

Resource Utilization and Environmental Sustainability in Nigeria

Temitope Peter Ola¹

Abstract: This paper examines the issues of resources utilisation and how that affects the environmental sustainability profile of Nigeria. The paper notes that Nigeria has a substantial amount of human and material resources while the way and manner the resources are managed influences environmental sustainability within the nation and at the world at large. It is observed that despite numerous policy measures human and material resources are continuously wasted in Nigeria even as the nation continues on a downward trend of poverty. The paper concludes that something drastic needs to be done about how Nigeria manages its resources if sustainability must be attained.

Keywords: National Resources; Waste; Environmental Sustainability

Introduction: Protocols and Laws for Sustainable Development

Human civilization is intricately linked to availability of resources. National progress depends on effective utilization of the resources available in the environment. Being humankind's most resourceful heritage the environment and its sustainability is by now a universal concern since the continuous ability of the earth to sustain itself is a major determinant of humankind continuous existence. Meanwhile, the earth has been identified to have limited resources which must be sustainably utilised for posterity. It is in acknowledgement of the fact that Nigeria is a signatory to numerous international protocols on sustainable development.

For instance the country is a party to the Rio Declaration on Environment and Development. Above and beyond international environmental policy agreements the political, economic, and social pillars for a sustainable environment are ingrained

¹ Lecturer, PhD, Bowen University, Nigeria, Address: P.M.B. 284 Iwo, Osun State, Nigeria, Tel.: +2348060087183, Corresponding author: olatemitope33@gmail.com.

in the Nigeria's 1999 Constitution (as amended). Nigeria has also put a number of environmental sustainability policies in place from the Rio Conference of 1992 through Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs). The abundant resources available to Nigeria should ordinarily aid the fulfillment of the nation's desire for sustainable development. But, this has not been the case. However, literature is yet to explicate the nexus between Nigeria's constitutional provisions for resource allocation, resource utilization profile and the development problems which the nation faces. It is this problem that this paper seeks to explore.

Resource Utilization: Nigeria's Potential and Challenges

A resource is any factor which can be used to satisfy human wants (any source of raw materials). This leads to trade-off. A resource can be viewed in terms of material e.g. raw materials, land or in abstract terms e.g. Human Knowledge, attributes of labours. Resources generally can be described as attributes attach to things. In general, a resource depends on the importance attached to it. Resources are therefore man-made. They are created because someone wants something, a goal and hence means of achieving the goal. If humankind does not make use of something, that thing is not a resource. A resource is therefore employed to meet certain defined objectives.

For instance, the attribute of labour is because someone wants to hire it. The attribute of land also is because it can be used for certain purposes and someone is willing to use it or take advantage of its fertility, topography, accessibility, scenery etc. The value of resource hence depends on the context in which humankind takes it. For example, it is the context of forest estate, inland water fisheries, lakes, oceans, mineral resources in the country that really matters. The context in which resources are taken is also influenced by social, economic, and cultural backgrounds as well as technological know-how. Therefore, nothing is independent and nothing may be regarded as unmanageable in a vacuum. The concept of what constitute a resource therefore varies in time and space due to technological advancement and human wants. For example, the use of sawdust as cooking fuel was not appreciated in some part of Nigeria until the scarcity of the conventional sources such as kerosene and cooking gas sequel to the regular industrial actions by the Petroleum and Natural Gas Workers of the early 2000. Thus, resources management is vital to national success.

Economics is one of the parameters used to determine the success of a management policy or procedure when economic is introduced to resource management; it requires that maximum benefits be derived from the resource. Resource management is however a complex issue because of numerous political, economic, sociocultural factors surrounding their ownership and use. There are basically two types of natural resources:

1. Biological resources;
2. Mineral or non-biological resources.

The biological resources e.g. forest, fishes wildlife are called renewable because they are capable of regeneration. Mineral resources e.g. gold, tin, petroleum, on the other hand, are non-renewable resources because they are not capable of regeneration except after long geological periods. Strictly speaking, both types of resources are exhaustible. The major difference being that while biological resources are capable of replacing themselves as steady flow of them are consumed mineral resources represent fixed stock whose inventory can be diminished over time.

Without paying the required due attention to the issue of resource management, from the moment of Nigeria's independence, attentions focused on the subject of natural resources such as timber, fishes, petroleum, etc. The continuous availability of these resources is no doubt important to Nigeria as they constitute the basis of wealth and are indicators of the developmental potentials of the nation. However, the unusually high rate of natural resources exploitation and misuse is gradually resulting in irreversible disequilibrium of the ecosystem and environment in Nigeria. This has begun to retard economic development and adversely affecting the survival of people in many parts of the country.

Nigeria has been identified to be endowed with vast human and material resources that can guarantee sustainable economic growth and development. It has large reserves of solid minerals including bitumen, topaz, lignite, coal, tin, columbite, iron ore, gypsum, barite and talc. The proven reserves of crude petroleum are well over 37 billion barrels, while reserves of natural gas stand at over 187trillion standard cubic feet (NPC, 2009). Nigeria relies heavily on the exploration of the natural resources to fuel its economy. Past and current production and consumption patterns have underpinned substantial growth in national income. But size does not necessarily makes for quality. Moreover, the impressive resources only hide depressive problems as the prevailing human and material resources waste in the

country constitutes major hindrances to the realization of an environment which supports the attainment of a level of development that meets the needs of the current generation without jeopardizing the ability of future generations to meet theirs.

Meanwhile, for many people who live within the territory of Nigeria the major problem is simply that of accessibility to the resources. As a matter of fact, the problem of accessibility to basic necessities of life is a major factor responsible for low life expectancy of less than 50 years in Nigeria, over the years. For instance, in year 2017 only 57 percent of Nigerians had access to safe drinking water, and a lower percentage had access to adequate sanitation. Thus, though Nigeria has enormous human and material resources its development strives remain at the level of potential. There is therefore the need for efficient management of natural resources to maintain their continued availability and for improvement in the living standard of Nigerians.

Resource waste in Nigeria has indeed come in diverse dimensions. There is the waste of human resources which in the first instance is due to low productivity which itself is the consequent of the flux state of educational policy. Moreover, Nigeria has one of the highest out-of-school children in the world. Those who eventually graduate from the nation's tertiary institutions go into a depressed economy which offers little remedy for unemployment. In another instance, there is the emergence of the culture of much money – through the availability of oil and drug money – for little or no-work done is another issue. Thus, millions of able-body Nigerian youths roam the streets everyday busily doing nothing other than waiting for the *maggers* (dupes) to pay. There is also the existence of money sharing syndrome in the civil service of Nigeria. A visit to the headquarters of any of the 774 local government and council areas of Nigeria would reveal the availability of a large amount of redundant Nigerians, seating about, waiting for the next monthly revenue sharing and release of pay cheque from Abuja.

Furthermore, the nation's approach to the exploration of the available natural resources leaves its natural environment in a sorry state. Environmental problems associated with the extraction and processing of many materials and natural resources are becoming obvious in Nigeria. Therefore, concerns about the sustainability of these patterns are mounting, particularly regarding the implications related to resource use and over-use. Huge gas flaring has been a regular feature of the Nigerian oil industry since production began in 1958. The

resultant wasteful gas flaring has consistently ranked Nigeria among the world's largest source of carbon emissions, a major factor in global warming.

The result is diverse hazards to life and environment including pollution, fire disasters and health risks, among others which are compounded by gas pipeline vandalism associated with militant agitations for resource control in the oil producing Niger Delta. The problem is compounded by the prevailing socio-economic and political relations in the country to the extent that the frontiers of hunger are fast encircling the Nigerian people such that '... daily bread is no longer daily in Nigeria' (Iremiren, 1992). Despite the claimed resource abundance and potential of Nigeria food is in short supply and garbage bins are the menu tables for hundreds of thousands of Nigerians. In other words, most of the measures might be scientifically sound but given the environment they are unmitigated failures. That means that due to the failure to take cognizance of the political environment within which the policies are to operate Nigeria can be described as a nation of grandiose plans, little results.

The way that socioeconomic relations within the country proceeds has being identified to fuel high rate of poverty, inadequate housing, rising crime waves, unemployment, improper waste management and high rate of mortality. Thus, as the nation's approach to resource exploration leaves its natural environment in sorry state major parts of Nigeria's human and material resources remain underutilized and underdeveloped. Thus, there is the need there to explore practicable means of resource exploitation in a way that guarantee a sustainable environment.

Nigeria's Constitution and the Principles of Sustainable Development

Development is a dynamic process in which there is no end point. But the necessary pillars for environmentally friendly development are already recognised in the Nigeria's 1999 Constitution (as amended). As the policy and legal basis of environmental sustainability, the Constitution, in particular, states that the Federal Republic of Nigeria is 'a State based on the principles of democracy and social justice'. With particular emphasis on the environmental pillar of sustainable development, Article 20 (sub-section 2), of the Constitution states that, 'the State shall protect and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria'.

The Constitution prescribes a capitalist economy for Nigeria. Chapter II of the Constitution, entitled: 'Fundamental Objectives and Directive Principle of State Policy', provides in section 16 (d) that without prejudice to the right of any person to participate in areas of the economy within the major sector of the economy, protect the right of every citizen to engage in any economic activities outside the major sectors of the economy (*Constitution of Federal Republic of Nigeria 1999(as amended)*). Therefore, the Nigerian Constitution promises justice encompassing the social, economic, political, equality of status, opportunity and the dignity of the individual to every person living within its territory.

In Article 1 (sub-section 2), the same Constitution states that the State shall (a) harness the resources of the nation and promote national prosperity and an efficient, a dynamic and self-reliant economy; (b) control the national economy in such manner as to secure the maximum welfare, freedom and happiness of every citizen on the basis of social justice and equality of status and opportunity; (c) without prejudice to its right to operate or participate in areas of the economy, other than the major sectors of the economy, manage and operate the major sectors of the economy; and (d) without prejudice to the right of any person to participate in areas of the economy within the major sector of the economy, protect the right of every citizen to engage in any economic activities outside the major sectors of the economy. To do this effectively the Constitution provides that the State shall direct its policy towards ensuring: (a) the promotion of a planned and balanced economic development; (b) that the material resources of the nation are harnessed and distributed as best as possible to serve the common good; (c) that the economic system is not operated in such a manner as to permit the concentration of wealth or the means of production and exchange in the hands of few individuals or of a group; and (d) that suitable and adequate shelter, suitable and adequate food, reasonable national minimum living wage, old age care and pensions, and unemployment, sick benefits and welfare of the disabled are provided for all citizens.

Article 17 (sub-section 2) in particular emphasizes a "*State social order is founded on ideals of Freedom, Equality and Justice*" in which (a) every citizen shall have equality of rights, obligations and opportunities before the law; (b) the sanctity of the human person shall be recognized and human dignity shall be maintained and enhanced; (c) governmental actions shall be humane; (d) exploitation of human or natural resources in any form whatsoever for reasons, other than the good of the community, shall be prevented; and (e) the independence, impartiality and integrity

of courts of law, and easy accessibility thereto shall be secured and maintained. With particular emphasis on the environmental pillar of sustainable development Article 20 (sub-section 2), of the Constitution states that ‘the State shall protect and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria’. The question then arises, why does the Nigerian environment still suffer despite these legal provisions?

Nigerian Politics and Law: Complementary or Contradictory?

The claim that all humans are subject to and play politics in different forms and under different guises, thus are all political animals has not been successfully refuted. On the one hand, politics, according to famous authorities is ‘the authoritative allocation of values’ or the process of determining ‘who gets what, when, how in a society’ (Lasswell, 1958). In other words, politics is the mechanism for determining how a human society is ordered and governed, and so, it is the singular activity that concerns everyone whether they are aware or ignorant of it. On the other hand, politics as an activity operates within an environment. That environment is the laws, agreed codes of conduct and rules of behaviour which are spelt out in a constitution and a society’s body of rules, processes and procedures.

Thus, various policies have been legalized like:

1. Farm Settlement Scheme in the Former Western and Eastern Regions of Nigeria (1956);
2. The National Accelerated Food Production Program (1973);
3. The Procurement and Distribution of Fertilizer Project (1973);
4. The Agricultural Development Project (ADP) (1973);
5. Integrated Rural Development Authority (1975);
6. Subsidies on Fertilizers, Seeds, Agro-chemicals and Tractor Hire Services (1976);
7. National Seed Service (1976);
8. Operation Feed the Nation (1976-1979);
9. Agricultural Credit Guarantee Scheme Fund (1976);
10. River Basin Authorities (1977);

11. The Rural Banking Program (1977);
12. The Agricultural and Co-operative Bank (1978);
13. Opticom Program by the Governments of Ondo, Ogun, Oyo, Lagos, and Bendel States (1979);
14. Green Revolution by the Shagari Administration (1980-1983);
15. The Nigerian Agricultural Insurance Scheme (1987);
16. The National Directorate of Employment (NDE) (1986);
17. Directorate for Food, Roads, and Rural Infrastructure (DFRI) (1986);
18. Peoples Bank (1989);
19. The National Agricultural Land Development Agency (NALDA) (1991); and
20. The National Fadama Development Project.

Others are three full fledged Universities of Agriculture in Abeokuta, Makurdi and Umudike. There is also the existence of international research institutes – International Institute for Tropical Agriculture (IITA) at Ibadan; International Livestock Research Institute (ILRI) also at Ibadan; and International Crops Research Institute for Semi-arid Tropics (ICRISAT) in Kano.

All these are aimed to make Nigeria food sufficient but as usual some of the policies are unworkable, some are still-born, others are scrapped before their effects could be materialized while majority are badly implemented. In fact, the existence of these policies and institutions in Nigeria brings too much food for thought but very little for the table. But, we do not need a philosopher to tell us that without food there is no life. In fact, no nation can be truly great if it cannot feed its populace. And no system or political ideology can sustain the loyalty of underfed and impoverished citizens – the collapse of the Union of Soviet Socialist Republics (USSR) is a vivid example.

Be that as it may, it is those who have and wield political power, control the levers of government, who are also responsible for making the laws by which the nation-state is governed. Thus, there exists a permanent fusion and a symbiotic relationship between politics on the one hand and law on the other. In practice therefore, there exists interdependence since politics determines laws and laws conversely dictate and regulate political activities. That is, politics is played within the ambience of

law, hence the dictum ‘rule of law’ which prescribes that government is not above the law and its relations with the governed are subject to the dictates of law.

Unfortunately scholars have attempted to understand Nigeria’s societal progress without utilizing the eclectic knowledge of politics and law therefore doing a lot of damage to the theory and practice of development. The result is that ignorance of the law is prevalent among practicing politicians (because most are not legal professionals) in the same way that legal professionals are often ignorant about the theory and praxis of politics, the very environment wherein law operates.

Nigeria’s Environmental Sustainability Profile

The foregoing notwithstanding, in view of the provisions of the Constitution of the Federal Republic of Nigeria there is the need to enquire concerning the effect of the provisions as well as the sustainability of the Nigerian environment. The Brundtland Commission Report entitled *Our Common Future* (1987), defined sustainable development as ‘development, which meets the needs of the present without compromising the ability of future generations to meet their own needs’. Since the United Nations convened the 1992 Conference on Environment and Development (UNCED), otherwise called the Earth Summit, in Rio de Janeiro, Brazil, with the aid of the United Nations Millennium Declaration, United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biological Diversity (UNCBD), United Nations Convention to Combat Desertification in those Countries Experiencing Drought and/or Desertification, particularly in Africa (UNCCD), non-binding targets of the Forestry Principles, and the Sustainable Development Goals there have been extensive efforts to operationalise sustainable development by governments and other stakeholders in Nigeria.

The country’s implementation of Agenda 21 (the global environmental Action Plan adopted at the Earth Summit in 1992) towards the attainment of a poverty-reducing, socially-equitable and environmentally sustainable national development, with emphasis on national activities, programmes and initiatives have yet to address the challenges of climate change and development, biodiversity, the land policy initiative, development of strategic agricultural commodity, food security – bridging the gap through mobilization of internal resources, technology transfer, organizational restructuring etc.

To promote environmental sustainability, the National Environment Policy of 1999 is a key policy document that stipulates the principles for sustainable development. Policies and programmes under broad categories of the environmental pillar are related to forestry, biodiversity, pollution control, land degradation, water management, climate change, marine and coastal environment, clean energy, and environmental crime.

The national culture remains a key challenge to sustainable environmental development. Poverty and unemployment remain critical challenges to its efforts to enhancing the quality of life of the people. Nigeria's environment is currently under increasing threat from natural and human-induced disasters such as drought, floods and erosion. Population increase is exerting pressure on the environment. Rapid deforestation, resulting from unsustainable uses of forest resources for human survival (e.g. fuel wood and energy, housing etc.) is a major contributing factor to land degradation. Also, indiscriminate and inappropriate mining activities in many parts of Nigeria have left some areas of the country bare and unproductive. Unfortunately, it is often a fool's fantasy to look to Nigerian politicians – who are embedded with corporate interests and encumbered by all kinds of agenda – to push ideas that offer deep social benefits.

The critical economic issues concern the need to foster sustainable rapid economic growth that will cater for the needs of its large population and the imperative for proper integration of its domestic economy into the world economy in the face of increasing globalization. Overcoming the challenges of poverty, fighting corruption, meeting the basic needs of the people, inadequate and inefficient infrastructure and development of human resources and capital for sustainable growth and equity are critical social challenges.

The Federal Ministry of Environment is pursuing its mandate of:

- i. Securing a quality environment conducive for good health and wellbeing of fauna and flora.
- ii. Promoting sustainable use of natural resources.
- iii. Restoring and maintaining the ecosystem, ecological process and preserving biodiversity.
- iv. Raising public awareness and promoting understanding of linkages of the environment.

Furthermore, some specific Agencies have been created to provide more focused attention to some specific environmental problems. They include the National Oil Spill Detection and Response Agency (NOSDRA) and National Environmental Standards and Regulations Enforcement Agency (NESREA), which were created respectively in 2006 and 2007. NOSDRA has the mandate to implement the national oil spill contingency plan. NESREA has responsibility to enforce all environmental laws, guidelines, policies, standards and regulations in Nigeria, as well as enforce compliance with the provisions of all international agreements, protocols, conventions and treaties on the environment to which Nigeria is a signatory. From 2007 to 2012, NESREA has developed twenty four (24) Environmental Regulations which have been gazette and are in various stages of operationalisation. These Regulations have key provisions for environmental control, clean-up and remediation. Other institutions include the Forestry Research Institute of Nigeria (FRIN), National Parks and Environmental Health Officers Registration Council of Nigeria (EHORECON). FRIN is mandated to conduct research into all aspects of Forestry, Wildlife Management, Agro-forestry and Forest Products Utilization; as well as train technical and sub-technical personnel for the forestry and agro allied services in the country through its colleges.

Towards addressing climate change, Nigeria has put in place institutional structures and policies for national implementation of the UNFCCC, the Kyoto Protocol and any other instruments put in place. The government is also pursuing the implementation of environmental protection and sustainable development of the Niger Delta.

Ensuring Environmental Sustainability

Environmental sustainability requires maintaining natural capital as both a provider of economic inputs called ‘sources’ and an absorber called ‘sinks’ of economic outputs called ‘wastes’. At the ‘source site’, harvest rates of resources must be kept within regeneration rates. At the ‘sink site’, waste emissions from industrial production must be controlled so as to not exceed the capacity of the environment to assimilate them without impairment (Goodland, 1995). It has become commonplace for ‘sustainable development’ or ‘sustainability’ to be defined strictly in terms of ‘environmental sustainability’. This misconception holds that what is wrong with the contemporary pattern of international development is simply that it is destroying the environment. This view is superficial in the extreme

for it ignores the market forces and social inequalities that are driving environmental degradation. Goodland (1995) has identified the overlap among economic, social, and environmental ‘sustainability’, particularly the strong linkage between ‘economic sustainability’ and ‘environmental sustainability’.

It is fitting that unprecedented attention has been given to ‘environmental sustainability’ in recent years, given the fact that development theory has focused on matters of economic underdevelopment and poverty alleviation in developing countries, and was late in responding to unprecedented threats to the global environment. Nonetheless, it would be mistaken to conflate the doctrine of ‘sustainable development’ into one of achieving ‘environmental sustainability’. The protection of natural systems represents not an overarching panacea for attaining economic vitality and social justice, but a necessary component of an entire system for accomplishing economic, social *and* environmental ‘sustainability’, in which economic and social reforms is as important.

The resources of Nigeria should be developed to the fullest extent possible with available means as a whole by an efficient and rational use of the natural resources. The issue of rational utilization and sustainable development is now very relevant as Nigeria’s population grows very fast while the resources available to the needs of citizens is decreasing at increasing rate. Nigeria bears the primary moral responsibility for the conservation and rational development of its own natural resources and to ensure that the natural resources are managed and exploited in such a way that the continued and perpetual derivation of benefits from them are guaranteed. Consequently, two interpretations of Sustainable Economic development are put forward:

- a. That concerned with sustainable economics, ecological and social development;
- b. Environmentally sustainable development i.e. optimum resources use and environmental management over time.

The concept of sustained development applies, to a resource which is to be used for, the production of all desired products in perpetuity. For example, the management of the country’s marine resources is to ensure the production of fishes and other marine life or the guarantee of the exploration of the country’s mineral resources. Human race in the quest for economic development and improvement of their condition of living must come to terms with the realities of resources limitation and the carrying capacity of the ecosystem and must take account of the needs for future generations. The first interpretation which is wider in scope and

highly normative view of Sustainable Development (SD) was endorsed by the World Commission on Environment and Development (UNCED) (1987). It defined SD as ‘development that meets the needs of the present without compromising the ability of future generation to meet their own needs’. This is the view adopted by the Rio declaration of 1992 by the United Nation Conference on Environment Development (UNCED) and World Conservation strategy.

Recommendations and Concluding Remarks

Unless Nigeria back up its good intentioned policy process with good implementation commitments the efforts of all policy makers, policy analysts would always be futile. To ensure effective utilization of resources and guarantee sustainable environment in Nigeria the nation should develop 1. a political system that secures effective citizen participation, 2. an economic system that is able to generate surpluses and technical knowledge on a self-reliant basis, 3. a social system that provides for solutions for tensions arising from disharmonious development, 4. a production system that respects the obligation to preserve the ecological base for development, 5. a technological system that can search continuously for new solutions, 6. an international system that fosters sustainable patterns of trade and finance, and an administrative system that is flexible and has the capacity for self-correction (WCED, 1987).

The basic objective of resource management is to optimize yield from a particular resource by exerting governmental control on the resource process. The control may result in regional development or realization of the maximum use of a potential resource. For example, the Kainji Lake Hydro-electric Project in which electricity is generated to many parts of the country and other neighbouring countries. In addition to electricity, the lake was to enhance the development of other resources such as fisheries, agriculture and Wildlife — at KLNP.

The essence of resource management should be to minimize the impact of economic development upon people and the ecosystem, for example, the screening of industrial area with tree planting or construction of sewage treatment scheme. The realization of import of inter-relationship between biota and their surroundings leads to the concept of environmental management. Since the biological environment provides the resources, the resource process must therefore be rationally managed to ensure sustained productivity. Moreover, development of one resource should not be inimical or contradictory to the operation of others

which share the same space and identical ecosystem. Environment should therefore be utilised in such a way as to be:

- i. useful as a provider of materials;
- ii. beautiful as provider of recreation, wildlife and landscape;
- iii. life supporting as a provider of space, food and other biological systems.

The adoption of the concept of environmental management by Nigeria is until now more of lip-service. With the present awareness of environmental quality, various governmental and non-governmental agencies are being established to combat and educate the populace on the need for good quality of the environment.

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