

The boomerang effect of environmental degradation: The way forward

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Abstract

Any action of man has a boomerang effect. Positive actions have positive effects and negative actions have negative effects. Thus, any action done in the environment has a corresponding effect on humans. When the environment is handled with care and respect, it would provide the needs of humans in appropriate measures. However, when the environment is mishandled, it would produce disastrous consequences like floods, acid rain, global warming, increase in ocean acidity, ozone depletion et cetera. These consequences that accrue from our wrong use of the environment would render the environment incapable of satisfying the teeming needs of man – this work wishes to raise the consciousness of all to this fact. The work advises man to order his actions in such a way that the complementary horizon we share with nonhuman nature will be maintained. Every action that is geared towards harming the other (environment) would bounce back on the actor, because we share the same complementary horizon, which must be maintained, if we all hope to have a meaningful existence. This is necessary because development cannot be sustained if the environment is not preserved. It means Africa cannot hope to attain the height it guns for if appropriate actions are not taken to sustain the environment.

Keywords: Environment, boomerang effect, human actions, complementary horizon.

1. Introduction

Sustainable environment has been the cry of most environmental ethicists, scientists and aesthetes for some years now. It is believed that if the rate at which the environment and its resources are being depleted is not controlled, a time will reach when the environment will no longer be able to support life. That is, man's activities on the environment are degrading the environment, which is the reason why the environment is reacting back through floods, droughts, global warming etc. This is the boomerang effect of our negative actions on the environment.

This work aims at raising the consciousness of humans to the fact that the environmental hazards we are increasingly experiencing are boomerang effect of the poor handling of the environment by humans and not punishment from God as some claim. And that this trend will continue and get worse if our attitude and actions toward the environment are not changed positively.

The work explored the different forms of human activities that contribute to environmental degradation and also showed the various effects of our activities on the environment. And lastly, it points out courses of action to be undertaken to overcome this alarming trend.

2. What is environment?

According to business dictionary, environment is “the sum total of all surroundings of a living organism, including natural forces and other living things, which provide conditions for development and growth as well as of danger and damage.”[1] Generally, the environment is understood as the overall physical and emotional context in which we are located. Environments are not static but dynamic and constantly changing - there are different from place-to-place and from time-to-time. The environment of a fresh-water animal for instance, is different from that of a land animal. The environment of an American is different from that of an African.

There are two types of environment – the human-built and the natural environment. Lagos City for instance, is a human-built environment. The Obudumountain in Nigeria, on the other hand, is a natural environment, created by natural volcanic, geological, and biological processes. The natural environment therefore, encompasses all living and non-living things occurring naturally on Earth or some region thereof.[2]

The components of the natural environment include; vegetation, microorganisms, soil, rocks, atmosphere, and natural phenomena that occur within their boundaries, it also include; air, water, and climate, as well as energy, radiation, electric charge, and magnetism, that is not the result of human activities. It should be noted however that it is difficult to find absolutely natural environments, and it is common that the naturalness varies in a continuum, from ideally 100% natural in one extreme to 0% natural in the other. Even the components of one natural environment may not be the same with another – the degree of naturalness is not the same in all natural environments [3].

However, environments that are dominated by human design and construction are referred to as man-built environment and those environments that are dominated by non-human factors and entities in nature are termed natural environments.

Natural environment are composed of numerous resources which are generally referred to as natural or environmental resources. These resources include the physical ones such as soil, water, forests, fishes, animals, and minerals; the gases such as oxygen, carbon dioxide, hydrogen, nitrogen etc and abstract such as solar energy, wind energy, landscape, good air, clear water, and so forth.

Natural resources could also be classified into renewable and non-renewable resources: the renewable resources are reproducible and in principle could be maintained perpetually. There include: forests, animals, and water. The non-renewable resources on the other hand cannot be restored or the restoration takes place so slowly that it will not increase significantly the stock of resources in any reasonable time span. There include: oil, gas, minerals, and so forth.

Non-renewable resources could also be divided into recyclable and non-recyclable resources. Recyclable resources such as minerals, paper, glass, do not lose their properties when they are used in economic processes. Therefore they can be reused in the economic system. Non-recyclable resources on the other hand are not recyclable, once used; their stock is no more available for future use. This is the case of energy resources such as coal, gas and oil. The unwise use of these resources leads to depletion and other environmental problems.

2. Environmental problems

The unwise use of environmental resources leads to depletion and other environmental problems. These problems generally take the form of pollution, degradation of water, air and soil; deforestation, global warming, overfishing et cetera. The causes of environmental problems are both natural and man-induced. Examples of natural causes are erosion, leeching, earthquake et cetera. Examples of human activities that cause environmental problem or degradation include:

- Agriculture: These include: fishing, irrigation, meat production, palm oil, cattle ranching et cetera.
- Energy/industrial activities like the production of biodiesel, coal, electricity generation, nuclear power, oil shale, petroleum, reservoirs, and wind power also impact on the environment.
- Transportation activities This creates air pollution, including nitrous oxides and particulates, and is a significant contributor to global warming through emission of carbondioxide[4]
- Over population. Over population increases the impact, the human species exert on the environment. It reduces the balance of the ecosystem.
- War. War is one of the major causes of environmental degradation. During war a lot of nuclear weapons are used, which pollute the air, land and water.

Others causes of environmental degradation include: land use, mining, genetic pollution, overexploitation, particulates, pollution, et cetera.

Environmental degradation has a lot of harmful effects. The effects include:

- Biodiversity threat. Biodiversity is the degree of variation of life forms within a given species, ecosystem, biome, or planet.[5] According to Lovett, in 2006 many species were officially classified as rare, endangered or threatened by scientists; and they also estimated that millions more species which have not been formally recognized are at risk. About 40 percent of the 40,177 species assessed using the IUCN Red List criteria are now listed as threatened with extinction-a total of 16,119 [6]
- Global warming: Global warming is the rise in the average temperature of the Earth's atmosphere and oceans. It is reported that since the beginning of the 20th century Earth's mean surface temperature has increased by about 0.8 °C (1.4 °F)[7]
- Deforestation: It is the removal of a forest or stand of trees where the land is thereafter converted to a non-forest use.[8] It has been estimated that about half of the Earth's mature tropical forests—between 7.5 million and 8 million k^m² (2.9 million to 3 million sq mi) of the original 15 million to 16 million k^m² (5.8 million to 6.2

million sq mi) that until 1947 covered the planet—have now been destroyed.[9]

- **Ozone Depletion:** Ozone depletion refers to a steady decline of about 4% per decade in the total volume of ozone in Earth's stratosphere (the ozone layer). Ozone is destroyed by a variety of free radical catalysts, the most renowned being hydroxyl radical (OH·), the nitric oxide radical (NO·), atomic chlorine ion (Cl·) and atomic bromine ion (Br·).
- **Land Degradation:** It is any change or disturbance to the land perceived to be deleterious or undesirable [10]. It is estimated that up to 40% of the world's agricultural land is seriously degraded [11].
- **Ocean Acidification:** Ocean acidification is a concept that refers to the decrease in the pH of the Earth's oceans, caused by the uptake of anthropogenic carbon (CO₂) from the atmosphere. It is reported that between 1751 and 1994 surface ocean pH is estimated to have decreased from approximately 8.25 to 8.14, representing an increase of almost 30% in H⁺ ion concentration in the world's oceans, implying that the ocean acidity is on the rise.[12]
- **Floods:** Floods result when the water level goes above the stream bank height due to heavy rains or sudden snow melt. This extra or excess water that overflows and covers adjacent land is referred to as flood.
- **Pollution:** this is “the process of putting matter in the wrong place in quantities that are too large”. [13] Poor handling of the environment releases tons of different types of pollution into the water, air and land. It is estimated that in United States alone, about 4.5 trillion litres (1.2 trillion gallons) of contaminated water seep into the ground on a daily basis. This comes from septic tanks, cesspools, municipal and industrial landfills and waste disposal sites, agricultural chemicals and wastes.[14] It is also estimated that 1.5 million Americans fall ill from infections caused by faecal contamination which costs billions of dollars per year. Also 6 million metric tons of plastic bottles, packaging materials and other pollutants are thrown into the oceans from ships every year, where they choke seabirds, mammals and fishes. Oceanographers estimate that between 3 to 6 million metric tons of oil are discharged into the world's ocean each year from oil tankers, fuel leaks, intentional discharges et cetera.[15] **Acid Rain:** Acid rain is rain that has pH value below 5.5.[16] Acid rain is known to kill fish, destroy building materials, burn down leaves from trees, and cause diverse hazards to humans. Acid rain is known to kill fish, destroy building materials, burn down leaves from trees, and cause diverse hazards to humans. It is estimated that seedling production, tree density and viability of spruce-fir forests at high elevations had declined about 50 percent in 15

years in several countries in Europe, China and the Soviet Union. The loss to the forest industry is put at 1 billion DM (deutsche marks) per year. Acid rain is also reported to be causing much damage to buildings and work of arts. This is because acid dissolves limestone and marble, corrodes steel, rod iron and therefore destroying beautiful features of buildings and work of arts. The council on Environmental Quality estimates that U.S. economic losses from architectural damage caused by acid rain amount to about 4.8 billion in direct costs and 5.2 billion dollars in property-value losses every year[17].

All these effects have been on the increase in recent times because of man's increasing pressure on the environment. If nothing is done to arrest the level of degradation, man would one day be caught up by the boomerang effect of his actions on the environment – his actions will one day totally collapse the environment.

3. The boomerang effect of environmental degradation

Because all reality share a common horizon, no action could be creditably performed without proper consideration of other beings with which we share this intrinsic belongingness. Any action performed without such consideration necessarily bounces back on the subject – this Asouzu calls the ‘boomerang effect’.[18] He asserts: “within any framework of action ... when any units constituting the whole undertakes to hinder the realization of the interests of other components units, makes the realization of the interests of the offending unit difficult if not impossible[19]. This implies that the pursuance of one's interest in total negligence of others has an indirect repercussion. Pursuance of growth and development by humans in total negation of the interest of the environment would boomerang on the humans. The environment and humans exist in a mutual complementary relationship in service to each other. The environment serves the humans, and humans too serve the environment. When one party fails to render the service it ought to, to the other, then the services it expects from the other would not be received. The rape on nature is therefore, nothing more than negative wisdom. It is negative wisdom, because when we rape the environment to amass wealth for ourselves without a thought for the sustenance of the environment; though we may think this is the smartest and wisest thing to do, but at the long run the effect would indirectly be on us. The same is also true when we loot the public treasury, thinking we are wise and smart, the long run would prove that we are not wise and smart. The public funds that should have been used to create let's say good roads, when hijacked by an individual or group of individuals, would lead to the non-actualization of the project which, could result to that

individual's death by accident or the death of his child or anybody in his enclave. Or if we loot the treasury that was meant for education and deprive the citizens of education, then the country would be plague by untamed minds – we all know the dangers a frustrated bunch of youths could cause to the nation. The *boko haram* pandemonium in Nigeria today is a clear example of the boomerang effect of depriving citizens of their basic needs through corrupt and heedless pursuit of personal interest above the common interest. The insecurity in the country is a problem to everybody in Nigeria directly or indirectly – though you may not be at the sight of the bombings, but no one in his right senses would sleep well in a country with a threatened security situation like ours. Thus, the politicians and other public officials who have deprived the Nigerian poor of a chance to assert their right to the nation's wealth and have thereby plunged Nigeria into this dungeon, because of their penchant to pursue their personal interests in total negation of that of others, are also in a way reaping the boomerang effect of their selfish actions albeit indirectly. The *boko haram* insurgence, the arm robbery, the kidnappings and other evils that have laid siege on Nigeria, are all boomerang effects of the selfish corrupt activities of our leaders. Robbing the others (public) is also robbing the self; harming others (public) is the same as harming the self; cheating the public is the same as cheating oneself which all amount to negative wisdom.

This boomerang effect is also evident in our relationship with the environment. If we rob and loot the environment for our selfish gains, it implies we are robbing ourselves, because when we do this the environment would lose its generative ability which means the end to the existence of humans. Continuous robbing and looting our forest trees would in a short while completely render the forest extinct. When the forest is completely gone, so too would the services the forest offers for us. When the forest completely disappears (as it would soon be the case if urgent actions are not put in place), the atmosphere would be enveloped by excess carbon dioxide and thereby leading to an increase in the global greenhouse gases. Too much green house gases would lead to a global warming that our bodies may never be able to adapt to – this would foretell end to human existence in the planet Earth. Destruction of forest may also increase cases like tsunami, hurricane, drought, flood et cetera; because forest trees also render the service of wind breaking. Also destruction of forests may also reduce the global oxygen, because trees are the major oxygen emitters to the atmosphere. Looting and robbing the forest that at firsthand may appear as a wise and smart thing to do may at the long run show that it has been negative wisdom after all. It is negative wisdom, because it is counter-productive. Wanton felling of forest trees may

appear to be a booming business for those involved, but as it is already evident, global warming is increasing, causing the sea level to rise, which is responsible for the increasing flooding occurrences in the world that have taken a number of lives and properties. The riches made from destruction of forests trees are indirectly paid back to the environment through flooding, tsunamis, hurricanes, droughts et cetera – this is the boomerang effect of our actions.

Industrial activities which today are the yardstick of the measurement of the development of a country are daily churning out dangerous gases into the atmosphere. Now we hear of acid rain, ocean acidification, rise in sea level, ocean poisoning et cetera which is rendering some aquatic species and some predatory birds extinct. There is a report of oil spillage here and there almost on a daily basis, rendering farmland barren. In the Niger Delta of Nigeria, most fertile lands have been destroyed by oil pollution instigating the revolts on oil firms, by groups of militants. Where lands and rivers are poisoned by industrial activities, hunger prevails because the environment is rendered incapable of rendering the services of the provision of food for its human dependants. Some pesticides and herbicides like DDT as Rachel Carson showed is capable of killing useful insects and macro-organisms also; and have the tendency of transporting its harmful effect through the food chain to human beings and thereby causing some ailments. One needs not mention the poisonous gases that humans especially the urban dwellers inhale into their system daily. All these shows that industrial activities and their products though may be considered wisdom by their pursuers, could turn around to become negative wisdom, because one day we may all be destroyed by our hands through industrialization devoid of positive values. We are aware of the nuclear disaster in Japan and other places that destroyed lives and rendered large acres of hitherto arable land barren lands. We are aware of the rate of road, sea and air accidents that plague the world of humans – Nature has its way of getting back its pound of flesh. We are aware of the damaging effects of fertilizers, irrigation and some other impacts of industrialized farming. All these show that the boomerang effect is inevitable, wherever we approach Nature with a hegemonic exploitative demeanour.

All actions performed by man if not done with consideration of the nonhuman Nature also, tantamount to negative wisdom. This is the case also in reproduction. If humans go on reproducing without control and without proper consideration of the effect this would pose on other parts of Nature, it would invariably bounce back on humans. This is because every creature has a stake in the ecosystem; if one specie becomes too numerous as to make the chance of maintaining this stake by other beings impossible, it would boomerang on this specie. For

instance, if the lion specie, becomes too numerous as to make it impossible for other animals (its prey) to have their existence, this would boomerang on the lions. This is because the lions having negated the existence of other beings would starve to death, since other animals that were supposed to render the service of food to it, have been totally negated. This also would be applicable to humans if their teeming population drives other animals and plants to extinction, would be indirectly driving themselves to extinction. The rate of growth of human population as postulated by Malthus is alarming. According to Malthus, human population is growing at geometric progression while the rate of growth of resources is at arithmetic progression [20]. Increasing human population means increasing feeding on plants and animals; it means increasing destruction of forest for farming and housing; it means increasing waning of the ecosystem; it means an increase in extinction rate of plants; it means an increase in pollution. The increasing population of humans as is reported by researchers is daily driving thousands of animals to extinction. There are fears that if the rate of increase of the human population continues unabated, it would reach a period where man would begin to starve to death, because Nature has been rendered totally incapacitated in its service of food to mankind. This shows that population increase, though may appear completely harmless today may have a devastating counter-effect tomorrow. This is because increase in population negates the existence of other beings, and according to Ibunya philosophy, negation of the other is the negation of the self. Affirmation of the other is affirmation of the self. In this case however, there is no affirmation of the other, because our population annihilates their population. The consequence of this annihilation would be the annihilation of the humans. Thus, putting the environment to stress translates to putting the humans to stress.

Any action therefore, that disturbs the balance of the nonhuman Nature has a way of pushing itself back to the humans themselves. The reverse also is true, positive actions towards the environment yield positive dividends to humans. Authentic wisdom therefore, has to consist in striving to maintain a balance in the ecosystem, so that humans themselves would also experience this balance. When the quality of the environment improves, the quality of human life also improves. When humans take care of the environment, the environment would take care of man. When man is friendly to the environment, the environment would also be friendly to man. It is a case of, you can never eat your cake and have it. The relationship of the humans and the nonhuman Nature is a symbiotic one. The two exists in mutual complementary relationship of service to

each other. All missing links are deficient, and thus needing others to satisfy these defects. There need others to complement their defect in mutual service. Thus, every missing link expects the best service from one another, in order for it to have a meaningful existence. The environment therefore, as a missing link expects the best of services for it to have a meaningful existence. And man in turn expects the best of services from the environment, for him to have an authentic existence. Man therefore, owes the environment best of services, in order to get served in good measure. Man owes the environment services of ensuring the continuous existence of each of the other beings in the ecosystem through:

- Maintenance of a comfortable habitat for species to blossom.
- Reforestation to make up for lost trees,
- Habitat restoration – to built a new habitats that have been destroyed.
- Specie introduction – whereby endangered and extinct species are reintroduced into its habitat.
- Promulgation of animal right acts to forestall the wanton hunting down of animals for meat and for sport.
- Cleaning up of polluted areas using methods such as bioremediation, phytoremediation, phytodegradation, phytovolatilization etc.
- Stemming down population growth in order to reduce the impact of humans on the environment.
- Reduction of the amount of waste produced.
- Conservation of energy by increasing fuel economy for automobiles and making individual lifestyle changes.

When these services are given properly and conscientiously to the environment, the environment would be better fit to provide quality services to humans like:

- Provision of a regulated global energy balance and climate.
- Space for human habituation, farming, recreation, energy conversion et cetera.
- Oxygen for breathing, fresh water for drinking and washing, food, medicine, fuel, building materials et cetera.
- Control of flood, storm and other natural disasters.
- Provision of enough coal for fire, clean air for breathing, fertile land for cropping et cetera.
- Provision of an aesthetic, artistic, spiritual, educational, cultural, historic adventures and experiences.

When humans realize the truth that, the environment would be better fit to provide the above services and many more; if humans are able to meet their own part of the contract, that is the moment sustainable development would not only become a bye-word in every lips but also an actual practice.

4. The way forward

Nothing can claim existence until it concedes such existence to others is a fundamental ethical principle that when imbibed by humans would turn the environmental situation around. Negation of the other's existence is the negation of the existence of the self. Harm to others is harm to the self. This is captured vividly by the traditional African story of Ananse the tortoise. The story had it that the village where Ananse the tortoise lived once had a severe famine. For several years there was no rain, and because of this there was no food. In order to stay afloat, the tortoise set out in search of food, he walked miles upon miles and found no sign of food. As luck would have it, when the tortoise thought that his end has come because he barely had strength to move on, he lifted up his head and saw a tree ripe with fruits and the birds were feasting on the fruits. With the little strength he had left, he shouted out to the birds for help. The birds at first ignored him, but because of his insistent pleas, they finally decided to help him. They each donated a feather to him, to enable him fly to the tree top. After this had been done, the tortoise joined the birds in the feast on fruits. He ate and ate until he could eat no more. Being someone we could describe as one who is plague by the constraining mechanisms, he immediately contrived a heinous plan to own the tree for himself alone. He called together the birds and churn out a story concerning how his great grandfather had owned the tree and thus by successive bequest the tree rightfully belonged to him. He therefore begged the birds to honour his birth right and leave the tree for him. The birds felt sad upon hearing this, but had no choice than to leave. But before leaving, they each demanded to get their feathers back, as this is their natural right. And the tortoise who was a birthright activist had no choice than to honour the request of the birds. After the birds had left, he smiled gleefully to himself, fanning himself for his great wisdom and smartness. However, it did not take long before he discovered that his wisdom was actually not wisdom at all, it was at best negative wisdom – this has been the thesis of this work, wisdom that is tended towards hurting, depriving and the destruction of others is a negative kind of wisdom. The tortoise after eating to his fill immediately discovered that he was thirsty and thus would need water. He became thirstier upon discovering that there was a stream beneath the tree he was on. But how can he get to the stream without wings, became his desperate concern. There and then, he discovered that he has foolishly purchased food at the prize of water. There and then, it became clear to him how foolish his wisdom was. It became clear to him, how foolish a wisdom that is not geared towards the affirmation of the interests of all stakeholders could be. It became clear to him that no one can have a meaningful and authentic

existence without conceding the same right to existence to others.

Had the tortoise conceded to others the same right to enjoy the fruits with him, he would not fall and shatter his shell out of a deadly quest for water. He deprived himself of the opportunity to live happily forever by breaking the complementary relationship that ought to exist between him and the birds. If he had affirmed the rights of the birds to the fruits, he would have also affirmed his own right to the fruit – by negation of the right of the birds, he invariable negated his own right. To negate the right of the environment to flourish and develop is to deprive ourselves of the right to develop. The negative effects of environmental degradation abundant in the world today, are clear testimonies to the fact that harm to the environment is harm done to man. If the negation of the environment is not speedily reversed, it would in no distant time be clear to us as it was clear to Ananse that our development that thrives by negation of the environment is not development but in actual fact negative development or pseudo-development. What at first appeared as wisdom to Ananse turned to negative wisdom – what appears to us as development today would one day show itself as pseudo-development and never development – for it would soon crumble to pieces, like Ananse shattered shell. The recent climate change, global warming, floods, droughts, tsunamis et cetera are cracking signs that our development would soon crumble, if a change of attitude is not put in place. The environment need no longer be seen as an external other, but as an extended part of the self, without which the self losses its existence. It is this mindset that would save the environment and man as well.

5. Conclusion

The work aimed at raising the consciousness of humans to the negative effects their actions will cause not only to the environment but indirectly to the self. The researcher operated with the belief that “to know the good is to do the good”. This has been Plato resounding dictum. Knowledge leads to virtue and ignorance leads to vice. It is the same mindset Jesus had when on the wood of the cross, he exclaimed, ‘Father forgive them for they did not know what they are doing’. At first glance it will appear that Jesus was speaking nonsense, for the people who were killing him exhibited all signs of consciousness and knowledge of what they were doing. However what Jesus meant and what we also mean is that, when one knows the overall consequences of his actions he will not do it. Those killed Jesus did not know the overall consequences of their actions. Those depleting the environment do not know the overall consequences of their actions – this work is attempt to raise them to this level of consciousness. It is believed

that when they come to this awareness, they will no longer deliberately plunder the environment.

The researcher is conscious of what Aristotle alluded to that, some men are ruled by the passions and thus words will not bring knowledge.[21] To such people Aristotle advocates force training.[22] To such people I advocate stiff legal rules that would forcefully make them act favourably towards the environment.

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