

NATURALISTIC/MATERIALISTIC APPROACH AND ECOLOGICAL DEGRADATION IN AFRICA: TOWARDS AN IGWEBUIKE THEOLOGICAL PERSPECTIVE

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Abstract

Over the years the ecology of many African countries has been misused, abused, depleted, degraded or utterly destroyed by man's ignoble activities. These unwholesome activities include air pollution, dumping refuse in water channels, building on water channels and deforestation with attendant consequences to gully erosion, farmland erosion, submerging of houses and farmlands, aquatic and animal destruction among others. The consequences from ecological crises are better imagined than felt in the real sense of the world. This has become endemic as it has the potential effects of affecting present and future generations of humans and other living species in ways we cannot even predict. It is in the light of the above that a concensious look at ecological destruction in Africa and Nigeria in particular is needed, with a view to providing rapid and adequate response that is theological and impactful in order to curb the menace for the socio-economic development of the continent. It is in this regard that Igwebuike, as a theological reality, is employed to emphasize the inescapable presence of the divine element in the human reality, and the interrelationships of religion and nature, particularly in the light of environmental concerns. The Igwebuike theological theoretical framework and the Igwebuike wholistic method of investigation are, therefore, employed.

Keywords: Naturalistic, Kanu Ikechukwu Anthony, Materialistic, Ecological, Igwebuike Theology, Africa, Environment

Introduction

Ecological degradation constitutes one of the key challenges to humanity on the African continent in the 21st century. Evidently in many African countries today, there is a growing concern on ecological degradation among other disturbing issues such as kidnapping, ethno religious conflicts, insurgency, corruption in polity, poverty, disease, hunger, economic depression which have abetted and increased to the quantum of nauseating problems beleaguering the continent. It is generally believed that both Naturalists and materialists understanding of the environment negatively contribute to ecological degradation. The philosophical

underpinning of the naturalists and the materialists does not accept the notion that the universe was created by a Supernatural being but rather that “the universe was simply there.” The main thought of philosophy underscores the ideology that all phenomena can be explained only in terms of natural causes. Proponents of naturalism deny the existence of the supernatural or metaphysical laws. Naturalism in effect denies the existence of a transcendent cause of the world and therefore tends to usurp the sovereignty of God by replacing it with man’s omnipotence and omniscience.

Over the years the ecology of many African countries has been misused, abused, depleted, degraded or utterly destroyed by man’s ignoble activities. These unwholesome activities include air pollution, dumping refuse in water channels, building on water channels and deforestation with attendant consequences to gully erosion, farmland erosion, submerging of houses and farmlands, aquatic and animal destruction among others. The consequences from ecological crises are better imagined than felt in the real sense of the world. This has become endemic as it has the potential effects of affecting present and future generations of humans and other living species in ways we cannot even predict. Angbashim observed this when he asserted; “ecological crisis has threatened our common future and the very basis of life on earth” (111). It is in the light of the above that a concensious look at ecological destruction in Africa and Nigeria in particular is needed, with a view to providing rapid and adequate response that is theological and impactful in order to curb the menace for the socio-economic development of the continent.

Definition of terms

The Term Ecology is derived from two Greek words οἶκος, meaning "house" or living relations, and 'λογία', meaning "study of"; which literally translates to the “study of environment.” It is the scientific analysis and study of the distributions, abundance and relations of organisms and their interactions with their environment. Ecology is a science that deals with the relationship between groups of living things and their environments. Environmental degradation connotes the deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems; habitat destruction; the extinction of wildlife; and pollution. It is defined as any change or disturbance to the environment perceived to be deleterious or undesirable (Powell 11-14).

Igwebuik: Towards a Theological Theoretical Framework

As a theological theoretical framework, this piece adopts Igwebuike theological framework for the resolution of emerging environmental concerns. The word *Igwebuike* is an Igbo-African word, and reflects the modality of being in African ontology (Kanu, 2014&2015). It is taken from the Igbo language, which is a composite word made up of three dimensions. Therefore, it can be employed as a word or used as a sentence: as a word, it is written as *Igwebuike*, and as a sentence, it is written as, *Igwe bu ike*, with the component words enjoying some independence in terms of space. The three words involved: *Igwe* is a noun which means number or population, usually a huge number or population (Kanu, 2017 a&b). *Bu* is a verb, which means *is*. *Ike* is another verb, which means *strength* or *power*. Thus, put together, it means 'number is strength' or 'number is power', that is, when human beings come together in solidarity and complementarity, they are powerful or can constitute an insurmountable force (Kanu, 2016 a&b). Its English equivalent is 'complementarity' or 'harmony' (Kanu, 2017c&d). *Igwebuike*, therefore, understands reality, which includes the environment as complementary. Thus, to deal violence to the environment is to do violence to oneself, because the environment is part of the complete whole, which the human person is unavoidably part of.

Igwebuike, as a theological reality, emphasizes the inescapable presence of the divine element in the human reality, and the interrelationships of religion and nature, particularly in the light of environmental concerns. Earlier efforts in this direction can be seen in the move of Bartholomew 1, the Ecumenical Patriarch of the Eastern Orthodox Church, in 1995 when he tried to bring scientists and religious leaders together to consider addressing environmental issues. This was organized in three symposia. In 1996, the Harvard Centre for the Study of World Religions began series of ten conferences on religion and ecology. The culminating conference was held in New York City from October 20-21, 1998. This led to the putting together of eco-theological theories that environmentally correct religious practice may be realised. In 2010, the Spiritan International School of Theology dedicated an entire volume of her Journal to a theological study of the environment. Besides these, there are many religious environmental projects going on all over the world (Kanu 2017&2018).

It begins with the understanding that there is a nexus between human religious/spiritual worldview and the degradation of nature. It emerged as a result of the increasing awareness of the environmental crisis wrecking the world, bringing about profound religious reflections on the relationship between the human person and the earth. Moving beyond the purely naturalistic and

materialistic perspectives, Igwebuike theology in relation to the environment avers that addressing environmental issues requires a belief system large enough to conceptualize on a cosmic scale. It believes that with the vastness and completeness of divinity, religions operate in this scale.

Nature essentially belongs to God as his creation and the expression of his power and love. And God gave the earth to humanity with a corresponding responsibility. While humanity needs the earth's resources to survive, humanity has an imperative to tend and care for creation. Humanity's responsibility is to protect the earth not to over-exploit it. Creation is not to be seen as a property of anybody which can be ruled at will or to be wantonly destroyed. Creation is a wonderful gift that God has given to humanity to care for it and use it for the benefit of all with great respect and gratitude.

Materialistic/Naturalistic Philosophical Perspectives

One dominant philosophy that perpetuates the destruction of the ecology on the African continent is the naturalists and the materialistic worldview of creation. This view is premised on the atheistic, secular and humanist worldview. Naturalism is a philosophical theory asserting that "everything in the world and life is based on natural causes and laws as opposed to spiritual or supernatural laws (Oxford Dictionary, 781). The philosophy is shared by Butler who posited that "the physical universe is all that there is (37). Exponents of this philosophy argue that there is nothing like the spiritual within man and that there is nothing such as the soul which is different from all nature. Naturalists submit that "Nature is all." While writing on the naturalist philosophy of the universe, Musa vividly pontificated that to the naturalists, "the universe and all that is in it is regarded as a natural entity devoid of a super nature (16). Naturalists aver that natural laws are the rule that govern the structure and behaviour of the natural universe and that changing the universe at every stage is a product of natural laws (Catholic Encyclopedia, 38). Notable naturalists include Charles Darwin, Steve Irwin, David Attenborough, Rousseau, Pestalozzi, and Montessori among others.

Materialism on the hand is a system of thought holding that all phenomena can be explained in terms of natural causes and laws, thus denying the supernatural or metaphysical laws. Materialists believe that the only thing that exists is matter; if anything else such as mental events exists then it is reduced to matter. It can therefore be observed by the careful analysis that both naturalists and materialists have one thing in common, which is, denying the creative power of

the super natural, transcendent God as the creator of the universe. While some may limit their materialist account of nature itself and admit the existence of a creator of the world, the general tendency of materialism is towards atheism. Thus some naturalists and materialists are atheists. These believe that God is not the creator of the universe and that “nature is simply there” and that the physical world is eternal and uncreated (Geisler, 316). The materialistic view draws its support from the first law of thermodynamics which states that energy can neither be created nor destroyed. The implication here is that if energy is uncreated, then, there is no creator. The second assumption of the materialist view is that energy is unlimited and cannot be destroyed. If energy cannot be destroyed, then it is indestructible, and if it is indestructible, then it will never run out but last for life. Lastly, materialists hold that science and technology can solve all problems including problems emanating from the environment, therefore, technology will fix and or replenish ecological issues that arise.

Drawing from the suppositions above, the naturalists’ metaphysics is rooted in the notion that Ultimate Reality is found only in nature and nothing beyond it. Consequently, the universe is devoid of a super nature (Musa, 16). Materialists hold that because God is not the Creator of the universe, there is no divine imperative on a particular order for the use of the universe and its resources. Rather, usage of the universe and its component parts are to be carried out at the whims and caprices of man. Secondly, all the resources of the earth are deemed to be recycled as they are unlimited as man will not run out of these resources no matter what. This misunderstanding of nature therefore fuels the misuse and abuse of the environment.

Arguments against naturalists

Reacting against the materialist’s/naturalists claim of creation, nature and energy, Ehrenfield (59) posited that “the religion of naturalists and humanists is self-destructive and foolish and yet the more it fails, the more arrogant and preposterous are the claims of its priests.” The universe certainly has a creator, God. This evidence is supported by the Genesis account of creation where the author states “in the beginning God created the heavens and the earth. (Gen 1:1). The writer of Hebrews vividly supports the Genesis account of creation when he states “in these last days he (God) has spoken to us by his Son, whom he appointed heir of all things, and through whom also he made the universe (Heb 1:2) and also that “by faith we understand that the universe was formed at God’s command, so that what is seen was not made out of what was visible (Heb 11:3).

The author of Samuel concurs that the foundations of the earth are the Lord's; on them he has set the world (1Sa 2:8). The Psalmist declares "the heavens are yours, and yours also the earth; you founded the world and all that is in it (Psa 89:11), the world is mine, and all that is in it. (Psa 50:12). Luke the researcher, physician wrote "the God who made the world and everything in it is the Lord of heaven and earth (Act 17:24). So the supposition that the world is uncreated as claimed by the naturalists cannot stand empirical evidence because the universe has a Supernatural Creator.

On the claim of the materialists that energy is unlimited and cannot be destroyed, it is unequivocally refuted that useable energy is not unlimited (Geisler, 318). This fact is captured in the second law of thermodynamics which states that in closed and isolated systems such as the whole material universe, the amount of useable energy is decreasing. Fossil energy include coal, petroleum, natural gas, oil shales, bitumen, tar sands and heavy oils. Firstly, it has to be appreciated that fossil fuels are limited and will not last forever because of man's misuse and abuse on the environment. The fossil fuels will be depleted. Secondly, renewable energy sources that are replenished by nature such as the sun, wind and water, the earth's heat and plants will also run out with time. The ugly fact is that, all the energy sources are destroyed by man's abuse of the ecosystem of depletion of the natural resources, deforestation, illegal mining activities, thus destroying the natural environment.

On the claim by the materialists that the world is eternal, this can only be wishful thinking and at best day dreaming. That the universe itself will be destroyed is revealed by the Creator himself. The author of the universe made this known when he said "Heaven and earth will pass away, but my words will never pass away (Luk 21:33, Mar 13:31, Mat 24:35). Peter the apostle of the Lord Jesus corroborated thus "the present heavens and earth are reserved for fire, being kept for the Day of Judgment and destruction of the ungodly.... The heavens will disappear with a roar; the elements will be destroyed by fire, and the earth and everything done in it will be laid bare (2 Pet. 3:7-10). It then implies that if the earth will not last forever, then everything that resides in the earth.

Materialists and naturalists claim that science and technology can solve all problems including problems emanating from the environment is only but a farce. Science and technology cannot solve all of man's problems. The omniscience of man can never be put at par with God's. Paul cleverly captured

this when he noted that the “wisdom of this world is foolishness in God's sight” (1Co 3:19) and that the foolishness of God is wiser than human wisdom, (1Co 1:25). Naturalists epistemology is rooted on the sense organs which constitute man’s gateway through which knowledge can be gained (Musa, 17). So to the naturalists what the sense organs could not perceive is considered untrue and denied as having been in existence. But not all knowledge can be perceived with the sense organs. For instance, believe and faith in the supernatural happenings of God cannot be rationalized with the sense organs alone.

According to Ehrenfeld, “deep within ourselves we know that our omnipotence is a sham and our knowledge and control of the future is weak and limited, our inventions and discoveries work, and if they work at all, in ways that we do not expect, our planning is meaningless, our systems are running amok- in short that is the humanistic way upon which our societies are grounded for lack of validity (58). Thus, man’s wisdom anchored on experiences, reason, science and technology can at best be encapsulated with faulty ideas which are invariably foolishness to God.

Materialistic inclinations that fuel the destruction of ecology

Richard (63), posits that naturalistic and materialistic misconceptions on ecology propel the exploitation, misuse and abuse of natural resources for economic growth and development. These activities sometimes result in embarrassing negative consequences accompanied by environmental degradation. It is observed that while the exploitation of ecology began on a massive industrial scale in the 19th century with the extraction and processing of raw materials in the mining, steam power, machinery and wood work, it accelerated much higher than it had in pre-industrial era. During the 20th century, the exploitation of natural resources and energy consumption rapidly increased with attendant massive consumption sustained by the extraction of fossil fuels, which consists of oil, coal and gas. Geoffrey added that non-renewable energy sources such as precious metals were also illegally mined by humans for the production of industrial commodities (125-129). Agricultural practices distorted the growth and sustenance of the natural environment by the degradation of forests in terrestrial ecosystem and water pollution in an aquatic ecosystem. With the increase in population on African continent and the resulting economic boom, the demand for the exploitation of natural resources also rose. It is therefore hoped that the wrong depletion of natural resources by the materialists will raise an alarm to ecologists and environmentalists for a quick solution to the problem of depletion

of the continents natural resources.

Why naturalists destroy natural resources

I. Technological advancement.

The rapid development and increase in the sophistication of technology enables natural resources to be extracted effectively and efficiently. While in the past, it took long hours just to cut down a tree with a saw, today with the advent of sawing machines has increased the time for felling trees without leading to deforestation.

II. Overpopulation.

Human population is exponentially increasing day by day. While human population is increasing, natural resources are depleted in an inverse relationship. Humanity's insatiable appetite for consumption is distorting the environment's natural equilibrium. According to the UN, there were 7.6 billion people in 2017. This number is expected to rise to about 10 billion in 2050 and about 11 billion in 2100.

III. Economic activities.

Materialistic demand for natural resources leads to the raping of the earth's resources; felling of trees for timber. Timber extraction was a major source of revenue earner in Nigeria for domestic use such as roofing, furniture, motor vehicle bodies and canoes and export (Akullah, 6). Other usage of natural resources includes mining of solid minerals for jewelry and commodities for human life or for technological advancement. This leads to extraction of resources for the production of commodities necessary for human life. Production industries discharge smoke and chemicals, thus polluting the air water sources. The polluted atmosphere contains carbon monoxide and sulfur dioxide that are eventually absorbed into the atmosphere with chlorofluorocarbons (CFC's) which depletes the ozone layer and emits higher levels of ultraviolet radiation affecting humanity and the environment.

IV. Agricultural practices

These have their fair share in distorting the growth and sustenance of the natural environment by the degradation of forests in a terrestrial ecosystem and water pollution in an aquatic ecosystem. As people move the subsistence method of farming to mechanized farming due to advanced technology and the attendant increase in population, the demand for land for farming increases causing a huge

pressure on land resource.

V. Poverty and ignorance

The demand for fuel wood and charcoal brought about by heightened poverty levels in many African countries led to the destruction of natural resources. Even now, fuel wood is the primary source for cooking and heating among the poorer countries of the world. The ignorance of the people in replacing cut down trees has aggravated the sorry state of the continents natural resources particularly forests and illegal mining of solid minerals.

Ecological Crisis in Africa

Ecological crisis occurs when the environment of a species or a population changes in a way that destabilizes its continued survival. There are many possible causes of such crisis: It may be that the environment quality degrades compared to the species' needs, after a change of abiotic ecological factor, for example, an increase of temperature level or less significant rainfalls can adversely affect and even degrade the environment. It may be that the environment becomes unfavorable for the survival of a species or a population due to an increased pressure of predation. We can add here that; ecological Crisis occur when nature is placed under danger that may result to harm to other living organisms within the environment. Africa as a continent has witnessed ecological crisis that posed serious threat to its existence.

For instance, in Nigeria, the situation in the Niger delta region is quite alarming and dangerous. The region has witnessed the devastation of the eco-system with the discovery of oil and gas. Ikeke narrating the ugly scenario of the Niger Delta States said, "The exploration of oil and gas has caused untold danger to both human lives, property, and the environment of the Niger Delta" (97). The region has witnessed pollution of water, destruction of farm lands, loss of biodiversity, youth restiveness and a hostile social environment.

The encroachment on forest and forest reserves in Nigeria today has precipitated crisis on our environment. One of such crisis on our environment is desertification. In a lecture on 29th January, 2016, in a course on African Christian Theology, Gwamna stated, "it is becoming disheartening to see areas referred to as savannah or thick forest fast disappearing." The desert region in Nigeria is fast expanding and extending daily to all northern states to the middle belt states of Nigeria beyond what it used to be. This has left this region with sharp effects of desertification, soil erosion, gully erosion, rise in temperatures, short periods of

rainfall with attendant crop failure and poor crop yields. Corroborating, Ukpak vividly narrated the effects of environmental crisis in Nigeria especially of the Niger Delta, thus:

The Nigerian ecosystem has been degraded not only by deformation but also by oil spills, gas flaring and sundry activities deriving from oil production, as experienced in the Niger Delta. Oil spillage is a frequent major hazard to the economics of Niger. It often destroys farm crops and farm lands, aquatic life as well as the flora and fauna of the entire region. And as farmers and fishermen in the region depend essentially upon their land and water resources for their sustenance, destruction by oil spillage often spell doom to the people. Apart from their economic mainstay that is badly affected, the health of the inhabitants of the area also tends to plummet because once polluted food is consumed, including drinking water, the consumers contract various diseases that sometimes lead to death. Often, those who suffer loss from these oil production activities are not adequately compensated or not compensated at all. As a result of these dastardly acts by the oil and gas producers and government is the seemingly unending chaos, rift or anarchy, as has been witnessed over the years in the Niger Delta (27-28).

The Niger delta region had experienced unfavorable encroachment of their environments and habitats due to the activities of oil and gas exploitation and exploration. The resultant effects of these are witnessed in environmental degradation, destruction of habitats, decimation of the modes of subsistence of the people and the destruction of farmlands and fishing waters. Lamenting on this horrible act, Olaniyan, averred thus: "oil and gas exploitation has caused deforestation, toxic waste dumping, destruction of soil and water, frequent oil spills and leakages, gas flaring and health problems (15-18).

It is true that Nigeria as a country and Africa as a whole, suffers from serious environmental problems that range from deforestation, soil erosion, desertification as mentioned above, wetland degradation to insect's infestation. Efforts to deal with these environmental crises however, have proven difficult. This has adverse effects on the country and continent especially the rural population who suffer from poor production as a result of unpredictable climate.

Many African countries are adversely affected by air pollution which is caused as a result of human activities like gas flaring, the use of charcoals or wood for fuel, refuse dumped inappropriately, burning of bush e.tc. The endemic nature of

such activities can be alarming as they are responsible for indoor and outdoor pollution, diseases like typhoid, cholera and diarrhea from contaminated air and water and infant mortality rate (Adedeji internet).

The environmental crises and deterioration on Africa as a continent and Nigeria in particular, continues to pose a major problem to development, stability and daily lifestyle of the African continent and the Nigerian nation. The continent is said to be the most vulnerable to the consequences of global warming, this means that, until Africa rises up to her feet with a holistic solution to the problem of environmental crises, the alarming effects of such crises may persist in Africa.

Effects of Ecological degradation in Africa

It is not an overstatement to argue that the continent of Africa is currently experiencing severe effects of environmental challenges which pose serious threat to human existence and other living organisms within the ecosystem. Natural resources are not limitless, and the following negative impact can arise from the wanton destruction and excessive consumption of these resources. These include, deforestation, desertification, extinction of species, forced migration, soil erosion, oil depletion, ozone depletion, greenhouse gas increase, extreme energy, water pollution, natural disasters, metals and solid minerals depletion which all have destructive impact on the ecology of nations. Today, the continent of Africa is challenged by massive deforestation, land degradation, bush fires, air pollution, water pollution and illegal mining. The consequences of exploitation of natural resources have inadvertently caused water erosion, soil erosion, desertification and temperature rise as a result of global warming.

a. Deforestation

Deforestation is the removal of a forest products including trees where the land is thereafter converted to a non-forest use. This happen when forestland has been converted to agricultural or urban use. The removal of trees without sufficient replacement has often resulted in damage to habitat, biodiversity loss and aridity. Lamenting on the effects of deforestation, Emiola pointed out that, "logging is making tropical rainforests to disappear in Africa and ecosystems preserved in these thick forests are being destroyed on a daily basis" (120). The felling down of trees without placement has a long lasting effect on the ecosystem of nations.

b. Soil Erosion and Degradation

Erosion means the removal of the top soil by water or wind. As water flows and wind blows over the land, soil is continually transported from one place to another which causes erosion. Human activities such as digging of the soil and cutting down of plants are also regarded as causes of erosion. Erosion posed serious effects on the environment which includes removal of nutrients needed by plants, reduction of the quality and quantity of land, the piling of sediments inside streams, lakes, brooks and other bodies of water etc. This could be dangerous to aquatic organisms.

c. Pollution

Air pollution and water pollution form a major environmental challenge in Africa today. This happens when the air and water are contaminated with toxic substances and noise which cause impaired the normal functioning of the ecosystem. The effects of air pollution include spread of tropical diseases, extreme weather condition, crop failures and or poor crop yield, while water pollution causes death of living organisms, loss of aquatic species, loss of livelihood of fishermen and many other health hazards such as water-borne diseases.

d. Desertification

Desertification refers to land degradation in arid, semi-arid and sub-humid areas resulting from various factors, including climatic variations and human activities. According to Emiola the main causes of desertification in Africa include over cultivation, overgrazing, deforestation and poor irrigation (120). Desertification causes problems to human life and other living organisms. The scarcity of water and Shrubs in desert regions has adverse effects on living things occupying such regions.

e. Global Warming

Globally, the world is said to be experiencing global warming. This is believed to arise from the effect of the movement of the ozone layers of the earth. In a bid to describe what causes global warming, Emiola said, "The destruction of the ozone layer by industrial smoke, is one particular frightening effect of air pollution. According to scientists, environmental problems such as ozone depletion is responsible for global warming (119). This happens when manufacturing industries vent smoke and discharge chemicals that pollute the air and water sources. The smoke that is emitted into the atmosphere holds deadly gases such

as carbon monoxide and sulfur dioxide. The high levels of pollution in the atmosphere form layers that are eventually absorbed into the atmosphere. Organic compounds such as chlorofluorocarbons (CFC's) have generated an unwanted opening in the ozone layer, which emits higher levels of ultraviolet radiation putting the globe at large threat.

Scientists predict that more people will get sick or die from heat and stress related problems due to excessive heat waves in the daytime and warmer temperatures in the nights. Global warming is also said to be responsible for the severe droughts, erratic climate conditions as well as increase in natural disasters like hurricanes, tsunami, tornados, flood, and erosion in many parts of the world.

f. Earthquakes and Tidal Waves

Earthquakes and tidal waves are natural disasters usually caused by the activities of man. Many nations around the world have witnessed earthquakes and tidal waves with their hazardous effects. Countries such as Japan and India have been grossly affected by earthquakes and tidal waves resulting to devastation and death within the countries and other countries around the world. In Nigeria recently, earth tremors were witnessed in parts of Kaduna state and Abuja, the Federal Capital causing minor damages to property and farmlands. Tidal waves causing massive floods destroyed life, houses, property, farmlands and businesses across many states in Nigeria in 2012. In other parts of Africa, earth quakes and land mines have occurred in the Democratic Republic of Congo, Kenya bringing with untold hardship to the citizens. According to Emiola "Some physicists and geologists claim that earthquakes are caused by excessive killing of animals. It is theorized that dying animals cause acoustic anisotropy due to Einsteinian Pain Waves (EPW) emitted by dying animals (121). This assertion, he viewed deserves further critical scientific investigation.

Biblical therapy to degradation

There is a need for the Church to formulate a theology of nature, that is, a theology that looks at the environment in the light of the Word of God, in order to create awareness on its purposes and values, which will help in its sustenance. Lamenting on the lack of environmental theology, Barnett (23) states, "The Church has a theology of man, but not of nature, a doctrine of the salvation of the Church but not of creation, and eschatology of the soul but not of the body." This therefore is a clarion call for a theology of the environment.

Biblical revelation is explicit on God's love for his creation and care for it (Psa.145:17), even as the entire creation offers praise to the Lord (Psa. 148:7-12). Man ought to relate with creation in a way that brings glory to God. While the universe shared in the fall/sin of man, the redemption of man from sin implies the redemption of the environment. God's plan for redemption include the earth (Gen. 3:17-19; Rom 8:18-25; Eph. 1:10-11). Just as the spirit of God brooded over the earth at creation so shall the spirit be involved in the establishment of the new earth (Gen.:2; Psa.104; Rev. 21: I; 22: 17). All of these passages point to one fact, that is, God is unarguably the creator, owner and sustainer of His amiable universe.

Emiola argues that, one distinctive characteristic of man from the rest of creation is the responsibility given by God to man to "subdue" the earth, and "rule over" (NIV) or "have dominion" (KJV) over the animals (Gen.1:26-28). Additionally, there is the responsibility of man to respond to God in praise and worship for the noble causes God has done for man. In all of these responsibilities God has endowed man with the freewill to obey Him or disobey His commands at his peril. The destruction of the universe's resources today is therefore an aberration to God's original plan for man and his created work.

Incidentally and unfortunately the Hebrew rendering of דָּוָר *du^eyir^ew* 'so that they **may** rule over' (Gen 1:26 NIV), which is third person masculine plural **jussive** from the verb דָּוָה *radah* meaning to have dominion, rule, or dominate, has been completely misunderstood and misinterpreted to mean what God through the writer of Genesis did not intend. Additionally, the Hebrew rendering in Genesis 1:28 of וְכִבְשֻׁהָ *w^ekib^eshua* taken from the verb כָּבַשׁ *kabash* with its many interpretations such as to subject, subdue, force, keep under, bring into bondage, to make subservient, to violate dominate, to tread down, has been given negative meanings, all suggesting to destroy. The conjunction and verb *w^ekib^eshua* meaning "and subdue" is an imperative feminine. It is feminine because in Hebrew, the noun earth/land is domiciled as feminine. So Adam and Eve were to subdue, the earth (Gen 1:28). Commenting on the verbs to rule and to subdue, Akullah observed that it is absolutely impossible for God to have created a universe which He declared good only to hand it over to man to destroy as it is being purportedly implied by many naturalists and materialists (7-9).

It is apparent here that naturalists, materialists and even humanist philosophers and their likes are quick to take undue advantage of the Hebrew verbs *radah* and

kabash that seem to have very strong negative connotations against nature, presupposing that it was God who originally commanded the misuse, abuse, destruction and the degradation of the natural environment. However, this reasoning is far from the truth. None of God's attributes denote him as having destructive tendencies. God is even worried about the destruction of unrepentant sinners, for he would rather have them repent than perish. God is a God of love who loves his created works. Writing on God's love for his created works, Akullah (10) rightly observed; "Indeed, not only does the Lord love his forests as part of his creation, He also loves all that he has made as the psalmist declares "The Lord is righteous in all his ways and loving toward all he has made" (Psa 145:17). So then how can a righteous and loving God who loves all that He has made give out His forests for total destruction?

Firstly, the right to *radah* rule is not a right to tyrannize, oppress, destroy or degrade the environment it is rather a right to service and extends only to such duties as are consistent with the powers of the servants, and with the place which is assigned to them. The right to rule here does not imply destruction, abuse, misuse or degradation of the ecology. Akullah succinctly captured God's mission to man as his ambassadors to the universe in the followings lines:

While God made man in his image, man is to carry the image of God in his assignment on earth as his ambassador protecting the forests which are part of his created work. As God's stewards over God's creation man is like a business manager in an organizational setting whose functions include those of planning, directing, organizing, supervising and controlling the assets and liabilities of the organization (the universe) for growth and profitability. It would therefore be absurd and meaningless for the shareholders (God the Father, Son and Holy Spirit) of the organization (the universe) after setting up their business concern, hire people to only come and mismanage the business let alone destroy it (8-9).

All power is of God, and can only be lawfully exercised when exercised according to His designs. That likeness to God in which man was originally created, reminds man that justice, and goodness, and mercy, are the chief distinctions after which he should aspire; and that our dominion was designed, like that of Him who designed it, to be exercised with wisdom, rectitude, and compassion. Rulership here is therefore to be seen in the light of representing God in carrying out the activities of protecting the environment, maintaining and

tending them for man's benefits which include sourcing for his food without destroying the forests.

God called human beings to a special task for caring for creation as stewards, since they reflect God's image in a unique way (40). There are two major dimensions of the creation of humanity in the image of God. Firstly, that "the image is about the possibility of an ongoing relationship between people and their Creator, and secondly, that image leads to the possibility of dominion over the rest of the created order" (Elsdon, 65).

While man was asked to rule over nature, he is also to depend on it for his survival. Therefore, Genesis 1 :26 & 28; 2:19 & 20 should be interpreted to together with Genesis 2.15 "the Lord God took the man and put him in the Garden of Eden to work it and take care of it" (NIV). To subdue the earth means that man is to make good use of the earth to his advantage without destroying it. It is in this light that contemporary theologians need to exercise a more sensitive and critical attitude towards the traditional understanding of creation.

Christians are Stewards of God's creation.

Christians are well positioned to help tackle the environmental crisis (faith perspective web). It is very essential to know that the relationship between religion and nature is very relevant especially for Christians. For this reason, the mainstream Christian Churches around the world ought to acknowledge the global ecological crises and to re-examine their teachings about the responsibility of Christians toward creation. Man was created in the image of God and was equally given the responsibility to care for the other creatures of God where he (man) has been placed to live (Gen.1:26-28). These verses present man with dual citizenships: both as a part of creation, and as a being higher than other created things. For this reason, as stewards of God, mankind is to care and tend his environment.

Christendom is to discourage those who consider themselves as the lord and masters of the universe entitled to plunder her at will. The earth is burdened and laid waste, and is among the most abandoned and maltreated creations of God as a result "groans in travail..." (Rom. 8:22). Humanity is created from the dust of the earth (Gen.2:7); whose bodies are made up of her elements, we breathe her air and we receive life and refreshment from her water, therefore the universe needs a friendly relationship rather than the destructive relationship it currently gets.

Ehianu called for a global ecological conversion in terms of transforming our attitudes towards our environment. Every effort to protect and improve our environment entails profound changes in lifestyle, models of production and consumption, and the established structures of power which today governs environments (75). Still on Genesis 1 :26-28 by which has been misinterpreted as a license for human over-exploitation of nature, Mbonu, quoting Lawrence Frizzel, holds that the implication of the divine command is that, humanity is the agent of God in regard to the world as a divine kingdom; that dominion is not a license to caprice and tyranny but in its best sense, a challenge to responsibility and the duty to make right prevail over our environment. Buttressing this point further, Mbonu said, the earth has been delivered into the hands of human kind as sacred trust that they can perpetuate in a God's given order (13).

God made the entire world for the sustenance and enjoyment of humanity and he gave man the privileged position to exercise stewardship over the earth. It therefore means that the creation is not to be plundered or abused but to be seen as a resource which God has entrusted to humanity's care, to be used in service appropriately.

Conclusion

The world as a whole has witnessed ecological crises which posed serious threats to human existence and the entire ecosystem. Africa and Nigeria in particular is not left out of this scourge. Recently, it seems the issue on ecological crises has attracted more attention in many disciplines. Religious scholars are not left behind in a bid to provide answers to ecological problems.

The activities of man and other natural disasters are grossly responsible for what we are witnessing today as ecological crises. The ecosystem has been greatly degraded and abused by man resulting to many catastrophes we are experiencing today. Humans and other living organisms within the ecosystem are threatened and or destroyed by the effects of global warming, desertification, deforestation, earthquakes and tidal waves, water and air pollution.

Until we are able to provide a theology which is coherent and practical in solving the daunting effects of ecological crises, life within the ecosystem will continue to be threatened as Emiola sums up, "Man needs to responsibly care for creation for his own sake" (127).

Charting the way forward for a sustainable ecological balance

In the light of the foregoing scenario, the following recommendations are suggested so as to help sustain our environment from devastating effects of ecological crisis:

- ✓ God's original intention and the author's interpretation of Genesis 1:2-28 verbs "to rule", "to have dominion" and "to subdue" should be given in its appropriate context as meaning "to take control", "to tend", "to govern", "to look after", as opposed to total annihilation, subjugation, and destruction of the ecology.
- ✓ The church ought to lead in campaigns against the destruction of the continents ecosystem highlighting the eminent dangers associated with ecological degradation.
- ✓ There is an urgent need for the church to lead in advocacy for the aggressive planting of trees in order to restore and sustain our vegetation.
- ✓ The Church should take the lead in teaching its members about caring for their environment. This should include sanitizing the environment through removal of nylon bags, clearing of gutters, cutting of grasses around the surrounding, providing disposal sewages etc.
- ✓ The Government should enact laws restricting people and industries from tempering with the ecosystem and sanctions against any activities leading to degradation of the environment.
- ✓ Ministry of Environment of the Federal Government and their counterparts in States and other Non-Governmental Organizations (NGO's) should organize public lectures, seminal workshops, symposium etc. on issues affecting our environment and how to prevent such.

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