

**ECOTHEOLOGICAL ANALYSIS OF GENESIS 2:8-17: “TREE TOWN” MODEL
AS A PANACEA TO INAPPROPRIATE URBANIZATION STRATEGY IN AFRICA**

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Abstract

One of the basic practices of urbanization in post-independent Nigeria is the total removal of green vegetation from human neighbourhoods. As the villages developed into semi-urban and urban areas, as the case may be, all the existing trees and the entire green vegetation were completely cut down. The result of this action includes exposing human dwellings to excessive heat of the sun, wind force, spread of diseases, etc. African forefathers planted trees along the roads to provide shade as they walked their way from one village to the other, but modern developers are in the habit of indiscriminately felling trees to make everything appear clean and developed. This, unknown to the government, does more harm than good as the environment, which was once conducive, becomes excessively hot, leading to citizens going to purchase electric fans and air-conditioners to create an artificial environment that is favourable for human habitation. The objective of this study, therefore, is to show how a wrong understanding of urbanization has created huge environmental challenges in Africa. In doing this, the study carried out a theological analysis of Genesis 2:8-17 to identify the nature of the environment of the first human beings. The study discovered that the Garden of Eden was a tree town and that trees were the most important component of the garden. The trees were meant to serve very important purposes, such as food for man, medicine, shelter, and to provide comfort and aesthetics. The paper concludes by recommending a tree town model that is patterned after the Garden of Eden. To achieve this, the government at all levels should develop a tree planting initiative/ policy as a mechanism for the sustenance of the environment. This will indeed help to deal with the negative effects of climate change in Nigeria and, by extension, Africa.

Keywords: Eco-theology, environmental abuse, tree town model, ecosystem, urbanization

Introduction

One of the greatest global challenges that human beings are faced with in contemporary times is climate change. Certainly, human activities such as deforestation, erecting buildings across waterways, land reclamation, environmental pollution, uncontrolled use of chemicals on the environment, and other similar practices have significantly contributed to the excessive rise in environmental temperature to the extent that human lives all over the world have come under great threat. According to Clingerman (2011), if nothing is urgently done to reduce global

warming, human life will soon go into extinction. Africa, and Nigeria in particular, is not immune to this global threat, as reckless human activities leading to environmental abuse are now ubiquitous.

Before the creation of humankind, plants and animals were already in existence in the Garden of Eden. The Bible, in the creation story, affirms that man was the last thing to be created. The implication of this assertion is that man, in the Garden of Eden, was going to depend on the non-human components of the ecosystem for his livelihood and survival (Migliore, 2004). God placed the man and woman He had created into the Garden and specifically gave man the onerous task of caring for the garden. Life in the Garden of Eden was such that man and other animals, on one hand, and man and the natural vegetation lived in harmony until man was chased out of the Garden due to disobedience to God (Hinson, 1992).

Irresponsible use of the Earth and its resources has given rise to all manner of diseases. Global warming has resulted in an unusual rise in global temperature, resulting in a rise in sea level, which has provoked serious flooding all over the world. Agriculture has also been affected because of variations in weather conditions. The use of chemicals for farming has led to the death of several earth-enriching organisms. Similarly, water, air, and land pollution have given rise to many life-threatening diseases. The effects of harmful human activities are so numerous and obvious that the Church can no longer remain aloof (Gnanakan, 1999). Ecotheology is one of the ways the Church is addressing environmental issues that are plaguing the entire human race in the contemporary time (Conradie, 2019).

The purpose of this study is to exegetically examine the nature of the environment where the first humans were given as their abode. The Garden of Eden was planted by God according to the Bible, and besides human and animal lives, other prominent features of the

garden were the presence of all kinds of trees and rivers flowing across to water the garden. Everything man needed was made available in the Garden. Going forward, the paper undertakes a clarification of some of the critical words that are connected to the study. This is to facilitate understanding of the discussion. A theological analysis of the text follows, using exegetical and hermeneutical tools. The findings of the study lead to the idea or proposition of a “Tree Town” Model, which the study recommends to be adopted as an effective mechanism in the fight against climate change. This is explicated accordingly. One sure way of dealing with the issue of global warming is the initiative and adoption of the “Tree Town Model,” which is rooted in the text.

Definition of terms

Ecology: Ecology is etymologically derived from two Greek words, namely *oikos*, meaning home or a place of abode, and *logos*, which means science or study of something. Ecology, therefore, in its simplest form, means the study of a place where plants and animals live. Mugambi (2001) defines Ecology as the scientific study of the relationship of plants and animals in their environment. Agbogidi (2019) adds that ecology includes the relationship of plants and animals to one another, and the influence of human beings in the ecosystem. The definition provided by Professor Agbogidi is quite germane to this study and will be depended upon in the entire discussion in this article.

Eco-theology: Eco-theology, which is a short form of ecological theology, is the theology that cares for creation in the time of crisis. It is a form of constructive theology that focuses on the interrelationships of religion and nature, particularly in the light of environmental concerns (www. En. M. Wikipedia.org). It is rooted in the understanding that there is a relationship that exists between Christianity and the current environmental crisis and

or restoration of nature. It explores the interaction between ecological values, such as sustainability, and the human domination of nature. It is important to keep in mind that ecotheology explores not only the relationship between religion and nature in terms of its degradation, but also in terms of ecosystem management in general. It not only seeks to identify environmental abuses but also to outline potential solutions. This is of particular importance because Ecotheologians believe that science and education are not adequate to inspire the change necessary in our current environmental crises. For the avoidance of doubt, ecotheology and environmental theology are used interchangeably in this study.

Ecosystem: An ecosystem, according to Agbogidi (2014), is the structural and functional unit of ecology, which has a definite structure associated with definite functions, which it plays in the functioning of the physical environment. Agbogidi (2019) also refers to the ecosystem as the combined physical and biological components of the environment. In an ecosystem, each species performs a particular role within the system regulating of climate. In the environment, everything is connected. A break in the chain can cause a major malfunction and halt the process. There are two types of ecosystems, which are aquatic and terrestrial. In this paper, the two are relevant, but particular attention is paid to the terrestrial ecosystem.

Model: Oxford Advanced Learner's Dictionary (9th edition) defines a model as a simple description of a system used for explaining how something works. It also means something such as a system that can be copied by other people. A "Tree Town Model," as proposed in this paper, is a simple description of a system used in explaining how the ecosystem should be recreated as a solution to the effects of climate change.

Urbanization: This can be defined as a process whereby people migrate from rural to urban areas, resulting in the growth and expansion of the town or city that has received such

an influx of people. The result of this is that there is usually a change of attitude towards life and land, which often results in the construction of more buildings.

Inappropriate urbanization strategy: This refers to an urban development approach that is not environmentally friendly. In this article, by inappropriate urbanization, we are referring to the government and developers' approach to urban development that is characterized by indiscriminate tree-felling without replanting. Hardly do you see any trees standing in any urban centre in Nigeria. This method of urbanization has increased environmental temperature, thereby contributing to the overall global warming challenge. It also refers to a pattern of infrastructural development in towns/ cities, which is usually different from the strategies adopted in rural areas. For example, rural areas are not bordered by surrounding vegetation when they construct their buildings, unlike the cities/ towns where clean-up of vegetation is first carried out before construction commences. This is indeed an inappropriate urbanization strategy.

Tree Town: The idea of a tree town is derived from the text Genesis 2:8-17. From this text, one can agree that the first place created for man's habitation was a garden surrounded by all manner of trees. Each of the trees performed functions in line with the intention of the Creator. Besides providing food and shelter for man and other created things, the trees were to provide a conducive atmosphere that is environmentally friendly. The concept of a tree town was inspired by the understanding of the ecosystem that existed in the Garden of Eden.

Background and Context of Genesis 2:8-17

The Book, Genesis is the first book in the Canonical Books of the Bible. The book is called "Beginning" by the Greeks and *Bereshith* by the Jews (Hinson, 1992). It is the only book of the Bible that gives the account of creation by the Creator Himself. Through His Servant

Moses, the Holy Spirit traces the beginnings of man, woman, marriage, the home, sin, sacrifice, cities, etc. For this essay, we concentrated on the second story of creation in Genesis 2:8-17. This text presents a profound theological and ecological narrative centred on the Garden of Eden. According to the passage, Elohim planted a Garden in Eden and placed the first humans He created to tend and care for it (V.15). The names of the two categories of trees are mentioned which are the "tree of life" and "the tree of the knowledge of good and evil" (Hinson, 1992). These stood in the middle of the Garden, which represents life, wisdom, and moral responsibility.

The text underscores a divine-human relationship rooted in the stewardship, not exploitation of nature. The text also presents Eden as a garden with biodiversity that was well watered and an orderly habitat- an ideal model of sustainable coexistence between humanity and the environment. In contradistinction to modern urbanization trends, this text contrasts sharply, especially in parts of Africa, where rapid expansion often neglects ecological balance. The Eden narrative offers a template for "Tree Town" models- urban designs that prioritize green spaces, biodiversity, and human responsibility towards nature. By reimagining the cities through the lens of Genesis 2, African Urban planning can draw from its spiritual heritage to address ecological degradation and promote sustainable living. This ecotheological lens invites a reevaluation of urban growth strategies, advocating a return to balance, harmony, and divine ecological order.

Exegetical Analysis of Genesis 2:8-17

Genesis chapter two, verses eight to seventeen, is the text upon which this study is based. Before we proceed to exegetical analysis, let us examine /look at the text as it is, both from the Hebrew text and the English equivalent.

Hebrew text

8. וַיֵּטֶע יְהוָה אֱלֹהִים גֶּן-עֵדֶן מִקְדָּם וַיִּשֶׂם אֶת-הָאֲדָם אֲשֶׁר יָצָר:
9. וַיִּצְמַח יְהוָה אֱלֹהִים מִן-הָאֲדָמָה כָּל-עֵץ נָחֵמַד לַמַּרְאָה וטוֹב לַמֶּאֱכָל.
וְעֵץ הַחַיִּים בְּתוֹךְ הָעֵץ וְעֵץ הַדַּעַת טוֹב ורָע:
10. וְנָהָר יֵצֵא מֵעֵדֶן לְהַשְׁקוֹת אֶת-הַגֵּן וּמִשָּׁם יִפְרֹד וְהָיָה לְאַרְבָּעָה:
רְאשִׁים:
11. שֵׁם הָאֶחָד פִּישׁוֹן הוּא הַסּוֹבֵב אֶת כָּל-אֶרֶץ הַחַוִּילָה אֲשֶׁר-שָׁם הַזָּהָב:
12. וְנָהָב הָאֶרֶץ הַהִיא טוֹב שָׁם הַבְּדֹלַח וְאֶבֶן שֵׁשֶׁם:
13. וְשֵׁם-הַנָּהָר הַשֵּׁנִי גִיחוֹן הוּא הַסּוֹבֵב אֶת כָּל-אֶרֶץ כּוּשׁ:
14. וְשֵׁם הַנָּהָר הַשְּׁלִישִׁי תִּגְרִס הוּא הַהֹלֵךְ קִדְמַת אַשּׁוּר וְהַנָּהָר הָרְבִיעִי:
הוּא פָּרָת:
15. וַיִּקַּח יְהוָה אֱלֹהִים אֶת-הָאָדָם וַיְנַחֲהוּ בְּגֶן-עֵדֶן לְעֹבְדָהּ וּלְשִׁמְרָהּ:
16. וַיֹּצֵא יְהוָה אֱלֹהִים עַל-הָאָדָם לֵאמֹר מִכָּל עֵץ-הַגֵּן אָכַל תֹּאכַל:
17. וּמִעֵץ הַדַּעַת טוֹב וְרָע לֹא תֹאכַל מִמֶּנּוּ כִּי בַיּוֹם אֲכָלְךָ מִמֶּנּוּ מוֹת:
תָּמוּת:

English Translation

8. And the LORD God planted a garden in Eden, in the East; and there he put the man whom he had formed. 9. And out of the ground every tree that is pleasant to the sight and good for food, the tree of life also in the midst of the Garden, and the tree of the knowledge of good and evil. 10. A river flowed out of Eden to water the garden, and there it divided and became four rivers. 11. The name of the first is Pishon; it is the one which flows around the whole land of Havi'lah, where there is gold; and the gold of the land is good; bdellium and onyx stone are there. 13. The name of the second river is Gihon; it is the one which flows around the whole land of Cush. 14. And the name of the third river is Tigris, which flows east of Assyria. And the fourth river is the Euphrates. 15. The LORD God took the man and put him in the Garden of Eden to till it and to keep it. 16. And the LORD God commanded the man, saying, "You may freely eat of every tree of the Garden, 17. But of the tree of the knowledge of good and evil, you shall not eat, for in the day that you eat of it you shall die (RSV).

Exegesis of Genesis 2:8-17

God planted a garden (Eden) and placed the man He created inside the Garden. A garden is a piece of land next to or around a home where one can grow flowers, fruits, and vegetables. A garden town is therefore a city that has been specially designed to have a lot of open spaces, Parks, and trees. To plant signifies the action of placing either seeds, cuttings, or small samples of plants into the soil to bring them to growth (Agbogidi, 2014). A plant includes trees, vines, shrubs, herbs, vegetables, flowers, fruits, or ornamental forms of life characterized by roots, a stem, and leaves or foliage equivalent (Achtemeir, 2005). The general disposition reflected in the Bible is that plants, like animals, marine, and other forms of life, are God's good gifts. As such they are to be cherished, used, enjoyed, shared and processed for the good of all people (Gen. 1:29, 30; 2:8; 3:18). The gift of the Garden is a sign of God's love, for it provided a framework in which God could train human beings and give them the reference points they would need to face the vast new universe that lay around them. The Garden contained all that they needed.

The Garden that God planted in Eden was towards the East, that is, East of Palestine, the Point of reference for Bible directions. It was located in the region of Mesopotamia, near the Hiddekel (Tigris) and Euphrates Rivers (Hinson, 2004; MacDonald, 1995). All kinds of trees were made to grow in Eden, but special attention is drawn to two trees (2:9). The first is the tree of life, which was a concrete indication of God's presence and thus was placed in the middle of the garden. The relationship with the Creator must be central to human existence. The second is the tree of the knowledge of good and evil, which was a sign of the existence of evil and the presence of the evil one before the creation of man. This evil one was certainly the first to disobey the Creator, and the presence of this tree warned human beings not to follow his example. The tree of the knowledge of good and evil provided a test of man's obedience. The only reason it was wrong to eat of that fruit was because God had said so.

God made a river to flow through the garden to water it (2:11-14). Man was placed in the Garden to work it and to take care of it (2:15). Man had a two-set of responsibilities, namely to work the garden and to take care of it. Work did not start with the fall but was part of God's original plan for humankind. God created the garden, but the duty of maintaining the Garden was committed to man. This principle applies to us today as it applied to Adam. According to Genesis 4, Abel was a keeper of sheep while Cain was a tiller of the land, representing the two-fold responsibility of man. It is not enough to create a garden, but to maintain and defend it from whatever attempts to destroy it. Additionally, man was restricted from eating from the tree of knowledge of good and evil (2:16), and there were many punishments awaiting man if he disobeyed. The restriction was justified because it aimed to preserve life (Adeyemo, 2006)

Ecosystems and Christian environmental responsibility

What is an ecosystem? This refers to the combined physical as well as biological components of the environment. It also refers to a unit of biosphere in which a community of organisms interacts within the environment (Agbogidi, 2019). According to Money (2013), a break in the chain can lead to a major malfunction and halt in the ecosystem. Therefore, all the parts must be preserved to keep the whole regulatory, leisure, cultural, and aesthetic value (Agbogidi, 2014). From the ongoing, an ecosystem can be defined as the physical and biological components of a given environment and the relationship between all the elements of the environment, including man's relationship with both plant and animal life within the environment. The ecosystem is broadly divided into two, namely the terrestrial (this refers to all the plants and animals that live on land) and the aquatic (which refers to all life, including plants and animals that naturally live in water as their natural habitat).

What are the components of the ecosystems?

An ecosystem usually has two main components, which are the biotic component and the abiotic component. All living creatures in any given ecosystem are classified as biotic components of that environment (Berry, 2009). These include all groups of plants and animals according to their sizes, functions, structure, forms, etc. This component is full of biodiversity. Examples of animals under this category are the vertebrates, such as fish, birds, reptiles, amphibians, lions, and all types of visible animals, including humans. The invertebrates are animals that do not possess a backbone. The abiotic components of the environment are all factors that affect the form, growth of individual plants and animals, plant and animal association, as well as all the factors that affect plants from sprouting or germinating to reproduction, maturation, and finally death (Okonta, 2014).

Additionally, it is important at this level to examine the services which the ecosystem provides for man and animals on a daily basis. Abubakr (2014) sees the ecosystem services as those environmental functions and other benefits that society relies on the ecosystem to provide. Food, clothing, and shelter are the primary needs of man and all these are met by plants and animals within the ecosystem. The Earth is a plant-oriented planet and can never survive without plants. Without plants, life on Earth would be impossible. In fact, Agbogidi (2005) notes that plants are the basis for civilization. Apart from providing man with the necessities of life, the ecosystem also includes the renewal of soil fertility. The importance of some other provisional services is more difficult to evaluate. The photosynthetic ability of the ecosystem makes food available to all living organisms and ensures food security. The ecosystem is also self-regulatory. It also helps to support all forms of farming. The cultural and religious use of the ecosystem cannot be undermined, especially in Africa. The ecosystem often comes with beauty and all manner of aesthetic outlook, which creates a sense of comfort and relaxation for man.

What is the nature of the relationship in the ecosystems? I agree with Mika Vahakangas that Aristotle was wrong when he stated that “for we must believe, first, that plants exist first for the sake of animals, second, that all the other animals exist for the sake of human beings (Vahakangas, 2001). Unfortunately, this Aristotelian misconception was upheld and even heightened by the Rio Earth Summit when it stated that “human beings are at the centre of concerns for sustainable development (Geneva, WCC, 1992) see pg. 111, JNK Mugambi book. The relationship that should exist between human beings and the environment should be that of mutual interdependence rather than solitary or monarchic existence. The world was created by God not as an assemblage of solitary units but for life together (Migliore, 2004). All the components of the ecosystem are important. Life in the ecosystem is interconnected. All the various components of the ecosystem depend on one another for survival (Holmes, 1998). For example, man’s need for food, shelter, clothing, and other minor needs are provided for by plants and other elements within the ecosystem. In turn, man takes care of the environment to ensure the preservation and protection of the ecosystem. Failure to do so will surely lead to chaos as it is today globally.

What is man’s environmental responsibility? Man’s environmental responsibility has been spelt out in the Bible, even though it has often been misunderstood, especially by Western Christianity, which thought that man’s responsibility is domination of other creatures and the physical environment. As represented by Lynn White Jr. in 1976, Western Christianity has been accused of using the Bible to exploit the resources of the world to the detriment of human survival on earth (Chukwuka, 2011; Migliore, 2014). Man was not given the power to govern the universe, but he was given the power to have dominion (Holmes, 1998). Arising from the supposed relationship between humans and other creations, humans are mere custodians of the land (earth), just as a caretaker is to an estate.

Even though the theology of creation is not sufficiently expounded in the NT but the parable of the landowner in the Gospels sheds light on the responsibility of man as steward of the earth. Matthew captures the parable as follows:

“Hear another parable. There was a householder who planted a vineyard, and set a hedge around it, and dug a wine press in it, and built a tower, and let it out to tenants, and went into another country. When the season of fruit drew near, he sent his servants to the tenants to get his fruits; and the tenants took his servants and beat one, killed another, and stoned another. Again he sent other servants, more than the first, and they did the same to them. Afterward, he sent his son to them, saying, “They will respect my son”. But when the tenants saw the son, they said to themselves, “This is the heir, come, let us kill him, and have his inheritance. And they took him and cast him out of the vineyard, and killed him. When, therefore, the owner of the vineyard comes, what will he do to those tenants?” they said to him, “He will put those wretches to a miserable death, and let out the vineyard to other tenants who will give him the fruits in their seasons”. (Matt.21: 33-41, RSV).

The intent of this parable has important implications for the understanding of human role as the caretaker of the earth. In interpreting this parable from an eco-theological viewpoint, we observe two key words: ownership and stewardship. God, represented by the farmer, owns the land while the caretaker (man) is the tenant. The tenants, out of greed, decided to usurp the authority of the landowner. They were very cruel in handling both the vineyard and the servants the landowner sent to receive some produce from the farm. It is the same cruelty that man is unleashing on the environment. The knowledge and understanding of the roles of human beings on the earth and the right attitude towards environmental responsibility are very germane in the preservation of the earth.

Urbanization and Ecological Implications in Nigeria

Urbanization is defined as the process by which large numbers of people become permanently concentrated in relatively small areas, forming (Editors of Encyclopædia Britannica, 2025). The course of human history has been marked by a process of accelerated urbanization. Historically speaking, humans did not live in a city of more than 100,000 people until the time of classical antiquity, and more cities emerged with a sustained increase in population. Before now, the people in early towns lived quite close to each other. Many factors influence people clustering in a place. Such factors include water supply in the form of rivers, protection, which made people build a fence around themselves against their enemies, arable land for farming, a market, etc.

The idea of modern urbanization was put in place in Africa, especially in Nigeria, by the Colonial masters. In the case of Nigeria, it was the British who laid the foundation for urbanization in Nigeria. The early missionaries came from a temperate region of the world where the weather and climatic conditions were different from those of Africa, which is located in the Tropical region. To minimize the effect of the sun, the white missionaries planted sufficient trees within their neighborhood. The trees were meant to provide shade against the direct heat of the sun and to bring comfort and serenity to the environment. The early missionaries did not discourage Africans from maintaining the natural vegetation. Hence, they lived very close to nature.

However, the post-independent Nigeria did not continue in that trajectory or foundation already laid by the whites. Their understanding of urbanization became faulty. Indiscriminate felling of trees without deliberate efforts to replant became a major characteristic of the post-independent urbanization. This led to an increase in environmental temperature. Also, the

streams and rivers became a refuse dump for urban dwellers as the government was not able to manage the volume of all manner of wastes generated by the citizens, and the situation has remained unabated hitherto.

Additionally, the belief by many Pentecostal Christians that demons live inside some trees and that the branches of some trees have become rendezvous for some occult people, such as witches and wizards, led to the cutting down of many trees within the neighborhood. This was how the idea of treeless towns and cities emerged. Today, the consequences of man's destruction of the natural habitat (ecosystem) in the name of urbanization and civilization are obvious.

The idea that urbanization implies having a town free from everything natural was part of what formed urban development in post-independent Nigeria. The natural environment is required for human wellbeing, but when they are destroyed because of development, it constitutes another problem. Even today, most of the cities and towns in Nigeria are treeless because of this misunderstanding. The first set of humans created by God (Adam and Eve) lived in the garden, an ecosystem where everything needed for human survival was provided. In the name of development, humans cut down trees that ought to enhance oxygen production, only to go back and produce fans and air conditioners to cool the homes and make oxygen available for human comfort. Bush burning to remove debris generated from tree felling results in the pollution of the environment. The urban environment now emits different kinds of gaseous materials and smokes, some of which are injurious to human health.

The natural bodies of water in the cities and urban areas have suffered and continue to suffer from human activities in diverse ways. First, turning the streams and lakes into dump sites results in water pollution. Yet, it is not surprising to still find humans bathing, washing

clothes, and even fetching water for domestic use from waters already polluted. It appears the users of the polluted water do underestimate the health risk that their action constitutes. Aquatic life has been in danger with many species going into extinction as a result of the continuous dumping of refuse in the water bodies in urban. Many rivers in Nigeria are flooded with plastic waste, and amphibians do them and humans, in turn, eat these animals that live in water. Therefore, humans are exposed to all manner of health challenges due to pollution.

One of the challenges faced by urban dwellers in Nigeria, as well as many other countries, is the danger of wind. Hurricane is the highest form of wind, and it can only occur in places where there are sufficient trees to minimize or tame the speed of the wind. The trees can also help to prevent the rapid spread of airborne diseases. The absence of trees in many cities and towns contributes to the rate at which diseases are spread. Exposing the topsoil within the surroundings and in the city centres is a precursor to erosion. If there are no plants to limit the speed with which ground waters are running, it can gravitate into massive erosion, which can bring down buildings, wipe away roads, and even pose danger to human beings. Although experience has made these things abundantly clear yet the initial mistake that urbanization means complete removal of natural vegetation from the cities persists, thereby exposing citizens to unending danger.

Urbanization, as understood by the government and citizens, has brought a lot of environmental and health challenges to both plants, animals, and even humans. How Nigerians understand civilization has done more harm than good. Having polluted most of the water bodies naturally meant to provide drinking water for both plants and animals, everyone is left to provide their water through the sinking of boreholes. There are more diseases in towns than they are in rural places. The villagers enjoy a more serene environment than the city dwellers.

The streams and lakes in the villages are often protected from pollution by members of the public. As a result, the populace still depends on such water bodies for domestic uses.

The Imperative of a Paradigm Shift: Introduction of “Tree Town” Model, a Nature-Based Solution to Environmental Crises.

Let us begin a discussion on the imperative of a tree town model by reflecting once again on the nature and purpose of planting Eden as the natural habitat of the first couple, Adam and Eve.

6.1 Eden: A “Tree Town” biblical model is a conceptual framework for resolving ecological crisis.

And the Lord God planted a garden in Eden, in the east; and there He put the man whom He had formed (Gen. 2:8).

The Garden of Eden was planted by God after He created man. Man was not designed to take abode in the realm of divinity. He was meant to dwell on the earth. God planned and planted a garden and placed the man He had formed. The Hebrew word translated “planted” indicates that the Garden of Eden was a deliberate act of God and was designed to be the most important habitat for man (Achtemeier, 2005). This was the first time it was mentioned that God planted trees. In V. 9, God caused every tree to evolve (grow out) from the ground.

The trees were designed to serve different purposes. Firstly, the trees were made for aesthetics (pleasant to the eyes). Beholding the trees was enough to make a man feel good. It was meant to relax the mind while in the Garden. Secondly, the trees were to serve as food for man. Adam and Eve started as vegetarians. They were made to eat fruits and vegetables for a livelihood. Thirdly, the tree of life was planted in the garden. However, man was not allowed

to eat from the tree of life. The tree must have been for immortality. That is, those who feed on the tree of life will never die. Lastly, the Garden contained the tree of the knowledge of good and evil. This particular tree was also classified as forbidden for man. If man had not fallen, perhaps a time would have come when man would be permitted to eat of those fruits ab initio forbidden.

In addition to planting the Garden of Eden, God created a river with four tributaries to help to water the Garden. The planted trees require daily water to keep them fresh and alive. Each of the river branches is designated to water a particular portion of the Garden City. Watering is important to keep both the plants alive. If the trees were allowed to wither, man is also likely to die off. The trees could survive without the aid of man, but no man can survive without trees. The watering, therefore, was to sustain the life of both the man and the trees. Life in the Garden was symbiotic. That is, the trees were meant to serve man, while the water was meant to help sustain human life.

Inside the Garden were also different natural resources, such as minerals, located in different parts of the Town. The minerals were inserted into the earth, and all are meant to serve man on earth. Now, God brought man into the Garden as soon as he had finished planting the garden. Man was meant to 'till' and to 'keep' it. Two key words are important here. They are the words that contain the primary assignment of man in the Garden. Man is to till the ground and also to keep it. This implies that, while the trees supply food and pleasure for man, man must help ensure that the plants and rivers are maintained. Finally, in verse 16, an instruction comes from God to man. Man was commanded by God to freely eat of every tree in the Garden, but in verse 17, God forbids man to eat from the tree of the knowledge of good and evil.

From the above, one can see that the Garden of Eden was a planned and created town, herein called Tree Town. It was a town that had all that man needed in place. There could not have been any better habitat or environment than that which God, in His wisdom, had designed and created. All that man needed for life was graciously provided in the garden. Man was at liberty to eat and enjoy the bliss of the Garden as long as he obeyed the law of restriction which God gave him. Perhaps, the rivers were also created to provide portable water for man. In turn, man must ensure that the harmony which God created in Eden was maintained. Man was to care for the Garden and to till the soil.

What is called a ‘Tree town model’ is about a town designed to bring man closer to nature as it was from the beginning. The geographical location of Africa requires deliberate effort to make the environment comfortable for humans. One way of doing so is to ensure that something is done to prevent the direct rays of the tropical sun from falling on humans more than necessary. In Africa, value is attached to trees. Man needs trees for rest and comfort; man needs shade provided by trees to park his automobiles, and man needs trees for fresh air. These are in addition to the fact that man needs trees for food, medicine, aesthetics, wind break, etc. Therefore, the conception of a tree town is in the design of a town with trees systematically planted to create what looks like a natural habitat. This is also conceived to invalidate the wrong notion of post-independent town planners that a town should not have natural vegetation left within it. We are aware that “green areas” are created in some big cities in Africa for children born in the cities to have an idea of what a bush looks like. This is good, but it is not sufficient. Man is not meant to pay a visit to places to see what natural vegetation looks like, but is meant to live with nature daily. Man will never survive outside nature. The developed countries, which have removed themselves far away from nature, are paying dearly for their actions.

A tree town model, when fully adopted and widespread, will effectively help in fighting climate change. It will help in reducing environmental heat and temperature. It will also help in the production of oxygen, which will help in keeping human life healthy. Trees have numerous functions that they perform in sustaining human life. If God planted trees and placed man in what the Bible calls the Garden of Eden, it also means that God wants man to continue in that trajectory. Fortunately, tree planting is an easy task that does not require any special expertise. However, there are many fields of study in the sciences that specialize in the natural ecosystem, forestry, and other environmental studies. The right place to begin is in the adoption of the model as a policy of the government. As soon as the policy is crafted, the Ministry of Environment is informed of how the policy can be implemented and maintained. Specialists should be engaged in the actualization of the policy, and a department in the Ministry of Environment should be created to plant and maintain trees in the urban centres. The policy should contain environmental ethics, and punishment or sanctions should be introduced to offenders, especially those who may wish to burn or cut down trees without clearance from the government.

Conclusion

This paper was a theological study of Genesis 2:8-17. The objective is to bring out the fact that the first humans created by God were kept in an environment which has been rightly described as a tree town. The paper also examined and discussed the nature of the habitat where Adam and Eve resided soon after their creation, and discovered that trees were the major component of that environment. The purpose of planting the trees was for food, human comfort, and beauty. The environment provided everything man needed to enjoy his life. Our African forbears understood this secret as a result continued in that trajectory. When the colonial

masters arrived, they also demonstrated that tree planting and retention in the cities were necessary for human comfort. Their environment was that with an abundance of trees.

Unfortunately, the post-colonial land developers had a different understanding of urbanization. To them, for a place to be regarded as a civilized town implies an absence of vegetation. This led to the destruction of the natural habitat in the form of indiscriminate felling of trees, bush burning, land reclamation, building across waterways, dumping of refuse in the flowing streams and other bodies of water, environmental pollution, and so on. The result of this action has contributed immensely to global warming and the resultant climate change, which now threatens human existence. This paper hopes that the invention of a tree town modeled after the Garden of Eden will be a lasting solution to the impact of climate change in Africa. Fortunately, tree planting is not only easy to do but also economical.

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