

THE ECONOMIC IMPORTANCE OF FORESTS: THE BIBLICAL ROLE AND CHURCH RESPONSE IN FORESTS CONSERVATION

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Abstract

*The great danger that stares man in the face consequent upon forest destruction can better be imagined than felt in the real sense of the word. Forest and forest products provide so much for the benefit of humanity and yet all that man does is to destroy this natural resource freely given to him by his creator. Today in Nigeria and most countries of the Africa and the world, the vegetation cover and forests have been deeply depleted posing serious climate conditions on the people. Two key words in the Hebraic Genesis account; *רָדָה* *radah*, raw-daw, Gen 1:26 is rendered "to rule, have dominion, and *שָׁבַד* *kabash*, meaning: to subject, subdue, in Gen 1:28 have either been read out of context or may not been understood and therefore misinterpreted and misapplied by humanity to warrant the destruction of forests and forests products. It is in regard to this wrong notion and conception that this work seeks to closely examine to find out what God really meant when he said that man should rule over his created world and source from "every tree that has fruit with seed in it, his for food" (NIV, Gen 1:29).*

Keywords: Forests, Deforestation, Afforestation, Desertification, Global Warming

Introduction

Forests and forest products have been of great value to humanity since creation. There is a symbiotic relationship between forests and humanity as none can exist without the other. As forest trees give oxygen to humanity so does man give to forests carbon dioxide for survival. However, in recent years there has been a gradual depletion of forests by mankind and this has given birth to consequential results. Humanity, contrary to tending this cherished natural resource for sustenance has turned forests into a pitiable object that must be depleted by all means. The rapid growth in population has not helped matters. This is because while population grows exponentially, there has been no corresponding

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growth in forest trees. On the contrary there is an inverse growth relationship between forests and mankind. As a consequence, to this ugly scenario, today the world over, there has been a gradual rise in temperatures causing global warming, depletion of ice in the arctic zone of the world with resulting high water levels causing massive floods in many countries of the world including Nigeria.

In this paper, the causative factors for forests depletion will be examined, the consequential effects of such monumental destruction will be analyzed and the economic importance of forests will be x-rayed with a view to forestalling the wanton destruction of this prized natural resource. Highlight will be given on the economic contribution of forests to the wellbeing of man and on the need to conserve forests.

Finally, Biblical and Church response in stemming the dreaded scourge of forests destruction will be given so that forests and forest products will be conserved for the well-being of humanity.

Conceptual Framework

The Advanced Learner's Dictionary defines forest as a large area of land that is thickly covered with trees. Forest can also be defined as renewable of natural resources with timber or wood and other forest products for homes and industrial uses, food, shelter for animals and aesthetic values (Orji, 15-18). Forest products include wood and wood materials such as water, fauna and flora species used for medicinal, ornamental and religious purposes, wild edible mushrooms (Pegler and Pearce,475). Other forest products include gum Arabic kola and honey (Seif el dim and Zarragoug, 176-180).

Biblical scholars agree on the fact that forests are a creation of God. In his creative work, God commanded the land to produce the vegetation, seed bearing plants and trees that bear fruit with seed in them on the third day of creation. After this great act of creation God declared that this was good. God intended that the seed bearing plants and the trees that had seed in them be food for the man he had made in his image on the sixth day (Gen 1:29). As God's steward on earth man was instructed to subdue the earth and to rule over it in a manner that would give glory to God and also manage it for his sustenance for food. The natural vegetation is part of God's creation given to man wherefrom he derives his food. Today

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however, most of the natural forests across the globe have been depleted and are on verge of extinction with attendant consequences on the environment and on man.

Writing in his article, Egbogah argues that effective spirituality should be holistic i.e. the African Christian should not only aim at what pleases God, but also what provides the ultimate good of man to his neighbor and the conscious promotion of ecological balance in the whole creation(3). In other words, man while maintaining the vertical relationship with God must as well have a horizontal relationship with both man and God's creation. This means that the traditional approach to spirituality of prayer, bible study, meditation, contemplation and retreat without regard to humanity and vegetation has to be discarded for holistic spirituality.

Some facts about Nigeria forests

- I. Forest cover thins out as one moves from the south to the north;
- II. There are two broad types (Forests and Savanna);
- III. Plant diversity: Over 4,600 plant species identified (Ranked 11th in Africa);
- IV. The forests have over 560 tree species with a range of 30 to 70 species per hectare.

Deforestation

Deforestation is the process of cutting down or burning the trees. It is also defined as the removal or destruction forest vegetation unaccompanied by deliberate effort at its replacement (Oguntala, 262-272). Deforestation involves not only the cutting of trees but also the removal of plants and shrubs. Oguntala gives the reasons for deforestation to include the conversion of forest lands for agricultural practices, indiscriminate bush burning, and unsustainable logging (262-272). Sobowale et al add that infiltration of forests by Fulani cattle herdsman for grazing, farming activities within forests and fuel wood for cooking and heating as reasons for deforestation (51-56). It is reported that Fulani herdsman usually set bush fires to encourage regrowth of fresh grasses for grazing of cattle and because of scarcity of kerosene and its high cost when available makes peasants to rely on fuel wood for cooking. Of recent Nigeria's forests and savannah wood have witnessed a monumental pressure due largely to population growth, thus the demand for agricultural land, timber, fuel wood, bushfires and overgrazing have been on the increase. Esuene

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corroborates these claims by adding that these illegal activities have led to the fall in productive capacity of arable lands with the result that the vegetation structure and composition of forest lands have altered from what they used to be(9-10)).

The Causes of Deforestation

The management of forests in Africa and Nigeria in particular has been poorly given attention to by the governments of the various countries. This has given rise to land degradation in many forests across the continent leading to destruction of forests species. It is widely known that government funding of forests has been on a steady decrease especially in states where large sums of revenue are derived from forests products with little plough back into the management of forests (Akindele, 70-79).This lackluster attitude by government has heightened the destruction of forests. The causes of forests depletion include the upsurge in population growth thus putting enormous pressure on forests reserves, logging timber, farming, forest fires, and fuel wood. This fact is corroborated by Kio who agrees that 86% of the respondents in a sample population of 100 interviewed in six states of Nigeria said that agriculture was the major cause of deforestation. This is followed by shifting cultivation with 59% of the respondents Fuel wood has 55% of the respondents while bushfires have 41% as the cause of forest depletion (35-43).Serious forest depletion has taken place in the last ten years in Nigeria due largely to lack of monitoring by forestry staff as aresult of poor funding from government. Forestry staff are alleged to connive with loggers and poachers who carry out these nefarious activities for small tips.

The Effects of Deforestation

Deforestation of forests in the Northern Guinea and Sahelian Savannah of Nigeria whose states include Sokoto, Kebbi, Jigawa, Katsina, Kano and Bauchi has caused severe wind erosion with attendant large sand dunes. These sand dunes have in turn destroyed houses and covered farmlands stretching kilometers of surface lands making them unproductive wastelands. In the rainy season water erosion silts the rivers and streams thus again covering water bodies, destroying aquatic life and fish etc. The destruction of farmlands by sand dunes and the siltation of sources of

water for human and animal consumption has caused the migration of Fulani herdsmen into the hinterland of the country thus causing the skirmishes between indigenous farmers and the herdsmen. At present Fulani herdsmen are causing havoc in the entire length and breadth of Nigeria. There have been constant killings in the states of Benue, Plateau, Taraba, Southern Kaduna, Oyo, Ogun, Enugu, Anambra, Oshun, Ekiti, Kwara, etc. by the herdsmen who arm themselves with sophisticated weapons, killing thousands of innocent farmers, burning their houses, eating up crops while destroying farmlands while the government watches helplessly. Indeed, the herdsmen scourge has assumed a disturbing trend such that some people are beginning to think that another Boko Haram is in the making particularly with the seeming helpless action of the Buhari government to stem the tide of wanton killings and destruction of property running into billions of Naira.

In the dry season, the poor vegetation cover owing to deforestation leads to harsh hot weather whose excessive heat waves cause diseases like meningitis, smallpox, chicken pox, measles, conjunctivitis and malaria (Igboanugu, 34-38). Scholars say that deforestation leads to a decline in rainfall, increase surface temperature and alters the local hydrology (Adedire, 270-271). Deforestation increases the amount of CO₂ in the atmosphere. This is because the trees that would have converted the CO₂ emitted into the atmosphere into their food through photosynthesis have been destroyed thus promoting excessive heat waves. Okojie posits that global warming is a result emission of fossil fuels in the atmosphere and deforestation. According to Ausceanac, greenhouse is associated with forest degradation. This has a direct consequence to the depletion of the ozone layer that shields the earth from direct heat waves from the sun. Fierce winds as a result of deforestation increases the loss of moisture and water requirements for human and animals. This causes animal blindness and even death when the winds are dusty and sandy hot (Baumer, 250). Forest depletion has led to the extinction of many animal species such as elephants, lions, tigers, and hyenas as corroborated by (Oloyede, 12-13).

The economic importance of forests

Humanity benefits immensely from forest products and services. The measure of economic value of forest products and services is relevant to individual's willingness to pay for such benefits. These values can be

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classified into direct usage values and indirect usage values. The direct usage values include timber, fuel wood and tourism, while the indirect usage values include the protection of watersheds, and the storage of carbon.

1. Timber values. This has to do with the felling of trees for timber products such as poles for domestic consumption and for export to attract foreign exchange. Kio (2000) reports that Timber contributes to the income of individuals and even governments. 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.
2. Fuel wood and charcoal. Fuel wood is the primary source for cooking and heating among the poorer countries of the world. Large percentage of this fuel wood comes from the forests. Kio says that 55% of the respondents in his survey agreed that fuel wood is a major contributor for cooking and heating in Nigeria (35-43).
3. Agriculture. With the increasing growth in population in many African countries the demand for land for agricultural activities is overwhelmingly on the increase. Land situated in the forests is usually very fertile for farming as there are proven cases of product high yields. Other benefits include;
4. Poaching of animals for bush meat for local consumption and for export
5. Sourcing of fish, crustaceans such as crabs etc., birds for local use and for export.
6. Taking tree products such as roots, bark of trees, leaves for medicinal use.
7. Taking latex from rubber trees, wild cocoa, honey, gum Arabic, nuts, fruits, flowers, seeds, spices etc. for subsistence.
8. Forests help in maintaining soil quality.
9. Forests help in controlling water and wind erosion.
10. They modulate siltation and flooding.
11. They protect waterways and marine resources from accelerated siltation.
12. Forests protect watersheds.

Omiyale adds that the economic importance of forests to farmers include;

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- The increase in land productivity due to improved soil fertility.
- The contribution of income among small scale farmers from the sale of forest products such as fruits, nuts, seedlings, poles, fuel wood and charcoal.
- The protection of productive potential of a given site and the improvement of the environment (1-8).

Plotkin argues further that forests offer a range of benefits to humanity and these range from medicines against incurable diseases to varieties of economically important plants whose resistance to disease or productivity may be incorporated into crop varieties (108-110).

Biblical Response to Forest Conservation.

In the genesis account of creation, we observe that God after creation handed his created work to man to “rule” over it (NIV, Gen 1:26) and to “subdue” creation (Gen 1:28). It must be understood that God’s created work was declared good so the whole creation was without sin until the fall of man in the garden. However, since the fall, man has continually disobeyed the instruction of God to rule and to subdue the earth to mean total destruction of the creator’s work. This is seen in the destruction of nature’s beautiful forests. As God’s stewards on the earth the command to rule or have dominion and to subdue the earth did not mean to destroy God’s creation. It is senseless to imagine that a Holy and righteous God would after creating a world which he himself would declare to be good, hand it over to man to destroy as being misunderstood in the usage of the verbs to rule or have dominion and to subdue it. This is more so when man is told that his food would come from “seed bearing plants...and every tree that has fruit in it” (Gen 1:29).

The Hebrew verb *רָדָה* {raw-daw’} in Gen 1:26 is rendered “to rule, have dominion” dominate, tread down, to have dominion, rule, or to subjugate. It is pertinent to observe here that the right to rule is not a right to tyrannize or destroy the beautiful creation of God as enshrined in the vegetation. It is a right to service and to tend the vegetation as commanded by the creator for the benefit of man which includes his source for food. This right extends only to such duties as are consistent with the powers of the servants, and with the place which is assigned to them. All power is of God, and can only be lawfully exercised when

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exercised according to His designs. That likeness to God in which we were originally created, should remind us that justice, and goodness, and mercy, are the chief distinctions after which we should aspire; and that our dominion was designed, like that of Him who designed it, to be exercised with wisdom, rectitude, and compassion.

In the same vein, the Hebrew verb *קָבַשׁ*, *kabash*, meaning: to subject, subdue, force, keep under, bring into bondage in being misunderstood and misinterpreted to mean to annihilate, to destroy and to deforest. This can only be far from the truth as God would not just create and hand over to man to destroy, then there would no justifiable reason for creation in the first place. God's creation is for the benefit of humanity. The verb *קָבַשׁ*, *kabash*, simply means to have control over God's creation as stewards. This verb is used in Joshua 18:1 with the sense of the land being "conquered, overcome, overpowered." TEV translates "bring it [the earth] under control"; SPCL says "Fill the earth and govern it." Subdue and have dominion over are parallel expressions with reference to the plants and animals that God has put on the earth. This is not a command to go to war, but for the first people and their offspring to "take control, be in charge, have direction over." Have dominion over... is translated by FRCL "Be masters over...", and by TEV "I am putting you in charge of...." In some languages subdue is expressed idiomatically as "make everything in the world come underneath your hands," and have dominion as "you will be boss...."

The making of man in the image of God was so that he would 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 for growth and profitability. It would therefore be absurd and meaningless for the shareholders of the organization after setting up their business concern to now hire people who would come and mismanage the business let alone destroy it. Man was therefore created to have dominion over God's creation (Gen 2:26, 28). Adam and Eve were the first regents over God's creation (Ps 8:6-8). "The heaven, even the heavens, are the Lord's; but the earth He has given to the children of men" (NKJV, Ps 115:16).

Sadly, though, when Adam and his wife believed Satan's lie and ate of the forbidden fruit, man lost this dominion over the earth and began to destroy

God's creation; and now sin and death reign over the earth (Rom 5:12-21). The good news is that the coming of God's son, Jesus Christ, the last Adam (1 Cor. 15:45), to earth, the Lord Jesus restored the dominion that the first Adam had lost. He did by demonstrating that He had authority over the fish (Luke 5:1-7; John 21:1-6; Matt 17:24-27), the fowl (26:69-75), and the animals (Mark 1:13; 11:3-7). When He died on the cross, He conquered sin and death, so that now grace can reign (Rom 5:21) and God's people can "reign in life" through Jesus Christ (v. 17). One day, when He returns, Jesus will restore to His own the dominion that was lost because of Adam (Heb 2:5 ff).

We must observe that Adam and the animal creation were vegetarians until after the Flood (Gen 1:29-30; 9:1-4). Isa 11:7 indicates that the carnivorous beasts will return to this diet when Jesus Christ returns and establishes His kingdom on earth.

The following passages show the high premium God places on his creation and forests inclusive and the literary figures of speech; personification and metaphors, etc., that have been employed to sing, exalt, praise and to adore God:

- I. Sing, O heavens, for the Lord has done it; shout, O depths of the earth; break forth into singing, O mountains, O forest, and every tree in it! For the Lord has redeemed Jacob, and will be glorified in Israel. (Isa 44:23).
- II. Let the field exult, and everything in it! Then shall all the trees of the forest sing for joy
- III. (Psa 96:12).
- IV. Then shall the trees of the forest sing for joy before the Lord, for he comes to judge the earth. (1Ch 16:33).
- V. I made myself pools from which to water the forest of growing trees (Ecc 2:6).
- VI. As an apple tree among the trees of the forest, so is my beloved among the young men. With great delight I sat in his shadow, and his fruit was sweet to my taste (Sol 2:3).

Indeed, not only does the lord love his forests but he 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" (Ps 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?

THE ROLE OF THE CHURCH IN THE PRESERVATION FORESTS

The response of the church in the preservation of forests has to be an urgent concern not only to church leaders but the entire Christendom. For God's original mandate for the care and tending of the natural forests and vegetation has been disobeyed and misconstrued for total destruction. God never intended that his natural and beautiful forests be raped but rather man is even to source his food from the forests. The church therefore has to rise up and protect these natural resources as this would be seen as pleasing the creator of the universe. There has to be a vertical, loving relationship between man and God, horizontal loving relationship between man and man and between man and his environment. The effects of forest depletion are what we are witnessing in global warming, Fulani herdsmen attack on peasant farmers, el Niño, i.e. lack rainfall, crop failures and so many other devastating effects. This is because of sin against God, sin against humanity and sin against the environment. The church leaders should therefore preach:

- I. Correctly and interpret the Hebrew verb *רָדָה* *radah* in Gen 1:26 rendered "to rule, have dominion" dominate, tread down, to have dominion, or to subjugate, and the Hebrew verb *כָּבַשׁ*, *kabash*, meaning: to subject, subdue, in Gen 1:28 in its appropriate context as meaning to control, to tend, to govern, to look after as contrary to what is happening now in the total destruction of forests and forest products.
- II. The message of repentance to its members informing them of God's original mandate for the care and tending of the forests and not to subdue forests in the sense of destruction. God told his obstinate children the Israelites saying "When I close up the sky so that it doesn't rain, or command locusts to devour the land's vegetation, or send a plague among my people, if my people, who belong to me, humble themselves, pray, seek to please me, and repudiate their sinful practices, then I will respond from heaven, forgive their sin, and heal their land(2 Chr. 7:13-14).
- III. The message of God's love not only to humanity but to also to God's vegetation.
- IV. The message that deforestation is sin against God and humanity.

- V. The message that deforestation leads to many side effects such as global warming, lack of rainfall, poor harvest yield, and massive floods etc.
- VI. The message that increasing heat waves as a result of deforestation causes diseases to humans (meningitis, small pox, conjunctivitis and malaria etc.) and animals (blindness and even death).
- VII. The church leaders should lead in tree planting campaigns liaising with local, state and federal government to get plant seedlings, fast growing and economic trees for planting.
- VIII. A standing policy that for every tree cut down there must be a replacement.
- IX. Alternative usage of gas and kerosene stove instead of firewood fuel for cooking.

CONCLUSION

Forests and forest products are a creation of God and handed over to man in his ambassadorial capacity as steward to tend it for food and for his economic use. Forests when destroyed without replacement of trees give rise to hazardous consequences. These hazards may include rise in temperatures, global warming, rise in water levels causing floods, irregular weather cycles, desertification, short and distorted rainfall cycles causing crop failures which leads to famine, extinction forest wild life and so on. Therefore, for humanity to have maximum benefit of the eco system, there must be a reciprocal respect and value re-orientation placed on forests and forest products without wantonly destroying the good work of the Creator as forests destruction will ultimately lead to human destruction.

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