this paper.

II. Poverty and Environmental Degradation

It is becoming increasingly accepted in academic quarters that there exists a relationship between accelerated exploitation of environmental resources and poverty (Heady, 2000; Neumayer, 2005). Commenting on the nature of this relationship, Anijah-Obi (2001) observes:

> It has been widely acknowledged that poverty, a deplorable state of human welfare, is closely linked to environmental degradation. The poor are both victims and agents of environmental damage. Poverty may be created by negative and unjust social conditions such as structural inequality. The concept of equity and meeting the needs of the citizens is central to sustainable development…Those who are poor and hungry will often destroy their immediate environments in order to survive. They are responsible for tilling tired soils and cutting down forests. They live in slums and throw waste into gutters and streams, because they lack the basic necessities of life. They lack resources and materials necessary for living within a minimum standard conducive to human dignity and well-being.

Heady (2000), and Anijah-Obi (2001) also contend that, there is a relationship between poverty

and environmental resource exploitation. Buttressing his argument, Heady (2000) puts it thus:

> There are important links between natural resource management and poverty. Many poor people, particularly in developing countries, rely on natural resources for their livelihood, and these people are very vulnerable to deterioration in the resource. This has been demonstrated tragically by the recent famines in sub-Saharan Africa, and less dramatically by the declining living standards of fishing communities in Britain and Canada.

Okunmadewa (1997) cited in Anijah-Obi 2001:188) expressed his view on the relationship between environmental resource exploitation, poverty and the problem of sustainable development by observing the closeness of the rural poor to environmentally fragile natural resources and higher levels of resources decline via soil degradation and loss of tree cover, among others.

Since the Stockholm conference of the early 70s, the North has insisted that the population explosion in the South (that is, developing countries) is the major factor in environmental degradation while the South argued that it was the high rate of consumption of the North (that is, developed countries) that degrades the environment. Essentially, mankind's survival and standard of well-being depends on the environment which ought to be exploited and managed efficiently. Pointing out the relevance of the environment for mankind's existence as well as its role in environmental degradation, Animashaun (2002) observes thus:

> Man depends on the natural environment for his multifarious needs. His food, shelter and clothing are products of the natural environment. Man exploits swamps, forest, grassland, rocks, the atmosphere, water and other resources of his natural environment to satisfy these basic needs… Because of its crucial role to life, man has intervened inadvertently in the natural environment and has caused serious disturbance to its natural equilibrium… Today, the rate of exploitation of natural resources is faster than the time it would take nature to replenish them.

Nonetheless, in the process of exploiting environmental resources to satisfy increasing needs, mankind has utilized culture and technology that have caused untold imbalance to the ecosystem. The use of dams and irrigation as well as soil additives, chemicals and other non-natural techniques of improving yield have also contributed to environmental degradation.

Most studies on the poverty linkage of the problem of sustainable development have concentrated on the conventional definition of poverty – living below certain income level and inability to provide the basic necessities of life. So defined, the indices of poverty include the percentage of persons in specific category who are below the poverty income threshold. Thus, the larger the percentage of those living in the defined poverty situation, the more complex the management of the environment towards sustainability as poverty degrades the environment thereby creating environmental stress (Anijah-Obi, 2001).

Indeed, environmental resource exploitation and the problem of sustainable development have multidimensional causes and effects. Government's deliberate effort at development has directly or indirectly resulted in impoverishing a segment of the population especially the rural poor. Thus, social engineering or "politically" designed progress has its own share of the blame of the environmental degradation that is causing severe hardship to the poor. One of such development problem was captured by Enloe (1975) in a story by a 10 year old daughter of Japanese fisherman thus:

> When my father pulled in the net faded seaweeds hung down from his hands, His lips moved slowly when he said, "This is the last time I'll pull the net this year" The highway runs across the pools where the seaweeds grow. Everybody likes the highway but it's made a crack between the ocean and my father and my mind.

This anguish of the Japanese girl is shared by many. As the environment becomes increasingly degraded due to government deliberate policies and resource exploitation mechanisms which make the quest for sustainable development very unstable, more people are impoverished as many others recklessly exploit the environmental resources due to their poverty situation. On the other hand, Animashaun (2002) presented the relationship between poverty and environmental degradation thus:

> The justifiable fear is that because a majority of the present world population is living a precarious life characterized by malnutrition and poor health, the human race may through its own making, become extinct in the future except man is judicious in his use of the environment….

That the poor depend extensively on firewood for fuel is no more news. What is news is the increasing demand for this resource propelled by the burgeoning population of the country (Anijah-Obi 2001). This view of environmental degradation is essentially that of the developed countries as evidenced in the North – South dichotomy in the debate on environmental degradation and ozone layer depletion. The stand of the North and South on environmental degradation and sustainable development is, no doubt influenced by their world view and ideology as evident in the work of Uchendu (1965) cited in Nwagbara (2007). However, since globalization, the rate of consumption of environmental resources has gained momentum on both sides of the divide – the North and the South.

However, the poverty-degradation-sustainability scholars did not consider the other dimension of poverty whereby the poor bear the burden of pollution and other

deadly emissions emanating from the consumptions of the rich/affluent. Poverty as conceptualized in this paper goes beyond the conventional, everyday – life definition to look at the issue of social justice and distributive justice. This dimension focuses on the issue of equity and fairness in terms of reaping the benefits of environmental resource exploitation as well as shouldering the burden of environmental degradation. The authors argue that inequity leads to the feeling of relative deprivation which, oftentimes, culminates into social crises/upheavals such as the prevalent situation in the Niger-Delta Region of Nigeria (Nwagbara, 2008). Thus, in the face of crises occasioned by the problem of inequality and distributive justice, the clamour for sustainable development will be elusive.

III. The Issue of Debt-Resource-Hypothesis in Environmental Degradation, Poverty and Sustainable Development

Another dimension in the explanation of the relationship between the problem of sustainability, environmental degradation and the social phenomenon of poverty is the debt-resource-hypothesis. In the debt-resource-hypothesis, "many environmentalists believe that the high indebtedness of developing countries triggers increased exploitation and more unsustainable use of their natural resources" (Neumayer 2005). Accordingly, George (1989) posits that repayments of high debts are implemented "by cashing in natural resources".

In the same vein, De la Court (1992) cited in Neumayer (2005) observes that the Philippine's Freedom from Debt Coalition believes that the country's indebtedness leads to destroying their "forests to export wood, ruining our coral reefs to export fish, and exhausting our soils by applying heavy pesticides and chemical fertilizers to facilitate export-oriented agriculture".

As Neumayer (2005) noted, the debt resource-hypothesis gained currency even in the official quarters of world organizations. Neumayer cited the example of the World Commission on Environment and Development (WCED) as a crucial one. The Brundtland Commission, as the WCED is popular called, attested to the debt-resource-hypothesis in its landmark report entitled "Our Common Future" when it pointed out that "debtors are being required to use trade surpluses to service debts, and are drawing heavily on non-renewable resources to do so" (WCED, 1987). Pointing out the situation of African countries, Neumayer (2005) quoted the Brundtland Commission as stating that "debts that they cannot pay force African nations relying on commodity sales to overuse their fragile soils, thus turning good land to desert".

Following the WCED, the World Wide Fund for Nature (WWF) of the United States contended that "demand for foreign exchange to service debts … has provided an impetus for developing countries to mine their natural resources" (WWF-US, 2000:5). Other environmentalist groups have followed suit in the worry and warning about poverty or indebtedness-induced unsustainability and environmental degradation. These include Friends of the Earth (FoE), the Worldwatch Institute, and the Global Legislators Organization for a Balanced Environment (GLOBE). According to Neumayer (2005), FoE asked governments in the run-up to the World Summit on Sustainable Development in Johannesburg in 2002 "to note that external debt fuels the depletion of natural resources".

In an earlier observation, the Worldwatch Institute (2001) noted that "debt pressure has spurred increases in export-oriented mining and logging in developing countries". Re-iterating the above view, the GLOBE, made up of members of parliament from more than 100 national parliaments in their Johannesburg resolution (Neumayer, 2005), observed that "pressure of debt repayments often causes overexploitation of natural resources" (GLOBE, 2002).

This debt repayment and/or servicing commitment of developing countries has made them, according to Calvert and Calvert (1999), to give priority to what they can easily produce such as primary products that sell at low prices on the world market as well as use every incentive for "intensive agriculture to produce cash crops and to exhaust mineral resources as quickly as possible". In a simple but picturesque manner, Neumayer (2005) presented the scenario thus:

> The most common explanation of why high indebtedness might trigger increased resource exploitation and more unsustainable resource use seems to be that high indebtedness is seen as forcing countries to earn more and spend less in order to finance their debt obligations – if not a reduction of their debts, then at least servicing the interest on their debts.

This observation supports the earlier views including that of George (1992). Confirming the predicament of developing countries with indebtedness George (1992) pointed out the vicious circle attendant with this unwholesome attitude to natural resource exploitation, "with so many jostling for a share of limited world markets, prices plummet, forcing governments to seek even higher levels of exports in a desperate attempt to keep their hard currency revenues stable" (George, 1992).

In his study, Neumayer examined a few existing attempts by scholars that tried to formally model the debt-resource-hypothesis and observed that there is, indeed, lack of systematic empirical evidence in its support. One of the advocates of the debt-resource-hypothesis George (1992) observed that there was no

need for empirical or systematic quantitative analysis, noting that the facts and figures with regards to deforestation speak for themselves and suggested as follows:

- Third world countries that deforested the most or the fastest in the 1980s were also, on the whole, the largest debtors.
- In a number of smaller countries with less significant forest reserves, the fastest deforesters were also the most heavily indebted.
- Countries with the highest 'debt service ratios' or subject to the highest levels of IMF 'conditionality' also tend to be the largest and fastest deforesters.

In spite of all these, Neumayer (2005) maintains that "not all qualitative empirical evidence supports the debt-resource-hypothesis". Most of the existing quantitative analyses are based on deforestation while other environmental resources are ignored. This observation was confirmed by Pearce et al (1995) when they stated that "the impact of indebtedness on other environmental indicators such as pollution, biodiversity or depletion of other resources has not been tested".

In terms of quantitative econometric analysis, some scholarly findings reviewed by Neumayer (2005) support, while some others do not support the debt-resource-hypothesis. One of such studies that provide evidence in favour of the debt-resource-hypothesis is the one done by Kahn and McDonald (1994, 1995). By using the ordinary least squares estimation, these scholars found a statistically significant effect of the debt service to export ratio on deforestation rates in the period 1981 to 1985. However, using the same methodology in the study of Latin America, Kant and Redantz (1997) did not find any statistical significant relationship between indebtedness and deforestation. Also, Neumayer (2005) using panel data analysis did not find any correlation in support of the debt-resource-hypothesis.

IV. Sustainable Development

Scholars have observed that the concept of sustainable development is not an entirely new one (Barrow, 1995; Harwood, 1990; Pretty, 1990; Dasmann, 1985). As Barrow (1995:369) puts it, "sustainable development is a goal for a world under growing stress". Prior to the currency gained by the concept of sustainable development (SD), a sister concept – ecodevelopment – was highly promoted in the 1970s by scholars and organizations such as Dasmann et al, (1973); Sachs (1979); and Riddell (1981).

Although the concept of SD has taken the centre stage of most national and international conferences on environment, development and other related issues in the past two decades, there is no generally accepted definition of the term. Barrow (1995) observes that the concept was first used by Barbara Ward while international organizations such as UNEP, WWF and IUCN, widely popularized its subsequent usage.

The lack of consensus and the seemingly imprecision in the use of the concept has been a source of concern to scholars (The Ecologist, 1993; Esteva and Prakash, 1992). Indeed, part of the problem with conceptualization of SD is the dichotomy between the North and the South on what should constitute its meaning. As White (1994) observes,

> The conflicts between rich and poor countries – the North and the – South are a major contributory element to the confused nature of the debate. However, both parties have reasons for not wanting to clarify certain aspects of this confusion…For the North, it is difficult enough to accept that the technological basis of its society will have to undergo major modifications especially in terms of energy use, private means of transportation, and emission reduction in general….

In the main, individuals and groups use and interpret the term in various ways that reflect their varying development ethics (Barbier, 1987; Brown et al, 1987; Caldwell, 1984; Tisdell, 1988; Shearman, 1990; Soussan, 1992; Redclift, 1991; Adams and Thomas, 1993) and biases. Barrow (1995) captured some of the attempts at defining SD five of which are highlighted below thus:

1. SD is based on the moral principle of intergenerational (…bequeathing the same or an improved resource endowment to the future), inter-species and inter-group equity;
2. Economic growth and development that is complementary, not antagonistic, to environment and society…;
3. Development that satisfies the present generation without compromising the ability of future generations to meet their needs (inter-generational equity);
4. Considering the future today;
5. Improving the quality of human life while living within the carrying capacity of supporting ecosystems.

Marshall (1998) noted the definition of SD as presented in the Brundtland Report as "development that meets the needs of the present without compromising the ability of the future generations to meet their own needs". On her own part, Anijah-Obi (2001) observed that "sustainable development is all about improving the well-being of people of today and the generations of tomorrow".

Therefore, the central tenet of SD is the fact of intergenerational equity which means that the present needs of the present generation should be met but not at the expense of the future generation who will need the same or better resources. On this question of

intergenerational equity, Olaniyan and Oyeranti (2001) noted:

> Central to the question of sustainable development is the issue of intergenerational equity. This is so because of the belief that the resource base of the economy belongs to all generations. Another issue that makes inter-temporal equity a serious one is that the resource base is controlled and managed by one generation at a time, and this happens to be the present generation. Thus, by happenstance arrangement of time, a future generation can be hurt by the present generation.

In the words of Agyeman, Bullard and Evans (2005), "a truly sustainable society is one where wider questions of social needs and welfare, and economic opportunity, are integrally connected to environmental concerns". Accordingly, these scholars observed that this emphasis upon greater equity as a desirable and just social goal is closely related to a recognition that unless society endeavors for a greater level of social and economic equity, both within and between nations, the long term objective of a more sustainable world is unlikely to be tenable. They argued that the basis for this observation is that "sustainability implies a more careful use of scare resources and, in all probability, a change to the high-consumption lifestyles experienced by the affluent and aspired to by others".

Attainment of attitudinal change appears to be a Herculean task. These scholars further expressed their reservation on attaining attitudinal change this way:

> It will not be easy to achieve these changes in behaviour, not least because this demands acting against short term self-interest in favour of unborn generations and 'unseen others' who may live on the other side of the globe. The altruism demanded here will be difficult to secure and will probability be impossible if there is not some measure of perceived equality in terms of sharing common futures and fates.

There has been enormous literature on the issue of sustainability in the past few years and this may have contributed to the divergent views in the conceptualization of the term. Accordingly, Agyeman, Bullard and Evans (2005) observed that the swell in material in recent years dealing with the concepts of sustainability and its action-oriented alternative sustainable development has led to opposing and differing views over what the terms essentially mean and what is the most attractive means of achieving the goal.

In the view of Redclift (1987), sustainability as an idea can be traced back to the 'limits to growth' debates of the 1970s and the 1972 UN Stockholm Conference. Whatever be the divergence in its conceptualization, the single most frequently quoted definition of sustainable development comes from the World Commission on Environmental and Development (WCED) (1987) who argued that 'sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, (1987).

V. Poverty, Environmental Degradation and Sustainable Development: A Discourse

Reasonable attempt at a discourse on the relationship between poverty, environmental degradation and sustainable development should begin by addressing the following questions: why has the debate continued? When will the debate end?, and how will the debate end?

The reasons why the debate has continued are not far-fetched. One of the major reasons why the debate has continued to rage on is the fact that the issues of poverty and environmental degradation are critical social problems of the 21st century, affecting both the rich and the poor all over the world. Also, apart from being at the centre of academic fora – conferences, seminars, workshops, symposia, etc – they are at the front-burner of national and international development policies and programmes. Again, the seemingly divergent views and lack of consensus regarding the role of both the rich and the poor countries – the so-called North-South dichotomy – in environmental degradation, will, not only perpetuate the debate, but also militate against forging formidable remedial strategies.

On the other hand, the questions of when and how the debate will end depend on the sensitivity of both sides of the divide to their respective roles on environmental degradation and admittance of joint responsibility to 'right' the 'wrong' meted on the environment by humankind. Consequently, the poverty-environmental degradation-sustainable development debate will come to an end when the negative factors that predispose them are dismantled. Any attempt at redressing the negative factors that does not take into account the part played by the rich and the poor, will in fact, lead to distortions in policies and programmes toward sustainable development.

The rich and the poor alike, exhibit diverse traits of poverty behaviour – latent and manifest – which invariably affects the environment adversely. The view of the authors is that the trajectory between poverty and environmental degradation is glaring but has not been rigorously examined from the root to unravel the multifaceted dimensions of the causal factors. Indeed, a holistic analysis of the causal issues involved in poverty and environmental degradation will bring to the fore variables and the intervening factors that militate against sustainable development.

Dealing with the problems of poverty and environmental degradation and sustainability would have yielded better results if the qualitative arguments of

the North and the South are substantiated with quantitative data on their relative roles in unsustainable utilization of environmental resources. Thus, absence of hard-facts and figures – juxtaposing the respective activities of the rich and the poor in degrading the environment – has impeded availability of data to construct an accurate index of environmental degradation. When available, such data would not only put an end to the North-South dichotomy, but will also be a benchmark for policies and programmes on sustainable development.

In criticizing the Trump Index that attributes environmental degradation to the activities of the poor on renewable and non-renewable environmental resources, Satterthwaite (online) observed thus:

> If data were available to construct an accurate Trump index, it would greatly reinforce the point that it is the high consumption lifestyles of most high income and many middle income groups and the production systems that serve (and stimulate) their demands that threatens ecological sustainability. It is not each person's level of resource use and waste generation that defines their contribution to ecological unsustainability but the level of use of particular resources and the level of generation of particular wastes…For instance, for food consumption, it is not so much the quantity of food eaten that needs to be considered but the ecological costs of producing and delivering it – including the amount of land and the quantity of energy and ecologically damaging chemicals used to do so. The lentils grown and eaten by low-income farmers in India or the maize grown by an urban household in Africa have a tiny impact compared to beef from feedlot raised cattle. For resource use in general, an accurate index of contributions to ecological unsustainability would need to measure the extent to which each person's consumption was products from eco-systems that were being degraded or threatened by over-exploitation or products whose fabrication had serious ecological implications….

The observation above is in consonant with the view of the authors of this paper. Even within particular societies, the high consumption of the rich coupled with enormous generation of ecologically debilitating wastes by the same rich class cannot in any way be compared with the meager and recyclable wastes generated by the poor. For instance, the gas flaring and oil spillage in the Niger Delta region of Nigeria that have wrecked untold havoc on land, water and air, were as a result of the activities of the rich Nigerians and their multinational corporations' counterparts.

The poor whose means of livelihood were the land and water that are now hugely degraded by the rich are poorer, having no other means to sustain them and their households. In fact, the restive activities and militancy of the youth in the Niger Delta area were part of their resistance to this deprivation and marginalization by the rich (Nwagbara, 2007; Nwagbara, 2008).

VI. Conclusion

Ensuring sustainable utilization of environmental resources calls for a holistic approach in tackling the problem of poverty in such a way that avoidable damages to the environment could be averted. Indeed, no society can address the social phenomenon of sustainable development in isolation of the twin problems of poverty and environmental degradation. Sustainable development implies the utilization of environmental resources by the present generation of human beings in such a way and manner that the future generation of the human species will come and meet such resources in better qualities and quantities than their predecessors.

In a world where more than half of the population lives below poverty line, and where the consumption propensity of the wealthy few is on the increase, the problem of environmental degradation will continue to be on the increase. Appropriate legislations and political will to implement them will salvage the world from human side of environmental problems and guarantee sustainability. Since development is about people – present and future generations – the concern about sustainable development should take into cognizance critical factors that influence its attainment. Twin factors of poverty and environmental degradation are paramount in that regard. Government and non-governmental organizations across the world should hire the services of experts to construct appropriate index for measuring the part played by the rich and the poor on environmental degradation.

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