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THE NIGERIAN TIV CONCEPT OF YA NA ANGBIAN

AS A CORRECTIVE TO THE MISINTERPRETATION OF SUBDUE AND HAVE DOMINION IN GENESIS 1:26

A thesis by

Christopher Terhemen Bologo

Presented to

The faculty of the

Jesuit School of Theology

of Santa Clara University

in partial fulfillment of the

requirements for the degree of

Licentiate in Sacred Theology

Berkeley, California

May, 2023

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Abstract

The Nigerian Tiv Concept of Ya Na Angbian as a Corrective to the misinterpretation of Subdue and have Dominion in Genesis 1:26

A thesis by Christopher Terhemen Bologo

The Tiv people of Nigeria have a social-political philosophy, *Ya na angbian*, which they have been practicing since the pre-colonial period. The social-political philosophy promotes justice, fairness, harmony, and peace through a fair and equitable distribution of what belongs to the Tiv people. This thesis argues that the Ya na angbian concept of the Tiv people can be applied to the relationship between human and non-human beings. This work maintains that it can lead to human beings' care for non-human nature.

The first outstanding conclusion of this research is that the *Ya na angbian* social-political philosophy can correct misunderstanding and misinterpretation of Gen 1:26. The second conclusion is that the command by God to humankind to subdue and have dominion over other creatures is not an invitation to exploit non-human nature but to care for it.

I have concluded that a fair and justice relationship between humans and non-human beings will benefit all God's creatures. An honest and just relationship between humans and non-humans will lead to peace, harmony, and progress. God's command that humans care for other creatures must be kept to protect our planet.

A proper understanding of the fact of humankind's same origin as non-human human beings and the interconnectedness of all creatures will lead to care for nature. The planet is made for all God's creatures and not only human beings.

	Director Signature
Dr. Eduardo Fernández SJ, S.T.D.	Date

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Introduction

Scripture tells us that after God created the world, he looked at it and concluded that everything he had created was good (Gen 1:31). God, after that, decided to entrust to human beings whom he had made in his image and likeness the care of his other creatures. He told humanity to subdue and have dominion over the fish of the sea, the birds of the air, and indeed, every other thing (Gen 1:26). For a long time, however, the words "subdue" and "dominion" were misinterpreted leading to unrestrained exploitation of nature. The exploitative attitude towards nature has continued to this present day. It is true that we Christians occasionally incorrectly interpret the scriptures; nonetheless, in this day and age, we must emphatically reject the idea that humans created in God's image have absolute dominion over other creatures. Biblical texts ought to be read in their context with appropriate interpretations. The wrong understanding and interpretation of subduing and having dominion created the impression that humankind was not a part of creation but outside of it. This has to be corrected.

Many scientists and world leaders, including Pope Francis, have maintained that if the current selfish and domineering attitude towards creation continues, the world may soon be destroyed to a point where it can no longer be retrieved. Everybody needs action at all levels to correct the injustice being done to nature. A positive attitude towards nature is essential for a harmonious coexistence between humans and other creatures for the well-being of all.

¹ Pope Francis, Laudato Si: Care of Our Common Home. (Vatican City: Libreria Editrice, 2015) 66-67.

A model for this harmonious coexistence is captured in a Tiv social and political philosophy. Long before colonialism, the Tiv people of Benue state in Nigeria developed the socio-political philosophy "Ya Na Angbian." Which means "Eat and give to brother." This philosophy ensures that positions in the political and traditional arenas are shared according to the different clans in Tiv land now and then. This practice is an effort to ensure that one person or family does not dominate others. This philosophy emerged to promote justice and fairness to ensure peace in the community. The Tiv people knew that if things were left to chance, some people and clans would subdue and dominate others or try to do so, leading to injustice and civil unrest in the community. It was a deliberate and calculated effort at harmonious relations. The Tiv people have been organizing themselves according to this philosophy up till the present day. It is a popular philosophy invoked at all meetings meant for sharing positions and goods.

Incidentally, Nigeria has recently organized its political life along this spirit of *ya na angbian*. In the last few years, notably, since the democratic government returned to the country, Nigeria has been organizing herself based on rotation and federal or state character. Like the Tiv philosophy of *ya na angbian*, sharing political offices in Nigeria is meant to treat all sections of the country justly to avoid tension and violent reactions from those who may feel unjustly treated.³ My audience is primarily people familiar with the Tiv social-political philosophy, but others can also learn from it. If the *ya na angbian* socio-political philosophy is applied to our relationship with nature, there will be

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² Nicholas Tughhemba, *Principle of power-sharing Ya na angbian in Tiv social and political philosophy*. https://scolar.googleusercontent.com/scolar.

³ See Abdul Rauf Ambali and Ahmed Letswa Mohammed, "Sustainable Democracy and Political Domination: A Rotational Presidency among Nigerian Ethnic Groups," In Journal of Administrative Science Vol. 13,1 (2016).

harmony between human beings and nature. It will help Christians and non-Christians to be faithful stewards of creation as God intended when he commanded humanity to subdue and have dominion over other creatures. God's command to humanity is to have a caring relationship with nature for a more peaceful and beneficial co-existence.

SCOPE AND NATURE

This thesis will be restricted to assessing how the Tiv social-political philosophy of *ya na angbian* can be applied to our relationship with non-human creation in reference to God's biblical command to humans to subdue and have dominion over non-human creatures. When applied to other creatures, the Tiv cultural wisdom agrees with the developing notion in the church of creation's interconnectedness. I will demonstrate that treating non-human nature justly will engender harmony necessary for the well-being of the entire creation. Moreso, I will put the theological and cultural concepts of kinship into dialogue.

THESIS STATEMENT

I argue that local wisdom, the Tiv socio-political philosophy of *ya na angbian*, shows that we can treat non-human creation justly for a harmonious co-existence of God's creation. I will further demonstrate that this understanding is akin to the Christian understanding of a kinship relationship between humans and the other creation.

METHODOLOGY

I will use a contextual theological method to bring local cultural wisdom to bear on a theological challenge: the misperception of our relationship with the earth. I will draw from Steven Bevans' anthropological contextual theological model, one who searches for gospel values in the culture, to establish a new model for interdependence with the rest of creation and to move us to care for the earth.

SIGNIFICANCE

This thesis attempts to contribute to people's perception of their ecological relationship from theological and community wisdom perspectives. There is a growing interest in the theological connection to our environment and the need to arrest the plundering of nature. This thesis argues that awareness about God is the loving source of all humans and other beings. Furthermore, the aim of this thesis is to help us understand that God's command for humans to subdue and have dominion over other beings is not a command to exploit nature but to care for it and develop a loving harmony with it. Many Africans like Abosede Babatunde, have written on ecological issues, but few of them, demonstrate the theological connection.⁴ This work will attempt to convince readers that being just and compassionate to non-human nature is a way to promote the well-being of God's entire creation. This thesis will help bring out the interconnectedness of all God's creatures and invite a sense of interdependence that leads to love and care for nature.

CHAPTER OUTLINE

CHAPTER I – A Call to Conversion

I will extend an invitation to conversion after stating the problem of our maltreatment of creation, partly owing to the misinterpretation of God's command to subdue and have dominion over creation, Gen.1:26. My invitation to the conversion will be based on cultural and theological grounds and will be addressed to Nigerian Catholics. After that, I

⁴ Abosede Babatunde, "Oil Pollution and Water Conflicts in the riverine communities in Nigeria's Niger Delta Region: Challenges for and Elements of Problem-Solving Strategies," *Journal of Contemporary African Studies* 38 no. 2 (2020).

will clarify the major concepts I will use in this work. They include creation, subjugation, dominion, *Ya na angbian*, conversion, and kinship. I will also briefly explore the history of the Tiv people and how Nigeria is developing a philosophy similar to the *Ya na agbian* philosophy of the Tiv people.

CHAPTER 2 – THE Consequences of a Great Misunderstanding (Gen. 1:26)

I will look at human activities toward the environment, such as indiscriminate waste disposal, heavy use of fossil fuel, careless handling of water resources, destruction of biodiversity, deforestation, and the role of technology in environmental degradation. I will also look at the poor people impacted primarily by nature's destruction. I will point out the positive traits but dwell on the extensive destructive exploits of human beings toward the environment. My exploits here will focus on how Nigerians relate to our environment.

CHAPTER 3 – A Turn Toward Creation: Cultural Resources (Kinship)

I will demonstrate how if applied to the environment, the Tiv communal social-political philosophy and wisdom *ya an angbian* will help Christians and others to relate better to creation. This collective wisdom has helped the Tiv people maintain some level of justice and fairness that guarantees harmony, peace, and development.

CHAPTER 4 – A Turn Toward Creation: Theological Resources

I will look at creation in both the Old and New Testaments. Apart from the bible, I will also explore how Tradition, the magisterium, and recent experiences in the church have

impacted the care of nature. In particular, I will dwell more on Pope Francis' *Laudato Si's* positive influence on care for creation. Pope Francis, in this encyclical, brings all creation's interdependence into focus. He calls for a new vision of God's entire creation living in a sublime community of justice, harmony, and peace.

Conclusion

In conclusion, I will reflect on how cultural and theological understandings enrich each other. I will also mention some critical questions that surfaced in this research and areas that need further exploration.

Chapter One

A Call to Conversion

In this chapter, I will look at the world's ecological crisis and how the misinterpretation of Genesis 1:26 (Then God said: "Let us make human beings in our image, after our likeness. Let them have dominion over the fish of the sea, the birds of the air, the tame animals, all the wild animals, and all the creatures that crawl on the earth.") has contributed to the problem. I will call for conversion, considering that what we do to the Earth is sinful. I will also briefly state the philosophical tenets of the Tiv tribe in Nigeria and their sharing principle of *Ya na angbian*, which literary means eat and give siblings, and calls for good neighborliness among the Tiv people since they have the same ancestor. I will also summarily point out the evolving agitation and spirit of rotating political power in Nigeria's political dispensation in recent years along the lines of *ya na angbian*.

Keen observers all over the world agree that the world is going through an ecological crisis. Humankind's uncontrolled activities are destroying our beautiful planet. One does not need to go far to witness the devastation to the natural environment and the Earth's other inhabitants. Everywhere, there are signs of destruction. We are seeing changes in our climate. "Some forms of pollution are part of people's daily experience. Exposure to atmospheric pollutants produces a broad spectrum of health hazards, especially for the poor, and causes millions of premature deaths. People take sick, for example, from breathing high levels of smoke from fuels used in cooking or heating." Other signs of Earth's destruction are diminishing resources like water, trees, and species.

¹ The Catholic Study Bible, eds, Donald Senior, John J. Collins, and Mary Ann Getty (New York: Oxford University Press, 2013). This is the Bible edition I will use throughout this thesis except otherwise stated.

² Pope Francis, *Laudato Si: Care of Our Common Home* (Vatican City: Libreria Editrice, 2015), 20.

"One particularly serious problem is the quality of water available to the poor. Every day, unsafe water results in many deaths and the spread of water-related diseases, including those caused by microorganisms and chemical substances." Water is vital because of its indispensable role in human life and the aquatic ecosystem.

Furthermore, regarding biodiversity, various earth species are being destroyed daily, mainly to satisfy our greed and immediate needs. "The earth's resources are also being plundered because of shortsighted approaches to the economy, commerce and production. The loss of forests and woodlands entails the loss of species which may constitute extremely important resources in the future not only for food but also for curing diseases and other uses." ⁴This non-human destruction affects people because human beings are also part of nature. The effect of the destruction of non-human nature on human beings is the reason Pope Francis says that "Today, however, we have to realize that a true ecological approach always becomes a social approach; it must integrate questions of justice in debates on the environment, so as to hear the cry of the earth and the cry of the poor." The destruction of the earth harms every creature.

Daily, we see changes in temperatures around the world. The changes may vary from one region to another, but signs of climate crises are everywhere. There are fire outbreaks, rising sea levels, desertification, and floods. "Winters are getting warmer; trees and flowers are blooming earlier in Spring. Summer heatwaves are becoming longer and more severe, glaciers are melting, bird migration patterns are changing, and tropical

³ Francis, *Laudato* Si, 29.

⁴ Francis. Laudato Si. 32.

⁵ Francis. *Laudato* Si. 49.

diseases are becoming more prevalent at higher latitudes."⁶ All these signs around us prove that our climate is changing. The changing environment has been increasing faster in recent decades. "The period from 2014 to 2016 marked the first time the global temperature record was exceeded in three consecutive years, with each year breaking the record set in the previous year."⁷ A 136-year record of global surface temperature shows that 17 of the 18 warmest years occurred within the last 22 years.⁸

Besides scientific proof of the rise in temperatures, scientists have also shown evidence that the changing climate is connected to greenhouse gas emissions arising from human activities. Pope Francis, in his encyclical *Laudato Si*, affirms the scientific findings. "A very solid scientific consensus indicates that we are presently witnessing a disturbing warming of the climate system. In recent decades this warming has been accompanied by a constant rise in the sea level and, it would appear, by an increase of extreme weather events." ¹⁰

He maintains that climate change is a global problem with profound implications environmentally, politically, economically, socially, and for the supply of goods and services. Climate change is a sign of the day that must be addressed and considered in proclaiming the Gospel.

Understanding Genesis 1:26

For sure, Genesis.1:26 is contentious in understanding the biblical and environmental concerns. Many people, like Lynn White Jr., see the verse as a sign that the biblical

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⁶ Robin Leichenko and Karen O'Brien, "Scientific Evidence of Climate Change," in *Climate and Society: Transforming the Future* (Medford, Mass: Polity, 2019), 19-29.

⁷ Leichenko and O'Brien, "Scientific Evidence of Climate Change." 20.

⁸ Leichenko and O'Brien, "Scientific Evidence of Climate Change," 20

⁹ Leichenko and O'Brien. "Scientific Evidence of Climate Change." 27.

¹⁰ Francis, *Laudato Si*, 23.

tradition is unfavorable to our ecological crisis. In 1967, White, in his article "The Historical Roots of Our Ecological Crisis," blamed the Judeo-Christian Tradition, particularly Christianity, for promoting anthropocentric behavior and environmentally harmful attitudes. The creation account in Genesis, he said, gave the impression that all other creatures were created for use by humankind anyhow they wanted. White wrote:

Christianity inherited from Judaism not only a concept of time as nonrepetitive and linear but also a striking story of creation. By gradual stages, a loving and all-powerful God had created light and darkness, the heavenly bodies, the earth, and all its plants, animals, birds, and fishes. Finally, God had created Adam and, as an afterthought, Eve to keep man from being lonely. Man named all the animals, thus establishing his dominance over them. God planned all of this explicitly for man's benefit and rule: no item in the physical creation had any purpose save to serve man's purposes. And, although man's body is made of clay, he is not simply part of nature: he is made in God's image. 11

White maintained that Christianity is the most anthropocentric religion the world has seen, especially in its Western form. He said Western Christianity had shaped science and technology, the main drivers of environmental degradation. "Modern Western science was cast in a matrix of Christian theology. The dynamism of religious devotion, shaped by Judeo-Christian dogma of Creation, gave it impetus." White questioned what Christianity taught people about their relationship with the environment, emphasizing that: "What people do about their ecology depends on what they think about themselves in relation to things around them. Human ecology is deeply conditioned by beliefs about nature and destiny-that is, by religion." Rightly or wrongly, White believed that

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¹¹ Lynn White Jr., "The Historical Roots of Our Ecological Crisis," *American Association for the Advancement of Sciences* 155 (1967), 1205.

¹²White, "The Historical Roots of Our Ecological Crisis," 1206.

¹³ White, "The Historical Roots of Our Ecological Crisis," 1206.

Christian Tradition, through misinterpretation of biblical texts such as Genesis 1:26, had contributed to the mentality of plundering the earth.

Furthermore, White held that science and technology could not solve our ecological problems. He doubted the disastrous ecological backlash could be avoided by applying more science and technology. "Our science and technology have grown out of Christian attitudes towards man's relation to nature which are almost universally held not only by Christians and neo-Christians but also by those who fondly regard themselves post-Christians." Instead, he says that since religion is the root of our ecological crisis, only faith can bring about the remedy. "What we do about ecology depends on our ideas of the man-nature relationship. More science and more technology are not going to get us out of the present ecological crisis until we find a new religion, or rethink our old one." He advocated a new relationship between humankind and nature to repair the damage that has been done to the earth and is continuing.

Despite his criticism of the Christian tradition in connection with the care of nature, White praised St. Francis of Assisi as a shining light in the area of a positive attitude towards nature. White Stated: "The greatest spiritual revolutionary in Western history, saint Francis, proposed what he thought was an alternative Christian view of nature and man's relation to it: he tried to substitute the idea of the equality of creatures, including man, for the idea of man's limitless rule of creation."¹⁶

He proposed St. Francis as the patron Saint for ecologists.

¹⁴ White, "The Historical Roots of Our Ecological Crisis," 1206.

¹⁵ White, "The Historical Roots of Our Ecological Crisis," 1206.

¹⁶ White, "The Historical Roots of Our Ecological Crisis," 1206.

Some people like White give the impression of limited understanding and interpretation of the bible when they blanketly say several scriptural texts, in particular Genesis 1:26, laid the foundation for the destruction of the earth. This is not to say there has not been a misinterpretation of such bible texts for selfish reasons. A deep dive by some people have revealed that it is possible to recover and retrieve the "Bible's ecological wisdom, that has been hidden and obscured by interpreters who failed to see or attend to such dimensions of the text." The recovery approach entails rescuing specific biblical texts from the accusation that they promote and sustain an anthropological worldview that encourages violent activities of the earth. Genesis 1:26 is one such text that gives the impression that man has the authority to dominate and subdue non-human nature literally.

However, in recovering and retrieving Genesis 1:26, many people now "have maintained that this text does not have in view any kind of aggressive technological domination of the earth. Positively, it is often argued that the kind of role the Bible does prescribe for humanity in relation to creation is one of "stewardship"- a responsible, caring, and sustaining role, not one of exploitation or thoughtless mismanagement."

¹⁸Arguments concerning other texts are also applied to demonstrate that re-thinking biblical texts in the light of current experiences are critical. For example, "the most common strategy with regard to the eschatological texts such as 2 Peter 3:10-13 has been to argue that these texts envisage not destruction but the transformation of the earth." ¹⁹The strategy for recovery is an excellent way of re-imagining and interpreting such

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¹⁷ David Horrell, *The Bible, and the Environment: Towards a Critical Ecological Biblical Theology* (New York: Routledge Publishing, 2014), 6.

¹⁸ Horrell, The Bible, and the Environment: Towards a Critical Ecological Biblical Theology. 12.

¹⁹ Horrell, The Bible, and the Environment: Towards a Critical Ecological Biblical Theology, 12

biblical texts as Genesis 1:26 that the Bible indeed is optimistic about the environment and discourages us against earth plundering. Later in this chapter, I will mention other translations that do not suggest the misuse of other creatures.

Due to the current level of ecological crisis, we should always read the Bible with an environmental eye. Approaching the Bible with a preconceived notion that it is not eco-friendly does harm our understanding of how the bible values the earth. "If the story of the creation of humans in Gen. 26-30 is removed from the text, the resulting narrative is a consistent story about Earth that affirms the intrinsic value of Earth." Furthermore, Norman Habel says, "it is my contention after reading the text with ecojustice eyes, that Genesis 1 is about the origin, appearance, and activating of Earth, albeit within the context of a framework about creating Earth and sky. At the story's heart is a 'geophany', a manifestation or revelation of Earth."

Man's entry into this excellent earth creation story poses a significant risk in understanding and devaluing the earth story.

In his encyclical *Laudato Si*, Pope Francis maintains that the creation accounts in Genesis hold intense teachings concerning human existence and its historical reality.

Francis maintains:

They suggest that human life is grounded in three fundamental and closely intertwined relationships: with God, with our neighbor and with the earth itself. According to the bible, these three vital relationships have been broken, both outwardly and within us. This rupture is sin. The harmony between the Creator, humanity and creation as a whole was disrupted by our presuming to take the place of God and refusing to acknowledge our creaturely limitations. This in turn distorted our mandate to "have dominion" over the earth (Gen 1:28), to "till it and

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²⁰ Norman Habel and Shirly Wurst, *The Earth History in Genesis* (England: Sheffield press, 200,) 35.

²¹ Habel and Wurst, *The Earth History in Genesis*, 35.

keep it" (Gen 2:15. As a result, the originally harmonious relationship between human beings and nature became conflictual (cf. Gen 3:17-19).²²

Pope Francis continues that the harmony Saint Francis of Assisi experienced with all creatures was viewed as healing of that rupture while stating that "Saint Bonaventure held that, through universal reconciliation with every creature, Saint Francis in some way returned to the state of original innocence." Unfortunately, this is a far cry from the current situation, where sin manifests in attacks on nature.

²² Francis, *Laudato Si*, 66.

²³ Francis, *Laudato Si*, 66.

A Call for a Change of Attitude Towards Non-human Nature

We will continue to have ecological crises until we stop seeing non-human nature as existing purely to save humankind's needs. Pope Francis warns:

It is not enough, however, to think of different species merely as potential "resources" to be exploited, while overlooking the fact that they have value in themselves. Each year sees the disappearance of thousands of plant and animal species which we will never know, which our children will never see, because they have been lost forever. The great majority became extinct for reasons related to human activity. Because of us, thousands of species will no longer give glory to God by their very existence, nor convey their message to us. We have no such right.²⁴

It is becoming more evident that our sinful attitude toward non-human nature must be corrected. There has to be a conscious effort on the part of all of us to have a moral duty to respond to the earth crisis, or all of us will be consumed by the destruction.

For Pope Francis and theologians like Elizabeth Johnson, our attitude to the environment is sinful. "This ongoing destruction of God's good earth, when perceived through the lens of theology, bears the mark of deep sinfulness."²⁵ Therefore, she calls for internal conversion to appreciate and care for the earth.

In the light of the devastation, the turn to the heaves and the earth bears the mark of genuine conversion of mind and heart, with repentance for the lack of love and the violence visited on the planet. As we turn, we will be looking for thought patterns that will transform our species-centeredness and enable us to grant not just instrumental worth but intrinsic value to the natural world. This is a condition for the possibility of extending vigorous moral consideration to the whole earth, now under threat. ²⁶

²⁵ Elizabeth Johnson, "Turn to the Heavens and the Earth: Retrieval of the Cosmos in Theology," *Catholic Theological Society of America* 51 (1996), 9.

²⁴ Francis, *Laudato S*i, 33.

²⁶ Johnson, "Turn to the Heavens and the Earth," 9.

Johnson has challenged us to embrace life systems and the various species to guarantee a deep communion in life for all.

Johnson believes that much of the harm done to the planet is speeding up and cannot be reversed despite the goodwill and laws being implemented. She warns that if the massive damage continues, "life will continue to dim on this planet and misery to multiply" while cautioning that "undoing the earth like this is an act of violence against future generations of all species." There are many decisions to make, like the constraint of consumption, restraint of population growth, and evolution of industries and trade, in addition to political and ethical settlements. Still, Johnson believes that the best approach to halting earth damage is religious. "Undergirding all of these is a religious matter. The Creator Spirit's dynamic activity, as we have seen, issues in abundance, diversity, interrelatedness, and manifest possibilities. Human beings violate these patterns by thoughtless or willful harm to the living earth that reduces diversity, breaks up relatedness, and cuts off future possibilities." Therefore, Johnson maintains that only conversion can start to heal the damage done to the earth; a transformation in the biblical sense of *metanoia*, she says. 30

On his part, Pope Francis believes that we Christians ought to do more than others in embracing the beauty of other creatures by protecting them while advising that,

If the simple fact of being human moves people to care for the environment of which they are a part, Christians in their turn "realize that their responsibility within creation, and their duty toward nature and the creator, are an essential part

²⁷ Johnson, "Turn to the Heavens and the Earth," 9.

²⁸ Johnson, "Turn to the Heavens and the Earth," 9.

²⁹ Johnson, "Turn to the Heavens and the Earth," 9.

³⁰ Johnson, "Turn to the Heavens and the Earth," 9.

of their faith." It is good for humanity and the world at large when believers better recognize the ecological commitments which stem from our convictions.³¹

Francis explains that because humans are created in God's image and likeness does not mean God is not the source of other beings. "Our insistence that each human being is an image of God should not make us overlook the fact that each creature has its own purpose. None is superfluous. The entire material universe speaks of God's love, his boundless affection for us. Soil, water, mountains; everything is, as it were, a caress of God."³² Frances declares.

Indeed, it is evident, therefore, that the call to action in care of the earth is more than a mere call but a moral imperative, particularly for us Catholics.

Pope Francis has advocated for ecological education and spirituality in light of the need to redress our steps in our sinful attitude to the earth. Francis states:

Good education plants seeds when we are young, and these continue to bear fruit throughout life. Here, though, I would stress the great importance of the family, which is "the place in which life – the gift of God – can be properly welcomed and protected against the many attacks to which it is exposed, and can develop in accordance with what constitutes authentic human growth. In the face of the so-called culture of death, the family is the heart of the culture of life." In the family we first learn how to show love and respect for life; we are taught the proper use of things, order, and cleanliness, respect for the local ecosystem, and care for all creatures. ³³

Suppose we have the right attitude and train younger ones to imbibe the culture of love for non-human nature over time. A more harmonious relationship among God's creatures will evolve in that case.

Furthermore, he stresses the relevance of aesthetic education and maintaining a healthy environment "By learning to see and appreciate beauty, we learn to reject self-

³² Francis, Laudato Si, 84.

³¹ Francis, *Laudato Si*, 64.

³³ Francis, Laudato Si,213.

interested pragmatism. If someone has not learned to stop and admire something beautiful, we should not be surprised if they treat everything as an object to be used and abused without scruple."³⁴

To bring about change, we must be aware that certain particular ways of seeing things affect our behavior.

Francis believes we can be motivated by spirituality to a more profound and committed concern to protect non-human nature. He says that doctrine alone cannot do it but rather an interior disposition. This lofty commitment cannot be sustained by doctrine alone, without a spirituality capable of inspiring us, without an "interior impulse which encourages, motivates, nourishes and gives meaning to our individual and communal activity." He admits that Christians have not taken advantage of the vast treasures of our faith to build a relationship with non-human nature. "Admittedly, Christians have not always appropriated and developed the spiritual treasures bestowed by God upon the Church, where the life of the spirit is not dissociated from the body or from nature or from worldly realities, but lived in and with them, in communion with all that surrounds us." Over the centuries, building a rigid culture of a hard wall between the spiritual and material world has affected how we view and relate to non-human nature.

The Pope calls on various social groups and political institutions to help raise awareness about the current global earth crisis. Above all, he invites the Christian communities to play unique roles in ecological education.

It is my hope that our seminaries and houses of formation will provide an education in responsible simplicity of life, in grateful contemplation of God's

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³⁴ Francis, Laudato Si, 215.

³⁵ Francis. Laudato Si. 216.

³⁶ Francis, *Laudato Si*, 216.

world, and in concern for the needs of the poor and the protection of the environment. Because the stakes are so high, we need institutions empowered to impose penalties for damage inflicted on the environment. But we also need the personal qualities of self-control and willingness to learn from one another.³⁷ The effort to redress ecological damage already done is a collective responsibility, particularly by Christian communities.

Why the Call for a Change of Heart

Earth is a community of interconnected living beings mutually dependent on each other for life and survival. Everything God has created is inextricably connected, and we must turn to nature to understand ourselves fully.

This interconnectedness provides the basis for responsible participation in, appreciation of, and care for nature and for Earth which sustains and nourishes us. Often in the past we have looked upon ourselves as separate from -and above-Nature and the cosmos, immune and disconnected from its laws and constraints. But we now know without a show of doubt that we are radically dependent upon – in fact we are part of – Nature and the Universe. Without Nature and the Universe – without cosmic, chemical and biological evolution – the galaxies and stars, and all that go with them, our Sun, our Earth and we ourselves would not exist. Furthermore, everything about us is linked in many ways with – and dependent upon the characteristics of stars, and the organisms which make up our biological environment and constitute our biological history.³⁸

Therefore, a turn to nature and the cosmos is essential to adequately understand ourselves and the world in relation to one another, nature, and God. While speaking on theology's contribution to the religious practice of mercy and justice for the threatened earth, Elizabeth Johnson insisted that "we need to complete our recent anthropological turns by turning to the entire interconnected community of life and network of life-systems in which the human race is embedded, all of which has its own intrinsic value before

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³⁷ Francis, Laudato Si, 214.

³⁸ William Stoeger, "Our Intimate Links with the Universe and Nature: The View from Cosmology and Astrobiology," *Theological Studies* 80.4 (1984), 1.

God."³⁹ Nature is not averse or something unconnected to us; instead, it is something we are all a part of and belong to.

Thomas Berry adds his voice to this fact thus:

In reality, there is a single integral community of the Earth that includes all its component members whether human or other than human. In this community, every being has its role to fulfill, its own dignity, its inner spontaneity. . . Every being enters into communion with other beings. This capacity for relatedness, for presence to other beings, for spontaneity in action, is a capacity possessed by every mode of being throughout the entire universe. ⁴⁰

The awareness and humility to see ourselves as part of the earth are necessary for caring for nature. Still, we must also realize that nature is in and on us.

Symbiosis is especially common between humans and microbes. In the last half-century, microbiologists have discovered that we each have more than a thousand distinct species of microbes living on us and in us. Yes, though you may think of yourself as a separate individual, belonging to the species *Homo sapiens*, your body is a swirling, pulsing ecosystem filled with a wide assortment of creatures. Most of these micro-animals are bacteria, so tiny that a thousand fit on the head of a pin. ⁴¹

Bacteria have existed for almost four billion years and define life's existence. Lynn Margulis and Dorion Sagan maintain that any living organism is either a bacterium itself or a descendant of a bacterium in one way or another. We, humans, live on a planet run by invisible microbes. They set the stage for the evolution of multicellular life. We are simply one with the earth, so our attitudes should authentically flow from this reality.

In addition, the other creatures have a right to rest. Sabbath has been made to appear as though only humans need rest over the centuries. "Resting on God's part means

³⁹ Stoeger, "Our Intimate Links with the Universe and Nature," 2.

⁴⁰ Christopher Uhl and Jennifer Anderson, *Developing Ecological Consciousness* (New York: Rowman and Littlefield, 2013), 23.

⁴¹ Uhl and Anderson, *Developing Ecological Consciousness*, 32.

⁴² Uhl and Anderson, *Developing Ecological Consciousness*, 32.

⁴³ Uhl and Anderson, *Developing Ecological Consciousness*, 33.

giving time and space over to other creatures to be what they were created to be; God will be present and active but not be invested in the control of their lives. God will rest and let them be. God will "sit back" as it were and let the creatures function with all the capabilities they have been given. God rests so that the creatures can thrive." Resting by God demonstrates that God believes in the power and will of his creatures and does not put them on a leash but allows them to authentically be other than God. "God does not create merely by calling something into existence, or by setting something afoot. In a more profound sense he 'creates' by letting-be, by making room, and by withdrawing himself." ⁴⁵Jurgen Moltmann says.

Sabbath-Keeping is not conceived simply in terms of human rest. The Sinai commandment makes clear that the Sabbath is as much for (domestic) animals as it is for humans (Exod. 20:8-11; Deut. 5:12-15). The laws regarding sabbatical and Jubilee years show that land too must have its Sabbaths, (see Lev 25: 1-24), the neglect of which would have an adverse effect on the land (Lev 26: 27-45). Moreover, Israel is to model that weekly pattern for others, these texts recognize that only by keeping the Sabbath would creatures be attuned to the creation that God intended. Sabbath-Keeping is an act of creation-keeping with cosmic implications; if Sabbath is not kept, that neglect can have adverse effects upon the entire creation.⁴⁶

Pope Francis says, "Along these same lines, rest on the seventh day is meant not only for human beings, but also so "that your ox and your donkey may have rest" (Ex 23:12). Clearly, the Bible has no place for a tyrannical anthropocentrism unconcerned for other creatures." In the final analysis, the implication of God taking a rest means that he does not dominate his creatures but allows them to be genuinely free. Our preoccupation with

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⁴⁴ Terence Fretheim, *God and World in the Old Testament* (Nashville: Abingdon, 2005), 62.

⁴⁵ Fretheim, God and World on the Old Testament, 62.

⁴⁶ Fretheim. God and World on the Old Testament, 62-62.

⁴⁷ Francis, *Laudato Si*, 68.

literally dominating the earth, sometimes based on the misinterpretation of the Bible, has led to severe consequences.

Creation

By creation, I am speaking of God's process of bringing into existence the entire universe. I agree that the big bang caused the world to exist from a scientific point of view, but it does not negate God as the source of creation. The first and second Genesis have accounts of how God created heaven and earth. "In the beginning, when God created the heavens and the earth and the earth was without form or shape, with darkness over the abyss and a mighty wind sweeping over the waters. Then God said: Let there be light and there was light" (Gen 1:1-3). 48

Additionally, the second account of creation states:

This is the story of the heavens and the earth at their creation. When the Lord God made the earth and the heavens – there was no field shrub on earth and no grass of the field had sprouted, for the Lord God had sent no rain upon the earth and there was no man to till the ground, but a stream was welling up out of the earth and watering all the surface of the ground – the Lord God formed the man out of the dust of the ground and blew into his nostrils the breath of life, and the man became living being (Gen 2:1-7)).⁴⁹

Although two separate myths, the two accounts of creation in Genesis 1 and Genesis 2 convey the same meaning, namely, that God created the universe. Christians believe that God did not only create the universe but continues to sustain it.

On the other hand, science gives us another account of how the Universe and life came into existence. While using the laws of physics, modern-day scientists have traced the birth of the Universe Back to fourteen billion years ago. Astronomers explain that the

⁴⁸ Catholic Study Bible *Third Edition*, (Editors: Donald Senior, John J. Collins, Mary Ann Getty. (Oxford: University Press, 2016).

⁴⁹ Catholic Study Bible, *Third Edition*.

universe started as a single dot, then expanded and stretched to grow as large as it is currently and still stretching. The explanation, by scientists, of how the universe started is called the Big Bang.

Scientists don't simply "run the movie backward" and then accept that the universe began from a big bang fourteen billion years ago. They search for corroborating evidence. For example, here on Earth, they do experiments using high-energy particle accelerators to understand what happens to matter at excruciatingly high temperatures. Then, using this information, they can calculate the nature of the early universe that emerged from the big bang. These calculations predict that the matter that formed from the big bang would have consisted of hydrogen and helium in a ratio of three to one, which is, in fact, the material makeup of the universe today as determined by astrophysicists.⁵⁰

Christopher Uhl and Jennifer Anderson maintain: "The big bang isn't lost far back in time; planet Earth receives light that was emitted when the universe was first forming. The big bang is all around us and in us!" ⁵¹Science has helped humankind understand how the universe and human life began.

However, the question that keeps agitating the minds of so many people is whether the big bang cosmology is in conflict with divine creation. The simple answer is no! Quantum cosmological scenarios or theories are not alternatives to divine creation conceived as *creatio ex nihilo*. Besides, *creatio ex nihilo* is not an alternative to quantum cosmological processes that scientifically explain the universe's origin.

Thus, quantum cosmology and *creatio ex nihilo* contribute deeply complementary and consonant levels of understanding of the reality in which we are immersed. Exactly the same point can be applied to divine creation and biological evolution - they are not exclusive alternatives, but rather complementary accounts, linking the ultimate ground of being and order with their elaboration in concrete structures, dynamisms, processes and transitions. ⁵²

⁵² William Stoeger, "Is Big Bang Cosmology in Conflict with Divine Creation?" This article is a highly

⁵⁰ Uhl and Anderson, Developing Ecological Consciousness, 8.

⁵¹ Uhl and Anderson, Developing Ecological Consciousness, 8.

If properly understood and put in the proper perspective, there will be no conflict between science and religion in explaining the universe's origins. They both complement each other.

Furthermore, the revelations of modern science do not contradict or undermine our faith in God; instead, they expand and deepen our spirituality.

For example, rather than understanding God as a *being* – a noun – you could choose to understand God as more akin to a verb – an action process – for example, God as the animating force that infuses all beings: human being, animal being, plant being, atmospheric being, geologic being. This new way of seeing sets aside the old idea that God created the world for us, challenging us to consider, instead, that humans have been made for the world. In other words, *it is not the world that belongs to us*, but *we who belong to the world*. This shift in worldview presents a profoundly humbling challenge to our human identity – one that promotes connection rather than separation, peace rather than war, respect rather than abuse, generosity rather than greed.⁵³

Therefore, religion and science are not antipathetic. Instead, they can mutually enhance our understanding of the universe's origin and our place in it.

Have Dominion and Subdue

Dominion comes from the Hebrew word *radah* while subdue comes from the Hebrew word *kabash*. Some authors maintain that these two Hebrew words suggest hostility and bringing into bondage. ⁵⁴ Habel states, "There is nothing gentle about the verb *Kabash*" – subdue. However, scholars also hold that such grammatical instances as conquer, domination rape, hostility, and enslavement may or may not have had

appeared in Creation and the God of Abraham edited by Janeth Soskice, David B. Burrell, Carlo Cogliati, and William R. Stoeger, forthcoming from Cambridge University Press. 181.

⁵³ Uhl and Anderson, Developing Ecological Consciousness, 17

⁵⁴ Antoinette Collins, *Subdue and Conquer: An Ecological Perspective on Genesis 1:28*, (ed. Mary L. Colo; Creation in Groaning; Collegeville, Minnesota: Liturgical Press, 2013) 20.

interpretative meaning when they were written, and now, humankind's aggressive behavior still causes our conquering of the earth. ⁵⁵

Early translations of the Hebrew text into Greek, Aramaic, and Latin provide us with a unique understanding of *Kabash* and *radah*. The Greek *archete*, used to translate the Hebrew *radah* (have dominion over), means to regulate "or to rule over and does not have the same violent tone of the Hebrew. Rulers can be benign or tyrannical, but at least with the use of this Greek word, there exists the possibility of a less destructively powerful reign."

The Aramaic Targums or Targumium are beneficial since they offer a translation and interpretation.

This particular translation has for the Hebrew *kabash* the verb *takaph*- "to seize, to overpower" -which does not sound particularly temperate. The noun *tekoph*, based on the verb *takaph*, means "strength, power, help, protection" and has an impression of "care." For *radah*, Targum Pseudo Jonathan has *shalat*, "to handle, to rule, to have power over," suggesting a more benign "ruling." Moreover, the Palestinian Talmud (PT) also uses *shalat* in the sense of power of attorney over another's property. Again, a gentler interpretation all around. There is a developing and /or softening of the Hebrew.⁵⁷

In the Latin of the Vulgate, for *kabash* (subdue), it uses *subiicite*, which means to throw under, place under, set up, make subject, submit, or ascribe. While for *radah* (have dominion), it uses *dominamini*, which means to be Lord, to reign, to govern, to rule, to command in a godly way.⁵⁸

Dominamini could suggest Godlikeness (Dominus-"the Lord") as verse 26 maintains: "Then God said: 'Let us make humankind in our image, . . . in the image of God he created them; male and female he created them" (Gen 1:26). Made in God's image, we must therefore be Godlike. Here is a similar

⁵⁶ Collins, "Subdue and Conquer," 24.

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⁵⁵ Collins, "Subdue and Conquer," 21.

⁵⁷ Collins, "Subdue and Conquer," 25-26.

⁵⁸ Collins, "Subdue and Conquer," 27.

interpretation to the Greek with its use of *Katakyrieo*, *Kyrios* ("Lord") and *archete*, *arkon* ("ruler").⁵⁹

It can be seen that the Greek, Aramaic, and Latin translations of have dominion and Subdue show restraint in the strident perception of the Hebrew language, "a moderation often lost not only in translations but also in practice. The necessity to shift from an anthropocentric perspective to planetary awareness is to be encouraged." Radah -have dominion, and kabash-subdue, have supported the blistering maltreatment and careless exploitation of the earth for many centuries. But if these words are put in their proper context, particularly in the context of "blessing" (Gen 1:28) and "image and likeness" (Gen 1:26), a different meaning entirely will be conveyed. The English translation of Gen 1:26-28 connects humankind with "the image" and "likeness" of God.

This humanity, made in God's image is then blessed with the ability to cocreators of life, "be fruitful," and in this context is told to "subdue" (*kiveshuah*) and "have dominion over" (*uredu*) the earth. Thus, being made in God's image and recipients of God's blessing qualifies the intention of "to subdue" and "to have dominion" over. It follows that human domination is an authority conferred by God, a sharing in God's governance that must continue God's creative goodness. Human rule, in this context, is intended to have a constructive outcome, as Claus Westermann states: "In ruling, humans must preserve humanity and remain human."

By implication, it means that to subdue and have dominion, humans should protect and allow creation to thrive. In the final analysis, we are answerable to God and creation.

Pope Francis has warned that we are not God and that the earth was here before us. He says we Christians now have an opportunity to respond to the accusation that Judeo-Christian thinking based on the Genesis account of creation "has encouraged the

⁵⁹ Collins, "Subdue and Conquer," 27

⁶⁰ Collins, "Subdue and Conquer," 31

⁶¹ Collins, "Subdue and Conquer," 31.

⁶² Collins, "Subdue and Conquer," 28.

unbridled exploitation of nature by painting him as domineering and destructive of nature."⁶³ Francis maintains that this is not the correct interpretation of the Bible by the Church while admitting that sometimes our interpretation of subdue and have dominion is incorrect.

Although it is true that we Christians have at times incorrectly interpreted the scriptures, nowadays, we must forcefully reject the notion that our being created in God's image and given dominion over the earth justifies absolute domination over other creatures. The biblical texts are to be read in their context, with appropriate hermeneutic, recognizing that they tell us to "till and keep" the garden of the world (cf. Gen 2:15).⁶⁴

Instead of plundering the earth, we are called to keep, preserve, oversee, and protect it.

Furthermore, as Walter Brueggermann says, the dominion mandated by God is that of a good shepherd who tends, cares for, and feeds animals. "Thus, the task of 'dominion' does not have to do with exploitation and abuse. It has to do with securing the well-being of every other creature and bringing the promise of each to fruition." Therefore, we Christians must seek to understand and teach dominion in this context as a service like Jesus did to the point of laying down his life for others. Having explained how the earth is being damaged partly because of our misunderstanding and misinterpretation of Genesis 1:26, I will now transition to the Tiv people and their philosophy of *ya na angbian*.

⁶⁴ Francis, *Laudato Si*, 67.

⁶³ Francis, *Laudato Si*, 67.

⁶⁵ Walter Brueggemann, Interpretation: A Bible Commentary for Teaching and Preaching. (Kentucky: John Knox, 2010), 32.

The Tiv People

The Tiv word has three meanings. First, the term designates the people as an ethnic group. Secondly, it refers to their language; thirdly, it relates to a single ancestral father, Tiv. In this thesis, I will engage the ethnic designation and having one ancestral father. The Tiv ethnic group has a population estimated at over 5 million individuals, mainly in Nigeria, with few living in Cameroon. They constitute roughly 2.4% of Nigeria's population. The Tiv language is spoken by about 5 million people in Nigeria and a few speakers in Cameroon. In Nigeria, most Tiv people live in Benue state but can also be found in Taraba, Nasarawa, Adamawa, Plateau, Abuja, Kaduna, Niger, and Cross River. The Tiv people are primarily farmers.

Tiv people are known to have descended from one ancestor:

The entire population of Tivland believes itself to be descended from a single male ancestor, Tiv, who lived from fourteen to seventeen generations ago. The whole people form a single segmented lineage: all can be put on to a single agnatic genealogical chart. Every unilineal descent group is said to be made up of the descendants of a single ancestor, but each is a point of differentiation between his own group and another group descended from his sibling. Both are united in terms of their common father (or mother) in the putative genealogy.⁶⁷

The majority of the Tiv people who are currently found in the Benue valley are believed to have migrated from the Cameron. The migration process leading to the settlement started from c.1500-1990.⁶⁸ Terhemba Wuam holds that the migration process of the Tiv people was not easy, but they fought their way through. "Beginning from c1500, and over the next two centuries, the Tiv moved gradually and slowly to inhabit the Benue Valley

⁶⁶ Tughhemba Terfa Nicholas, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social and Political Philosophy," https://scholar.googleusercontent.com/scholar. 5.

⁶⁷ Paul Bohannan, "The Migration and Expansion of the Tiv," *Journal of International African Institute* 24. no.1 (1954). 2.

⁶⁸ Terhemba Wuam, "Tiv Origins of Nationhood and Migration into the Benue Valley, c.1500-1900," Journal of Tourism and Heritage Studies Vol 2, no 2 (2013) 40.

already inhabited by other people who made up the Apa confederacy. The migration as noted by Dorward, was fraught with several dangers and they were constantly harassed by bush 'tribes' or *atoatiev*."⁶⁹ The migration of the Tiv people has continued to date, albeit on a smaller scale. Since their occupation is mainly farming, they always search for fertile land to farm. This explains why they are now found in several states of Nigeria other than Benue state.

Additionally, Tiv people say that their original home was a hill called 'Swem' farther southeast of their present location. "Swem' is usually identified with the hill marked Ngol Kedju on maps of Nigerian Cameroons. The area is still inhabited by 'Bush Tribes' (atoatiev), who resemble Tiv in culture and aspects of their language. The Tiv separated from these bush tribes and 'came down' in search of new homes." The Tiv traveled and settled with other groups of people along the way before they later settled on *Ibenda* Hill within the Tiv Division. One story had it that they were living together as one undivided group. Still, it got dispersed from *Ibenda* Hill due to their conflict with their neighbors, the Ugenyi people living along river Kastina-Ala. According to the story, this led to "Mbalpusu and MbaCongo" (the two largest lineages into which the entire tribe is divided)."

However, those who know Tiv history maintain that "Tiv had two children, Ipusu and Icongu, and that it was they who begot all Tiv." The children of Ipusu were Shitile

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⁶⁹ Wuam, "Tiv Origins of Nationhood and Migration into the Benue Valley," 5.

⁷⁰ Akiga Sai and Paul Bohannan, "The Descent 'of the Tiv from Ibenda Hill," Journal of African Institute. Vol24 no4(1954) 296.

⁷¹ Sai and Bohannan, "The Descent' of the Tiv from Ibenda Hill," 296.

⁷² Sai and Bohannan, "The Descent' of the Tiv from Ibenda Hill," 297.

⁷³ Sai and Bohannan, "The Descent' of the Tiv from Ibenda Hill," 299.

⁷⁴ Sai and Bohannan, "The Descent' of the Tiv from Ibenda Hill," 299.

(Shitile), Kpar (Kparev), Kum (Ukum), and Tongo (Tongov). At the same time, the children of Icongo were Ihar (Iharev), Gondo (Ugondo), Nongo (Nongov), Ikura (Ikurav), Ikorakpe (Turan), Mase (masev), and Tongo (Tongov). The bottom line is that the Tiv people have one father, Tiv, and his children, grandchildren, and greatgrandchildren constitute all the clans or segments (*uipaven*) in Tiv land today.

Ya Na Angbian

Ya na angbian is a Tiv socio-political philosophy that promotes the fair distribution of the benefits in society to all the clans in Tiv land. It is a philosophy that encourages justice in the Tiv society through collaboration in order to reduce marginalization, individualism, corruption, and greed. As Tughhemba writes:

There are two components in Ya Na Angbian: Ya which means eat and Na Na Agbian which means give to your neighbor or sibling. "Ya" literally can assume various meanings depending on the context within which it is used. For instance, when you win election somebody can say in Tiv: "U ya ishangen." Ya in this context means "Victory". When one is appointed a king, it is said "U ya tor". When a football player scores a goal during a match, it is "A ya ikyo". Ya is also used to connote "comfort or enjoyment": "A ya tar", meaning he has enjoyed life. The concept can also be used to designate looting of public funds. This is implied when I say, "A ya iyaregh". That is, he has embezzled money. 76

Although *Ya* is used to connote different things depending on the context, this thesis will use it to mean eat. On the other hand:

Na Angbian means "give your neighbor or sibling". Who then is a neighbor or sibling? It can be a male or female personality. *Na angbian* has to do with sharing what one has with his fellow human beings. In other words, it implies sacrificing one's time, talent, energy and other resources for the good of others. *Ya na angbian* as a principle in Tiv society emphasizes on the welfare of all Tiv people and sundry. ⁷⁷

⁷⁶ Tughhemba, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social and Political Philosophy," 3.

⁷⁵ Sai and Bohannan, "The Descent' of the Tiv from Ibenda Hill," 298-299.

⁷⁷ Tughhenba, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social and Political Philosophy," 3.

The Tiv people see themselves as brothers and sisters; therefore, the *ya na angbian* socio-political philosophy encourages sharing and using every available talent and resource for the good of all. The Tiv people believe that if their society is ruled by the spirit of *ya na angbian*, there will be justice, harmony, peace, and progress for all the sons and daughters of Tiv.

Democracy in Nigeria and the Zoning Formula

Nigeria is a country in the west of the African continent. The population of the country is estimated at over 200 million. It is a democratic country that operates a presidential system of government. Although it has over 250 tribes and languages, Nigeria is politically divided into six geo-political zones: South East, North Central, North East, South-South, South West, and North West. Nigerians, particularly since 1999, have advocated the sharing of political offices and wealth of the nation fairly among the country's six geo-political zones.

For example, the rotation of the presidency is a standard call in the country, not just between the South and Northern parts of the country, but among the different zones. "As argued, Haruna (2013), advanced the most popular reason(s) given for the demand for rotational presidency zones in Nigeria, that "since Nigeria attained independence, the Northern region has produced nine out of the fourteen Heads of state be it a military or civilian while, the Southern part has produces only five." This has been perceived as a perpetual domination of the Southern region by the North." Some agitations for the rotational presidency are based on "allegations that Northern leaders behave as if they

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⁷⁸ Abdul Rauf Ambali and Ahmed Letswa Mohammed, "Sustainable Democracy and Political Domination: A Rotational Presidency among Nigerian Ethnic Groups," *Journal of Administrative Science* Vol 13 issue 1 (2016) 2.

have been ordained or born to rule other Nigerians."⁷⁹ This agitation is now seen and heard in every aspect of Nigerian social, economic, and political life. The feeling of marginalization and domination by others is the backbone of the agitation for fair distribution of positions and wealth in the country.

The agitations and implementation of these agitations are a work in progress. Still, many believe that if the socio-political philosophy of the Tiv people is implemented at the national level, there will be a feeling of fairness. Justice will prevail for peace and development to follow for the benefit of all Nigerians.

I will use the Tiv Social Political Philosophy of sharing to avoid conflict and the agitation for the rotational presidency in the spirit of *ya na angbian* to apply to how we ought to relate with non-human nature in this thesis Subsequently. If the Tiv people are one with the same ancestor believe that sharing what they have with their siblings will engender peace, it goes to say that if we strive to share this world fairly with non-human nature, harmony among all God's creatures will prevail.

In this chapter, I have called for conversion from our maltreatment of the Earth after stating the problem. I have also looked at the concepts of "have dominion" and "subdue" in the light of the misinterpretation of Genesis 1:26. Not left out are the constitution of the Tiv tribe, their migration, current settlement, and their socio-political-philosophy of *ya na angbian*. In the next chapter, I will look at the consequences of the misinterpretation of Genesis 1:26.

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⁷⁹ Ambal and Mohammed, "Sustainable Democracy and Political Domination," 2.

Chapter Two

The Consequences of Our Misunderstanding

In this chapter, I will explore the results of humankind's domineering relationship with non-human nature, particularly in Nigeria. The authoritarian attitude of humanity towards the environment comes from a misunderstanding of the place of non-human beings in the world and limited knowledge about the responsibilities of human beings towards the other creatures of God. Taking Genesis 1:26 and Genesis 1:28 literally and without appropriate interpretation has contributed hugely to the misunderstanding in our relationship with non-human nature. There are other resources in the bible that can influence people about how we should relate to non-human nature. The consequences resulting from this misunderstanding have been grievous. I will begin by examining the situation in the Niger Delta; then move to the evidence of Earth's destruction in other parts of Nigeria. I will end the chapter by looking at the good and downsides of technological advancement.

There is no location in Nigeria where non-human nature has been destroyed more than the Niger Delta. The destruction of nature in the Niger Delta has resulted from oil exploration and exploitation. The destruction has impacted both non-human and human beings. Oil exploration and exploitation have caused significant damage to the natural environment, which the people of the Niger Delta region depend on for their sustenance

and livelihood. Additionally, the activities of oil companies in the area have led to conflicts among communities.¹

Niger Delta and Nature Destruction

The Niger Delta spans around 70,000 square kilometers in southern Nigeria. Rivers Niger and Benue flow through the Niger Delta into the Atlantic Ocean.² Even though it makes up only about 7.5% of the landmass in Nigeria, it is occupied by more than 31 million people with more than 40 ethnic groups and several dialects. The region has vast amounts of oil and gas reserves, making Nigeria the largest oil producer in West Africa and among the top ten petroleum producers in the world.³ "The Niger Delta consists of diverse mangrove swamps, freshwater swarms, and rainforest ecosystems. It is the largest wetland in Africa and among the world's ten most important wetlands and marine ecosystems." However, pollution resulting from oil exploration and exploitation in the region has damaged the ecosystem with attendant consequences on the area's land, biodiversity, and people.

The reality on the ground shows that "the area is now characterized by contaminated streams and rivers, forest destruction, and biodiversity loss in general. The

¹ Abosede O. Babatunde, "Oil Pollution and Water Conflicts in the Riverine Communities in Nigeria's Niger Delta Region: Challenges for and elements of problem-solving Strategies," *Journal of Contemporary African Studies* 38, no.2 (2020): 274.

² Niger Delta, https://en.wikipedia.org/wiki/Niger Delta#-text=The Niger Delta%2C as now, %2C Delta %2C and Rivers states, 1.

³ Babatunde, "Oil Pollution and water conflicts in the Riverine Communities in Nigeria's Niger Delta region: Challenges for and Elements of Problem-Solving Strategies," 274

⁴ Kadafa A. Ayuba, "Environmental impacts of Oil Exploration in the Niger Delta of Nigeria," *Global Journal of Science Frontier Research Environmental & Earth Sciences* 12 (2012): 19.

area is an ecological wasteland. This affects the livelihood of the indigenous people who depend on the ecosystem services for survival, leading to increased poverty and displacement of people." Unfortunately, the extent to which nature has been destroyed in the Niger Delta is devastating.

Oil Discovery, Exploration, and Exploitation in the Niger Delta

In 1956, Shell British Petroleum (now Royal Dutch Shell) discovered crude oil in a village called Oloibiri in Bayelsa State, located within the Niger Delta in Nigeria. Commercial exploration and exploitation of crude oil in this region started in 1958.⁶

Undoubtedly, the oil industry has contributed immensely to Nigeria's development and growth, being the country's primary source of revenue. Nevertheless, "unsustainable oil exploration activities have rendered the Niger Delta region one of the five most severely petroleum-damaged ecosystems in the world. Studies have shown that the quantity of oil spilled over 50 years was at least 9-13 million barrels, which is equivalent to 50 Exxon Valdez spills."

The discovery of oil and subsequent exploration was a blessing to the Niger Delta region and Nigeria. Unfortunately, it has become a nightmare for the environment and people of the Niger Delta. Multi-national companies exploring oil in the region have

⁵ Ayuba, "Environmental Impacts of Oil Exploration in the Niger Delta of Nigeria," 19.

⁶ Ayuba, "Environmental Impacts of Oil Exploration and Exploitation in the Niger Delta of Nigeria," 20.

⁷ Ayuba, "Environmental Impacts of Oil Exploration and Exploitation in the Niger Delta of Nigeria," 18.

ravaged and heavily polluted the area. Furthermore, the massive environmental degradation has left the area's inhabitants without an economic livelihood.

Environmental Degradation Resulting from Oil Exploration

The destruction of land and species and its impact on the people in the Niger Delta are well described by Bere Suanu Kingston, born on April 22, 1966, in Ka Banga, a village in Ogoniland, Niger Delta. He recalled how the flat Ogoniland was a peaceful place, especially before the exploration of oil resources. Although this historical kingdom is not coastal, some rivers pass through its villages, making it look like an ocean. Ogoniland was agrarian and notable for cultivating yam, cassava, cocoa, and plantain. According to Bere Suanu Kingston, the people of Ogoni land also had palm trees and used red palms for cooking oil.9 However, oil drilling in this community destroyed the peace and vegetation of this area. Kinston recollected that Shell started drilling in Ogoniland a few years before he was born and vividly remembered seeing them moving into his village, Ka Bangha: "Surveyors and heavy equipment would come in, and we'd hear the sounds, loud machine noises. First, one truck, then many. When I was a child, there was not too much awareness of what the oil companies were doing." After Shell started drilling for oil, Kingston narrated the experience of always seeing the light from gas flares at night but would only be excited that there was light. They usually exclaimed, "look, there is light, there is light!" 11

⁸ Corinne Goria, "Bere Suanu Kinston," in *Invisible Hands Voices from Global Economy* (San Francisco: Mc Sweeney's publishing, 2014), 258. This book is a collection of the economic situation in various places worldwide. In it, Corinne Goria interviewed Bere Suanu Kingston.

⁹ Goria, "Bere Suanu Kingston," 258.

¹⁰ Goria, "Bere Suanu Kingston," 259.

¹¹ Goria, "Bere Suanu Kingston," 260.

Eventually, the effects of oil exploitation started appearing without them knowing. He recollected: "Even when I was young, we saw oil runoff in the river. The river was oily and black. And we had no idea what to do when we saw the water was polluted with oil. When my grandmother and my mom saw the water, they just said, "what is this?" To drink, we'd push aside the oil on the surface and then scoop up the water." Kingston recounted that the fish in the river were dying and people were getting sick, but they did not know that the pollution from the oil exploration was the cause: "Fish were dying, though when I was younger, we didn't connect that with the oil. We didn't know the pollution was killing our fish, killing trees, contaminating our water, making us sick." Kingston further noted that some people deliberately drank the oil, believing it would help their immune systems and clean out some bacteria. He added: "I remember once when an oil pipe broke, and oil spilled out over the land, some people took some home to try out as cooking oil." The destruction of nature did not stop there; instead, it developed a chain effect.

Although Shell was exploring oil in this community and building roads for the mobility of heavy machinery to drill, the villages around needed social amenities, according to Kingston. He recollected, "no plumbing, no electricity, no hospitals, no jobs. At the same time, the land and water we needed to support ourselves were becoming toxic." He revealed that to worsen the matter, the government refused to take responsibility while all this destruction was happening. "The problem was, in Nigeria, we

¹² Goria, "Bere Suanu Kingston," 260

¹³ Goria, "Bere Suanu Kingson," 260.

¹⁴ Goria, "Bere Suanu Kingston," 260.

¹⁵Goria, "Bere Suanu Kingston," 260-261.

are a minority. The government didn't care about our rivers, about how we grew our food. The government cared about oil; they didn't care about us," he concluded.

Oil Spill and Gas Flaring

It is estimated that between 9 million and 13 million barrels of oil have been spilled into the Niger Delta ecosystem in the last 50 years due to the activities of oil companies and vandals. "The first oil spill in Nigeria was at Araromi in the present-day Ondo state in 1908. In July 1979, the Forcados tank 6 Terminal in Delta state incidence spilled 570,000 barrels of oil into the Forcados estuary polluting the aquatic environment and surrounding swarm forest."

The Funwa No 5 well spillage is also noted for contaminating the ocean with 421,000 barrels of oil between January 17th and January 30, 1980. As a result, "836 acres of mangrove forest within six miles of the shore were destroyed." The Ebocha-Brass (Ogada-Brass 24) pipeline also flooded a lake and swarmed the forest. ¹⁹ Today the Niger Delta region continues to experience massive oil spills that destroy its ecosystem without serious mitigation efforts. On April 18, 2022, the 12-inch Bensede-Brass creek delivery line reported a crude oil leak. This leak happened in the riverine enclave of Peretuorugbene in Bayelsa state. ²⁰

Multi-national companies have installed 7,000km of oil and gas pipelines to improve the distribution of petroleum products to different parts of Nigeria. Oil spillage

¹⁶Goria, "Bere Suanu Kingston," 261.

¹⁷ Ayuba, "Environmental Impacts of Oil Exploration and Exploitation in the Niger Delta of Nigeria," 21.

¹⁸ Ayuba, "Environmental Impact of Oil Exploration and Exploitation in the Niger Delta of Nigeria," 21.

¹⁹ Ayuba, "Environmental Impact of Oil Exploration and Exploitation in the Niger Delta of Nigeria," 21.

²⁰ Oyadongha Samuel, "Crude Oil Leak Rocks Bayelsa Community," *Vanguard Newspaper*, Nigeria (April 18, 22): 3.

occurs mainly due to aging pipelines and poor maintenance. "Nonetheless, the problem of illegal bunkering and vandalizing of petroleum pipelines contribute immensely to oil spillage and degradation of the environment." The illegal bunkering and pipeline vandalization arise from the "destructive tendencies of restive youths who are aggrieved by government neglect of oil-producing communities and corruption of the ruling class amassing wealth through collaboration with oil companies." Sadly enough, "these social vices perpetrated by the youths have counter effect in increasing the level of spills on the environment and negative effects on water and land agricultural produce." Oil spills from various sources have resulted in a tremendous negative effect on Nigeria's ecosystem and economy.

In 2021, between November 5 and 6, crude oil from a blowout poured into the creeks. The blowout is a non-producing oil well in the Santa Barbara field in Bayelsa state. It caused massive pollution of rivers and farmland in Nembe local government area, Douye Diri, the governor of Bayelsa state, said. He warned Aiteo, the oil company that owned the well thus: "This criminal neglect of its facilities and disregard for human life and environment, as demonstrated by its conduct, will be accounted for." Aiteo, on its part, blamed the incident on oil pipeline sabotage. Samuel Oburo, an environmental activist affiliated with "Friends of the Earth" who lived 50 kilometers from Nembe, said

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²¹ Eze S. Osuagwu, "Effects of Oil Spill on Fish Production in the Niger Delta," *Journal.Phone*. 13, no.10 (2018): 2

²² Osuagwu, "Effects of Oil Spill on Fish Production in the Niger Delta," 2.

²³ Osuagwu, "Effects of Oil Spills on Fish Production in the Niger Delta," 2

²⁴ Mongabay, "Niger Delta Community in 'Great Danger' as Month-Old Spill Continues," News and Inspiration from Nature's Frontline 6 December (2010): 2. Mongabay is a U.S based nonprofit conservation and environmental science news platform. https://news.mongabay.com

²⁵ Friends of the Earth is a non-governmental organization working for a healthier and more just world. The members speak truth to power and expose those who endanger the health of people and the planet.

that the spill had badly impacted villagers in the area. The villagers, he said, had started experiencing strange illnesses due to the community's exposure to the unfriendly atmosphere resulting from the oil spill. He also expressed sorrow about the inability of oil companies and the government to take responsibility for neglect. He maintained that "getting oil firms to clean up or pay for environmental crimes in Nigeria is difficult.

Legal claims for compensation can take years, even decades, and companies are expected to pay relatively little in fines when they err." Page 12.

Since 2014, Eni energy Company has reported 820 spills in the Niger Delta, with 26,286 barrels or 4.1 million liters of lost oil, while Shell has reported 1,010 spills with 110,535 barrels or 17.5 million liters of lost oil since 2021. While these numbers may sound huge, the Mongabay news platform revealed that "the spill volumes are also likely to be inaccurate as our research has shown how the companies underestimate the real amount." The Nigerian government records showed 1659 spills by Eni and 1369 spills by shell within the same period. A study by Amnesty International revealed delays in companies' responses to oil spills, which lingered for months. "Shell, one of the largest operators in the country, visited spill sites within 24 hours on just 26% of occasions." The "slowest response time recorded was when Eni took 430 days to respond to a spill in Bayelsa state." These delays are purely a sign of negligence. The oil companies do not care. If they cared, they would have responded faster than they did.

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²⁶ Mongabay, "Niger Delta Community in 'Great Danger," 5.

²⁷ Mongabay, "Niger Delta Community in 'Great Danger," 5.

²⁸ Amnesty International, "Niger Delta Negligence," Business and Human Rights News (4.21.22): 5.

²⁹ Mongabay, "Niger Delta Communities in 'Great Danger," 5.

³⁰ Mongabay, "Niger Delta Communities in 'Great Danger," 5.

Another source of pollution in the Niger Delta is gas flaring. Oil companies like Shell have used oil exploration methods that harm the region's environment and inhabitants. The drilling methods used by oil companies lead to gas flaring, as crude oil is extracted from the ground without the technology to put gaseous by-products into use. Gases are released into the environment. The study by Eze Osuagwu on the environmental degradation and human health detriments due to oil exploration and exploitation in nine communities of the Niger Delta revealed: "that gas flaring has a statistically significant but dangerous impact on human health in the affected areas, given high temperatures and emissions to the atmosphere."

Over the years, the government has promised but failed to stop gas flaring. This is mainly due to the government's partiality towards Shell company. Government officials and politicians have unhealthy relationships with the executives of oil companies that hinder the strict monitoring of such oil companies.

Destruction of Biodiversity in the Niger Delta

The biodiversity in the Niger Delta was vibrant, diverse, and rich. Species were supported by each other. Ayuba writes, "The Niger Delta has been declared a key zone for the conservation of the western coast of Africa on the basis of its extraordinary biodiversity." The people of the Niger Delta survived on the support system provided by the region's ecosystem: fishing, food, drinking water, agriculture, wood, industry, shelter, medicine, aesthetics, and employment. However, the 50 years of oil exploration and exploitation have destroyed the ecosystem and rich local biodiversity. The

³² Ayuba, "Environmental Impact of Oil Exploration and Exploitation in the Niger Delta," 21

 $^{^{31}}$ Osuagwu, "Effects of Oil Spills on Fish Production in the Niger Delta," 2.

involvement of oil companies in seismic drilling and dynamiting for geological evacuation affects the aquatic environment.³³ Additionally, seismic oil drilling destroys water quality: "It causes mortality in fauna, turbidity in the water that blockage of gills of the filter feeders in the benthic Fauna, reduction of photosynthetic activity caused by the water turbidity that reduces the amount of sunlight penetration."³⁴ Toxic water is harmful to humans, animals, and plants. Mary McGann corroborates this in her statement that "twelve million deaths a year are caused by water-borne diseases as a result of biological and toxic contamination of water. Fish stocks in rivers and seas are being destroyed through the pollution of water, and underground aquifers around the world are being drained at a fast rate."³⁵

The destruction and depletion of water in the Niger Delta is a massive ecological crisis.

The story of the Niger Delta fits perfectly into what economists call the "paradox of plenty" or the "resource curse." The discovery of fossil fuel and its exploration has been bad news for the region's land and people. Indeed, their story is similar to the narratives of all other communities in developing nations rich in fossil fuels and mineral resources. Kingston affirmed that

in many developing nations, the wealth generated by natural mining resources ends up mostly in the hands of multinational corporations that can afford pricey extraction technology and political elite who lease their land or are otherwise paid off. For communities living near oil wells or copper mines, social, political, environmental, and economic instability is the norm. ³⁷

³³ Ayuba, "Environment Impact of Oil Exploration and Exploitation in the Niger Delta," 21.

³⁴ Ayuba, "Environmental Impact of Oil Exploration and Exploration in the Niger Delta," 21.

³⁵ Mary E. McGann, "Committed to Earth's Waters for life," in *Drenched in Grace*. Eds. Lizette Larson Miller and Waler Knowles. (Oregon: Wipf and Stock Publishing, 2013), 181.

³⁶ Goria, "Bere Suana Kingston," 192.

³⁷ Goria, "Bere Suanu Kingston," 192

Corruption between multinational companies, government officials, politicians, and some community leaders has deprived the land, species, and people of the Niger Delta of dignity. Their rights have been stolen away from them. Furthermore, the consequences of the selfish relationship between humans and nature are observable across Nigeria.

Other Consequences of Earth Destruction

The abuse of nature in different parts of the world, which has led to catastrophic repercussions, is also evident in Nigeria. I will discuss some of the effects of earth maltreatment below.

Climate Change: the climate in Nigeria has been changing and is now highly unpredictable. Kehinde Obasola says, "global warming denotes the accelerated warming of the earth's surface due to anthropogenic (human activity related) release of greenhouse gases due to industrial activity and deforestation." He adds: "The effect of these has been colossal on man and his society. Consequently, the environmental issues coupled with the greenhouse effect have heightened the rate of the ecological conditions, particularly in Nigeria." As a result of climate change, weather patterns, and water security are now doubtful. Samuel Wakdok and Raimund Bleischwitzt maintain that "the changing climate now makes shifting weather patterns and water insecurity more unpredictable, extreme, and stressful; those factors started to exceed the intimate understanding of natural rhythms associated with climate and weather across different temporal scales within the different groups competing for access to land." 40

³⁸ Kehinde E. Obasola, "Environmental Issues and the Greenhouse Effects in Nigeria: The Church's Approach," *Review of European Studies* 5, no. 4 (2013): 156.

³⁹ Obasola, "Environmental Issues and the Greenhouse Effects in Nigeria: The Church's Approach," 159.

⁴⁰ Samuel Wakdok and Raimund Bleischwitz, "Climate Change, Security, and the Resource Nexus: Case Study of Northern Nigeria and the Lake Chad," *SUSTAINABILITY 13, no.19* (2021): 4.

The unpredictable situation has caused crises between herders and farmers who need land and water for cattle grazing and farming. Additionally,

the effects of changes in climate in northern Nigeria have led to migration in two ways: firstly, the rural-to-urban migration in search of greener pastures by vibrant youth farmers, whose farm productivity has drastically reduced to a point it can no longer sustain their livelihood, especially in the current inflationary economy, and secondly, but more importantly to national security, is the migration to the south by the Fulani herdsmen, their animals in search of pasturelands and water.⁴¹

Climate change in Nigeria and its attendant effects have intensified the fast-worsening ecological crises in the country.

Drought and Desertification: drought and desertification are twin environmental issues facing Nigeria, particularly in the north. This, of course, flows from the change in weather. Decreased rainfall is leading to a need for more water and available vegetation. This, among other things, is leading to reduced agricultural yield. In Yobe state, one of the states in the north of Nigeria, "many farmers have no option during droughts, especially extreme episodes when their crops are damaged, and livestock is dead. Such drought shock can cause illness, including mental health problems among drought victims." The fifteen northernmost states in Nigeria are the most heavily affected by drought and desertification due to the lack of rain in the region. 43

Deforestation: another environmental problem facing Nigeria is the indiscriminate removal of forests. According to Obosola,

⁴¹ T. E. Olagunju, S.O Adewoye, and O.A Opasola, "Climate Change Impacts on Environment; Human Displacement and Social Conflicts in Nigeria," *IOP Conference Series: Earth and Environmental Services* (2021): 4.

⁴² A. G. Hassan, M. A. Fullen, and D. Oloke, "Problems of Drought and its Management in Yobe State, Nigeria," Weather and Climate Extremes 23 (2019): 4

⁴³ Olagunju, Adewoye, and Opasola "Climate Change Impacts on Environment: Human Displacement and Social Conflicts in Nigeria," 3.

Deforestation affects the livelihood of between 200 and 500 million people who depend on forests for their food, shelter, and fuel. Deforestation and degradation may contribute to regional and global climate imbalances. Forests play a major role in carbon storage, but with their removal, excessive carbon dioxide in the atmosphere may lead to global warming and many problematic side effects.⁴⁴

The selfish destruction of forests further renders the wildlife homeless and dead, reducing biodiversity. This is apart from causing drought, erosion, and flooding. Olanisebe submits that:

There is the falling of trees in and around individual homes. The majority of forest reserves in Nigeria are being rampaged by those that could be described as "Marauders." They fell the trees unlawfully without planting another in return. Apart from depleting the country's economy, there is the problem of erosion that normally arises from such deforestation.⁴⁵

Deforestation invariably destroys thousands of species, livelihoods, and the ecological balance of ecosystems in Nigeria.

Pollution: land and water pollution affect the Niger Delta and many other parts of Nigeria. Data released by the world health organization (WHO) in 2016 labeled Onitsha, a city in the eastern part of the country, as the most polluted city in the world. The report showed that four of the worst polluted cities are in Nigeria. The Data further revealed that "Onitsha--a city few outside Nigeria would have heard of--has the undignified honor of being labeled the world's most polluted city for air quality." The other cities named by WHO were Kaduna, Aba, and Umuahia. In 2015, "the world bank reported that 94% of the population in Nigeria is exposed to air pollution levels that exceed WHO guidelines

⁴⁴ Obasola, "Environmental Issues and the Greenhouse Effects in Nigeria: The Church's Approach," 158.

⁴⁵ Obasola, "Environmental Issues and the Greenhouse Effects in Nigeria: The Church's Approach," 158.

⁴⁶ Phoebe Parke, "Dirtied by Success? Nigeria is home to City with Worst PM10 Levels," *CNN Website May* 31 (2019), 2. 1.21.2023.

(compared to 72 on the average in sub-Saharan Africa in general). Nigerians carry out several activities that destroy earth structures or interfere with other environmental uses.

Overpopulation and Urbanization: overpopulation is also a massive problem associated with earth destruction in Nigeria, particularly in the cities. Overpopulation has led to a severe downturn in the quality of the environment. Abogunrin laments: "Today, unprecedented demands on the environment from rapidly expanding human population and from advancing technology are causing a continuing and accelerating decline in the quality of the environment and its ability to sustain life." Furthermore:

In all our mega cities, all available lands are built up without any respect for environmental laws. Even in the new areas of our cities, houses are built without any consideration for environmental hazards. Surprisingly, most of these buildings have government-approved plans. It appears that those who approve these building plans have little or no consideration for environmental hazards before approval.⁴⁸

Other attendant problems that overpopulation has brought to Nigerian cities are stress on social amenities, improper waste disposal, and open defecation. Overpopulation and subsequent urbanization in Nigeria are attributed to many factors, including poverty and insecurity. The result of various studies carried out on urbanization and the problems associated with it shows that: "This has created urban health crises of inadequate safe water supply, squalor and shanty settlements, sanitation, solid waste management, the double burden of diseases, and inefficient, congested, and risky transport system."⁴⁹

 $^{^{47}}$ Obasola, "Environmental Issues and the Greenhouse Effects in Nigeria: The Church's Approach," 158.

⁴⁸ Obasola, "Environmental Issues and the Greenhouse Effects in Nigeria: The Church's Approach," 158.

⁴⁹ A. Aliu and Lawal Amadu, "Urbanization, Cities, and Health: The Challenges to Nigeria – A Review," *Annals of African Medicine 4* (2017), 1.

Congested cities, as a result of migration, are causing further migration. People move when the conditions under which they live are unfavorable. This often happens when an increased population in a particular place and social amenities are overstretched.

Soil Erosion: the problem of soil erosion is also a significant consequence of the maltreatment of the earth, particularly in the eastern part of Nigeria. This trend has destroyed massive land areas, including property, disrupting life. Therefore:

The development of gullies and other forms of erosion have become the greatest environmental hazard and disaster rampant in southeastern Nigeria. Agricultural productivity, sustainability, and management for food security/sustenance in this region have been undermined and greatly limited by the menace posed by soil erosion, while the availability of farmlands for agricultural production and construction activities has been greatly reduced by losses caused by the attendant issues of soil erosion.⁵⁰

The problem of soil erosion has seriously contributed to the migration of southeastern Nigerians within and outside Nigeria.

Flooding: flooding, too, is an ecological problem in Nigeria. The country has recorded unprecedented floods in different parts and huge cities every year in the last decade.

Lagos, the most populous African city, is a coastal city that experiences flooding every year, which has been worsening. The Cable News Network (CNN) stated in 2021 that "Perennial flooding in Nigeria's coastal areas has left many dead and scores displaced.

According to NEMA data, more than 2 million people were directly affected by flooding in 2020. At least 69 people lost their lives in flood disasters last year. In 2019, more than 200,000 people were affected by floods, with 158 fatalities." ⁵¹

⁵¹Nimi Princewill, "Lagos Floods: Africa's Most Populous City could be Unbelievable in Few Decades. Experts Warn," *CNN Website*, August 1 (2021).

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⁵⁰ Okorafor Okay, Akinbile Oluwakunmi, and Adeyemi Jonathan, "Soil Erosion in South Eastern Nigeria: A Review," *Scientific Research Journal 5* (2017): 30

Floods have been a significant source of displacement and death in Nigeria, apart from the destruction it causes to the environment.

Lake Chad: lake Chad is a freshwater lake where Nigeria, Cameroon, Niger, and Chad meet. It used to be a significant source of livelihood for millions of people living in the area, but the continuous depletion of the lake has deprived them of their livelihood. Nimi Prince provides a succinct description as follows:

Lake Chad was once the sixth-largest lake in the world, but prolonged drought and increased water use have changed the lake dramatically. It spans less than a tenth of the area it covered in the 1960s. Back then, the lake covered about 25,000 square kilometers, an area the size of the U.S. state of Vermont. Now it is smaller than Rhode Island.⁵²

As such, "In the last 50 years, lake Chad has shrunk by 95 percent due to climate change and human water consumption." The situation has led to a severe adjustment in livelihoods: "Lake Chad has, for a very long period, supported the livelihoods of millions of people from the different countries that share this transboundary water resource. Its shrinking over the decades has meant that many of those who depend on it for livelihoods would have to adjust to the changing resource environment of this lake basin." ⁵⁴

The drying up of Lake Chad has also been a cause of conflict in the area. There are now more people struggling over the decreasing water resources. It goes, therefore, that:

Given the transnational nature of lake Chad and its basin, the impact of its drying and the population pressure associated with new settlement patterns and trends can contribute to tensions among communities. The population reported incidents of sporadic conflicts among nationals of different countries (especially between

⁵² Lake Chad, West Africa, *Earth Resources Observation and Science (EROS) Center* htt://eros.usgs.gov/media-gallery/earthshot/lake-chad-west-africa, 1.

⁵³ Disappearing Lake Chad, Google Map December 23, 2014, https://www.google.com/maps/d/viewer?mid=1tRnzrTOBADPc7sjHxNDdUuSVBVc&ie=...., 1.

⁵⁴ Felix Zieba, Genesis Yengoh, and Abdouraman Tom, "Seasonal Migration and Settlement around Lake Chad: Strategies for Control of Resources in an Increasing Drying Lake," (25 August 2017). 1.29.2023. https://sciprofiles.com/profile/129239, 14.

Cameroonians and Nigerians) over control of the lake's water, land, and resources in some localities.⁵⁵

The situation in Lake Chad shows how one ecological crisis can lead to a chain of effects that further affect not only non-human nature but also human beings.

The Downside of Technological Advancement Towards Nature

In this section of this chapter, I will examine the benefits and dangers inherent in the advancement of technology. The rate at which technological advances aided in recent years by artificial intelligence have increased growth in many of humanity's endeavors is mind-boggling. Pope Frances notes: "We are the beneficiaries of two centuries of enormous waves of change: steam engines, railways, the telegraph, electricity, automobiles, airplanes, chemical industries, modern medicine, information technology and, more recently, the digital revolution, robotics, biotechnologies and nanotechnologies." The pope maintains that we have every reason to be grateful for the immense opportunities that science and technology have provided for the advancement of humanity while acknowledging that they are God's gifts to us. ⁵⁷ He continues:

Technology has remedied countless evils which used to harm and limit human beings. How can we not feel gratitude and appreciation for this progress, especially in the fields of medicine, engineering and communications.? How could we not acknowledge the work of many scientists and engineers who provided alternatives to make development sustainable?⁵⁸

The benefits of the technological revolution notwithstanding, it has also been a source of nature degradation.

⁵⁵ Zieba, Yengoh, and Tom, https://sciprofiles.com/profile/129239, 23

⁵⁶ Francis, *Laudato Si*, 102.

⁵⁷ Francis. Laudato Si. 102.

⁵⁸ Francis. Laudato Si. 102.

Pope Francis has, therefore, questioned the way of understanding human life and living styles brought about by technological advancement. He holds that technological growth has put us at a crossroads.⁵⁹ According to him, men and women have always respectfully intervened in nature, receiving what nature offers. But presently, it is a different story, he maintains:

Now, by contrast, we are the ones to lay our hands on things, attempting to extract everything possible from them while frequently ignoring or forgetting the reality in front of us. Human beings and material objects no longer extend a friendly hand to one another; the relationship has become confrontational. This has made it easy to accept the idea of infinite or unlimited growth, which proves so attractive to economists, financiers and experts in technology.⁶⁰

He is categorical in his emphasis that the current contentious relationship between humans and non-human nature is based on a lie. The pope says

it is based on the lie that there is an infinite supply of the earth's goods, and this leads to the planet being squeezed dry beyond every limit. It is the false notion that "an infinite quantity of energy and resources are available, that it is possible to renew them quickly, and that the negative effects of the exploitation of the natural order can be easily absorbed." 61

Pope Francis warns that the increase in technological power does not mean that reality, goodness, and truth have automatically entered the world while he also insisted that:

Many problems of today's world stem from the tendency, at times unconscious, to make the method and aims of conscience and technology an epistemological paradigm which shapes the lives of individuals and the workings of society. The effects of imposing this model on reality as a whole, human and social, are seen in the deterioration of the environment. 62

Pope Francis has warned that humanity is not trained to use power well; hence, we need to be careful not to surrender to immediate needs that expose us to the ever-increasing

60 Francis, Laudato Si, 106.

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⁵⁹ Francis, *Laudato Si*, 106.

⁶¹ Francis, Laudato Si. 106.

⁶² Francis, Laudato Si, 107.

power of technology. He stresses that our technology does not, in large part, go along with progress in values, conscience, and human responsibility.⁶³

Technology is good but has its dangers and is the driver of many ecological problems. To develop an ecological culture, we must think and cultivate a lifestyle different from the technological model cleverly imposed as the ultimate reality.

Technology has its limits, so it must not be consumed without question. We ought to appreciate the positive contribution of technology but also be mindful of its dangers. We should control technology rather than technology owning us and driving the harm we do to our planet.

In this chapter, I have looked at the consequences of humanity's misunderstanding of creation, our relationship with non-human beings, and God's command to subdue and have dominion over his non-human creatures. These consequences have enormous impacts, affecting both nature and human beings. My exploits in this regard have been specifically in Nigeria. I have also looked at how technology has done so much good but is also driving the damage we do to nature. In the next chapter, I will examine the kinship concept of creation from both scientific and religious perspectives and explore how the Tiv social-political philosophy *ya na angbian* can be applied to our relationship with nature for an improved relationship.

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⁶³ Francis, Laudato Si, 114.

Chapter Three

A Turn to Creation: Cultural Resources (Kinship)

In this chapter, I will look at the need to change how we think of our relationship with the earth. I will explore the universe's origins from a Christian tradition and scientific perspectives to guide and encourage a new conception of the relationship between humans and non-human beings. After that, I will apply *ya na angbian* social-political philosophy of the Tiv people to how human beings should relate to non-human nature. The lack of appreciation of the source of human beings and how interconnected we are is partly responsible for the distorted and harmful relationship between humankind and the earth. Correctly understanding and acknowledging creation will be highly helpful to all creatures' relationships.

A Kinship Model

The kinship model of understanding our relationship with the earth entails seeing humans and non-humans as kin. Human beings and non-human beings are all members of the same family of creation. For this reason, Elizabeth Johnson holds that "At this point in evolutionary history we form one mutually interdependent community of life. We are kin." She explains further:

Take, for example, trees. Their process of photosynthesis creates oxygen, the most essential, life-sustaining element in the air we breathe. Without trees there would be no animal or human life on this earth; we would all be asphyxiated. Now, biologically speaking, trees do not need human stewardship. Without human beings they existed very well for millennia. Human beings, however, positively need trees in order to breathe. Who, then, needs whom more? By what standards do human beings say they are more important than trees?²

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¹ Elizabeth A. Johnson, *Women, Earth, and Creator Spirit* (New York: Paulist Press, 1993), 31.

² Johnson, Women, Earth, and Creator Spirit, 13.

She opposes the absolute Kingship model of conceiving the earth where "humanity is separated from the earth and placed in a position of absolute dominion over all other creatures who are made for us." This understanding Johnson maintains results in a top-down domination of nature by humankind.

On the stewardship model, Johnson asserts that it keeps the hierarchical dualism structure as in the absolute kingship model but, in this case, "calls for human beings to be responsible caretakers or guardians of the earth and all its creatures." Responsible care, she says, is done in the self-interest of humanity. In this model, therefore, Johnson affirms that "humanity is still at the top of the pyramid of being but has a duty to protect and preserve what seems weaker and more vulnerable. This position is clearly an improvement over the absolute ruler model, for it guarantees a modicum of respectful use of the earth. Particularly in the political and legal spheres, its vision is highly beneficial for crafting policy." Nonetheless, she argues that the steward model still "misses the crucial aspect of human dependence upon that which we steward." Therefore, Johnson states: "Upon reflection the stewardship model itself finds its deepest foundation in the kinship model that traces an organic connection between human beings and the earth."

She subsequently declares:

If separation is not the ideal but connection is; if dualism is not the ideal but the relational embrace of diversity is; if hierarchy is not the ideal but mutuality is; then the kinship model more closely approximates reality. It sees human beings and the earth with all its creatures intrinsically related as companions in a community of life. Because we are all mutually interconnected, the flourishing or damaging of one ultimately affects all. This kinship attitude does not measure

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³ Johnson, Women, Earth, and Creator Spirit, 29.

⁴ Johnson, Women, Earth, and Creator Spirit, 30.

⁵ Johnson, Women, Earth, and Creator Spirit, 30.

⁶ Johnson, Women, Earth, and Creator Spirit, 30.

⁷ Johnson, Women, Earth, and Creator Spirit, 30.

differences on a scale of higher or lower ontological dignity but appreciates them as integral elements in the robust thriving of the whole.⁸

I am particularly interested in where Johnson mentions that since all beings, human and non-human, are connected, the damaging or flourishing of one affects the other.

From a scientific perspective, Johnson emphasizes that the natural world is the source of all living beings and sustenance them. We all come from, develop, and take form in the natural world. From a religious perspective, she maintains that "the kinship stance knows that we humans are interrelated parts and products of a world that is continually being made and nurtured by the Creator Spirit. Its attitude is one of respect for the earth and all living creatures including ourselves as a manifestation of the Spirit's creative energy." She quoted Sallie McFague, who wrote that "we belong, from the cells of our bodies to the finest creations of our minds, to the intricate, constantly changing cosmos." Johnson added that what goes on in the kinship model is neither a sentimental love of nature nor an ignorance that levels all distinctions between human beings and other life forms. Rather what is involved is a recognition of the truth: human existence is in fact one with the immensity of all that is." She affirms that even as species, we are not remote; instead, even in our uniqueness, we are part of the universal web.

Denis Edwards is another theologian who promotes the kinship model of perceiving and relating with non-human nature by humankind. He holds that human beings are an element of the dynamic creation that continues to evolve. Edwards argues that

⁸ Johnson, *Women, Earth, and Creator Spirit*, 30.

⁹ Johnson, *Women, Earth, and Creator Spirit*, 30.

¹⁰ Johnson, Women, Earth, and Creator Spirit, 301-32.

We are intimately linked to the life-forms of our planet, and to the atmosphere, the soil, and the oceans. Our existence is encompassed by the mystery of God revealed in all the variety of creatures that surround us. We are part of them and they are part of us. All of us together reflect the limitless divine love that is our origin. We are born of the universe, made from stardust, part of evolutionary history of life on Earth and, as such, made in the image of God and kin to all the wonderfully diverse plants, insects, birds, and animals of our beautiful planet, and called to cultivate and care for the Earth and all its creatures.¹¹

Fascinatingly, both science and religion agree on the fact that we are all from the same source. From any perspective, one looks at it, whether from the ashes of the 'big bang' or the image and likeness of God, every created thing has originated from the same background.

Kinship from the Scientific Perspective

With the help of science, we have now understood how the universe came into existence. As Edwards explains, "one of the most far-reaching discoveries of the twentieth century is the idea that our universe is not static but expanding dynamically. Galaxies are moving away from one another at an increasing rate as the universe stretches and expands. Cosmologists can now trace the observable universe back to a time about fourteen billion years ago when it was unimaginably small, dense, and hot."¹²

Scientists describe the universe's coming into existence from just a single point and then expanding to what we have now as the big bang. As Uhl and Anderson maintain, "All the hydrogen now on Earth, including all the hydrogen in each of our bodies, was created fourteen billion years ago when the universe burst into being.

Hydrogen was created only in that big bang moment- never again since- and it was

¹¹ Denis Edwards, *Ecology at the Heart of Faith* (New York: Orbis Books 2006), 26.

¹² Edwards, *Ecology at the Heart of Faith*, 8.

hydrogen that subsequently gave rise to the first galaxies and first stars."¹³ The interconnected nature of all beings is fantastic.

Furthermore, while writing on hydrogen, water, and human beings, Uhl and Anderson postulate:

Consider the implications of this the next time you hold a glass of water. Given that all the hydrogen in that water is fourteen billion years old and that hydrogen is the most abundant atom in your body, how old are you? Your human age might be fifteen or fifty, but the essence of you, the stuff of you, is fourteen billion years old. In an atomic sense, it appears that we've all been here since the very beginning.¹⁴

The Phenomenon of "black holes" may sound scary and cannot be proven, but consider this,

Some scientists speculate that black holes- rather than being places of death and demise- might actually act as birthing sites for new universes. For example, astrophysicist John Gribbin speculates that the big bang may have been a moment in time/space when our universe was birthed out of a preexisting black hole in another universe. Viewed through this lens, it could be that our universe is just one among many universes, all linked together by "tunnels," akin to cosmic umbilical cords. The idea of a family of universes, or a "multiverse," though difficult to prove, is considered a distinct possibility by cosmologists today. ¹⁵

There is still a lot that science continues to unravel about our origins, and more so, a lot that sciences are yet to solve and help us to understand.

Carl Sagan, the famous astronomer and cosmologist observed that we are all composed of stardust. Studies on how planets, like Earth, and Stars, such as our Sun, are formed make us appreciate Sagan's observation:

Our sun came into being roughly 4.6 billion years ago, and you may be surprised to learn that it owes its existence to the *death* of preexisting stars that were formed when the universe was still relatively young. As those *first-generation stars* burned up all the hydrogen fuel in their cores, they generated heavier elements

¹³ Uhl and Anderson, *Developing Ecological Consciousness*, 10.

¹⁴ Uhl and Anderson, *Developing Ecological Consciousness*, 10.

¹⁵ Uhl and Anderson, *Developing Ecological Consciousness*, 10-11.

such as carbon, nitrogen, oxygen, calcium, and silicon that were released in a matrix of dust and gas. In cases where dying stars were really large, their death was marked by enormous explosions called *super-novae* that created the conditions for the birth of second-generation solar systems. Upshot: Without star death, new stars, like our Sun, and planets, like Earth, would not exist.¹⁶

Extensive attraction and coercion made hydrogen atoms fuse into helium atoms, which provoked enormous outbursts of energy that instigated the center to catch fire that formed the star. The Sun was subsequently born due to the immensity of the forces that came into play because of the cloud of hydrogen atoms.

On the formation of the Earth, Uhl, and Anderson quote Brian Swimmer and Mary Evelyn Tucker thus:

In the beginning, our infant Sun was completely surrounded by hydrogen, carbon, silicon and other elements disbursed by supernova explosions. As they drifted through space these elements would brush against each other and begin to cohere into tiny balls of dust. Over millions of years, these "planetesimals" continued accreting to each other and growing until they were the size of boulders and then as large as mountains. Not all collisions resulted in large bodies. Many were violent that they tore both bodies apart. But over millions of years these planetesimals continued to absorb all the loose material circulating about. [so it was that] our solar system, with its eight planets, its band of asteroids, and its one infant sun, slowly came into being.

It is remarkable to realize that, over immense spans of time, stellar dust became a planet. In the earliest time of the universe, this stellar dust did not even exist because the elements had not yet been formed by the stars. Yet hidden in this cosmic dust was the immense potentiality for bringing forth mountains and rivers, oyster shells and blue butterflies.¹⁷

Uhl and Anderson state that the sun has been burning brightly for almost five billion years, and according to astrophysicists, the sun has five billion years of hydrogen fuel still left to burn. They also note that scientists have come to understand how the sun works only in the twentieth century. ¹⁸ They also add that,

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¹⁶ Uhl and Anderson, *Developing Ecological Consciousness*, 11.

¹⁷ Uhl and Anderson, *Developing Ecological Consciousness*, 11-12.

¹⁸ Uhl and Anderson, *Developing Ecological Consciousness*, 12.

Without the Sun's warming radiation, temperatures on Earth would be hundreds of degrees below zero – far too cold for life to exist; without the Sun's rays, there would be no evaporation of water from oceans and leaf surfaces, and that would mean no rainfall, no hydrological cycle! Nor would there be photosynthesis. Yes, the Sun is, in effect, a giant generator that powers the winds, the water circle, photosynthesis, and ultimately, our very bodies. No wonder so many ancient people regarded the Sun with a sense of awe and reverence!¹⁹

On the origins of life on Planet Earth, Uhl and Anderson attribute it to the distance between the Earth and the Sun:

By remarkable good fortune, owing to its distance from the Sun and its size, Earth offers conditions that are ideal for life. For example, Earth is not so close to the Sun that its surface is scalded, as is the case with mercury, nor is Earth so far from the Sun that its life-giving water is perpetually frozen, as is the case with Jupiter. Likewise, Earth is not so large that its gravity holds a dense blanket of atmospheric gases that filter out sunlight, nor is it so small that it fails to hold onto a life-sustaining atmosphere.²⁰

Even though the Earth is well positioned now, according to them, "it came into existence as a fiery magma ball. As that ball slowly cooled over millions of years, vapor condensed into clouds and rain fell and fell for so long that oceans formed."²¹ They maintain their position on the likelihood that life first appeared in Earth's primordial seas.²² However, there are other theories about life's origins. One science-based approach called panspermia holds that life originated out in the space.²³ Another theory suggests "that the first complex organic molecules on Earth were produced with energy contributed by lightning and/or by the release of heat from deep-sea vents."²⁴ Based on all theories on the origin of life, Lynn Margulis, a microbiologist, speculates: "In the earliest days of the

¹⁹ Uhl and Anderson, *Developing Ecological Consciousness*, 13.

²⁰ Uhl and Anderson, *Developing Ecological Consciousness*, 13.

²¹ Uhl and Anderson, *Developing Ecological Consciousness*, 13.

²² Uhl and Anderson, *Developing Ecological Consciousness*, 13.

²³ Uhl and Anderson, *Developing Ecological Consciousness*, 13.

²⁴ Uhl and Anderson, *Developing Ecological Consciousness*, 13.

still lifeless Earth, such bubble enclosures separated inside from outside. Pre-life, with a suitable source of energy inside a greasy membrane, grew chemically complex . . . These lipid bags grew and developed self-maintenance. . . [and over time] acquired the ability to replicate more or less accurately."²⁵

However, notwithstanding the scientific theories, the origins of life at this time are still mysterious.²⁶ Nevertheless, Uhl and Anderson hold that:

Earth's first organisms, appearing approximately four billion years ago, were primitive forms of bacteria. It has been only in the last 10 percent of Earth's history – starting some six hundred million years ago – that more complex life forms have appeared, such as mosses, ferns, fungi, crustaceans, insects, amphibians, reptiles, and flowering plants. The first mammals came into existence just two hundred million years ago.²⁷

Meanwhile, specifically on the emergence of human beings, they assert,

Although humans are latecomers in this evolutionary saga, our origins actually extend all the way to back to the appearance of single-celled, bacterial life. That's right: our earliest ancestors were not primitive primates; they were bacteria! This might sound crazy, but how could it be otherwise? Life arose, evolved, and complexified until eventually our hominid form arose, but it all began with bacteria. And let's not forget the stars, because we wouldn't be here were it not for those stars that expired long ago, creating, in their dying, the materials that gave rise to our solar system and with it, those first bacteria that have led to *us!*²⁸

They conclude that, among many other things, the stories of the universe's origins show that it has been creating relationships. In our observation of how the planet has come about, numerous bonding is unavoidable.²⁹ Deepak Chopra states that "My body and the universe come from the same source, obey the same rhythms, flash with same storms of electromagnetic activity. . . so, it must be that the universe is living and breathing

²⁵ Uhl and Anderson, *Developing Ecological Consciousness*, 14.

²⁶ Uhl and Anderson, *Developing Ecological Consciousness*, 14.

²⁷ Uhl and Anderson, *Developing Ecological Consciousness*, 14.

²⁸ Uhl and Anderson, Developing Ecological Consciousness, 14.

²⁹ Uhl and Anderson, *Developing Ecological Consciousness*, 16.

through me. I am an expression of everything in existence."³⁰ This frank and accurate statement applies to all of us.

Edwards adds his voice to the debate about the origins of the universe when he states,

We human beings share a common history of life with all the other creatures of Earth. We carry within us a story of life that goes back to our pre-human ancestors in Africa, back to the trilobites of the Cambrian seas, and ultimately back to the first bacterial forms of life 3.5 billion years ago. This story is part of the larger story of the universe itself. The human community is born of the Big Bang, made from stardust, and part of the evolutionary history of life on Earth.³¹

He asserts that the story of our origins forms the foundation for a theological perspective of the human being.³²

Pope Francis has maintained that the big bang theory and human evolution do not contradict divine conviction: "The 'big bang,' that today is considered to be the origin of the world, does not contradict the creative intervention of God, on the contrary it requires it," he said. "The beginning of the world is not the work of chaos that owes its origin to something else, but it derives directly from a supreme principle that creates out of love," Francis added. He warned against seeing God as a magician in his creative actions: "When we read in Genesis the account of creation, we run the risk of imagining that God was a magician with a magic wand able to do everything, But that is not so." Francis added that the universe was not created in one event but "went forward for

³⁰ Uhl and Anderson, *Developing Ecological Consciousness*, 15.

³¹ Edwards, Ecology at the Heart of Faith, 13.

³² Edwards, *Ecology at the Heart of Faith*, 14.

³³ Reuters staff, "Pope Francis says Big Bang Theory does not Contradict Role of God," October 28, 2014,

^{2.} https://www.reuters.com/article/pope-creation/pope-Francis-says-big-bang-theory-does-not-contradict-role-0f-god-idINKBNOIH25120141028. 3/10/23. Pope Francis made this statement at his audiences with members of the Pontifical Academy of Sciences at the Vatican on October 28, 2014.

³⁴ Reuters, "Pope Francis says Big Bang Theory does not Contradict Role of God," 2.

³⁵ Reuters, "Pope Francis says Big Bang Theory does not Contradict Role of God," 2.

centuries and centuries, millennia and millennia until it became what we know today."³⁶ The Catechism of the Catholic Church acknowledges the efforts science has made toward our understanding of the origins of the universe and how these efforts lead to admiration for the creator:

The question about the origins of the world and of man has been the object of many scientific studies which have splendidly enriched our knowledge of the age and dimensions of the cosmos, the development of life-forms and the appearance of man. These discoveries invite us to even greater admiration for the greatness of the Creator, prompting us to give him thanks for all his works and for the understanding and wisdom he gives to scholars and researchers.³⁷

Having seen what science has said about the universe's origins and all in it, I will now turn to what the Christian tradition says about the planet's origins and inhabitants.

Kinship from the Christian Tradition Perspective

The Christian tradition holds that God created the world in six days. Christian scriptures teach, "In the beginning, when God created the heavens and the earth, the earth was a formless wasteland, and darkness covered the abyss, while a mighty wind swept over the waters" (Gen. 1:1-2). It was from this background that God commanded everything to come into existence. He created light, land, water, and vegetation.

Subsequently, God created all living creatures (Gen. 1:3-23). On the sixth day of creation, God said, "Let the earth bring forth all kinds of living creatures: cattle, creeping things, and wild animals of all kinds" (Gen. 1:24-25). The final act of creation was the making of man. "Let us make man in our image, after our likeness" (Gen. 1:26), God said. At the end of creation on the sixth day, "God looked at everything he had made, and

³⁶ Reuters, "Pope Frances says Big Bang Theory does not Contradict Role of God," 2.

³⁷ Catechism of the Catholic Church, Second Edition (Vatican: Libreria Editrice 1997) 283.

he found it very good" (Gen. 1:31). The beauty of God's entire creation is beautifully stated by Edwards thus:

In the opening chapter of Genesis, God is presented as delighting in the diversity of creatures and declaring them all to be good: the light, the seas, the dry land, seed-bearing plants, fruit trees, sun and moon, sea creatures and birds, cattle, creeping things, and wild animals of every kind. All the abundance and fruitfulness of creation come from God, who blesses all creatures and says, "Be fruitful and multiply on the earth" (Gen 1:22).³⁸

He maintains that life's buoyancy emanates from God's goodness: "The exuberance of life springs from the blessing of the creator. At the end of the sixth day, after the creation of humans in the image of God and the declaration of their dominion over other creatures, we are told. "God saw everything that he had made, and indeed it was very good" (Gen.1:31)."³⁹

God did not only confirm the goodness of all that he had created. He went further to command humans to care for other creatures and entered into a covenant with Noah that included non-human beings. Edwards puts it succinctly:

In the second chapter of Genesis, the newly formed human being is to "cultivate and care for" what God has given (Gen 2:12). Later, after the flood, the Creator enters into an eternal covenant with Noah that embraces every living creature (Gen 9:12-16). The rainbow is to be the enduring sign of this covenant with all living things.⁴⁰

In the Psalms, he says God is the one who nourishes and sustains all that he has created:

"You make springs gush forth in the valleys; they flow between the hills, giving drink to every wild animal" (Ps 104:10-11). It is God who gives the breath of life to every creature: "When you send forth your spirit they are created and you renew the face of the ground" (Ps 104:30). The variety of creatures manifests and expresses the beauty and wisdom of the Creator: O Lord, how manifold are your

³⁸ Edwards, *Ecology at the Heart of Faith*, 18.

³⁹ Edwards, *Ecology at the Heart of Faith*, 18.

⁴⁰ Edwards, *Ecology at the Heart of Faith*, 18.

works! Inn wisdom you have made them all; the earth is full of your creatures" (Ps 104:24).⁴¹

Edwards insists that God is the creator of all creatures; he sustains them, delights in their goodness, and further blesses them with fertility:

Human beings are a part of God's creation, interrelated with all other creatures. Yet called to act responsibly before God within creation in these texts and in many others, the Bible sees all creatures in relationship to God. It offers a fundamentally God-centered (*theocentric*) vision of reality rather than a human-centered (*anthropocentric*) one.⁴²

For him, the biblical theocentric vision forms the most suitable road map for developing an ecological theology of human beings in relationship to other creatures.

Although the Christian tradition upholds the unique position of humans as created in the image and likeness of God, it also sees the entire creation and the variations of life on Earth as an expression and manifestation of God. As Edwards says, "an eagle in flight, a wildflower in its delicate beauty, an ecosystem, and the biosphere of Earth can each in its own way be seen as a self-expression of the Creator, and thus as an image of God."

No wonder Francis asserts that

"Everything is related, and we human beings are united as brothers and sisters on a wonderful pilgrimage, woven together by the love God has for each of his creatures and which also unites us in fond affection with brother sun, sister moon, brother river and mother earth." Furthermore, Francis begins his encyclical, *Laudato Si*, with the canticle of St. Francis:

"LAUDATO SI', mi' Signore" - "Praise be to you, my Lord." In the words of this beautiful canticle, Saint Francis of Assisi reminds us that our common home

⁴¹ Edwards, *Ecology at the Heart of Faith*, 19.

⁴² Edwards, *Ecology at the Heart of Faith*, 19.

⁴³ Edwards, *Ecology at the Heart of Faith*, 14-15.

⁴⁴ Francis, Laudato Si. 92.

is like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us. "Praise be to you, my Lord, through our Sister, Mother Earth, who sustains and governs us, and who produces various fruit with colored flowers and herbs." 45

The Canticle of Brother Sun and Sister Moon by St Francis of Assisi is a perfect example of how the Christian tradition has viewed the relationship between humans, non-human beings, and their Creator.

The canticle goes thus:

Most High, all-powerful, all-good Lord, All praise is Yours, all glory, all honor And all blessings.

To you alone, Most High, do they belong, and no mortal lips are worthy to Pronounce Your Name.

Praise be You my Lord with all Your creatures,

Especially Sir Brother Sun,

Who is the day through whom you give us light.

And he is beautiful and radiant with great splendor,

Of You Most High, he bears the likeness.

Praise be You, my Lord, through Sister Moon and the Stars,

In the heavens you made them bright, precious and fair,

Praised be You, My Lord, through Brothers Wind and Air,

And fair and stormy, all weather's moods,

By which You cherish all that You have made.

Praised be You my Lord through Sister Water,

So useful, humble, precious and pure

Praised be You my Lord through Brother fire,

Through whom You light the night and he is beautiful and playful and robust And strong.

Praised be You my Lord through our sister,

Mother Earth

Who sustains and governs us,

Producing varied fruits with colored flowers and herbs.

Praise be you my Lord through those who grant pardon for love of you and Bear sickness and trial.

Blessed are those who endure in peace, By you Most High, they will be Crowned

Praise be You, my Lord through Sister Death,

From whom no-one living can escape. Woe to those who die in mortal sin! Blessed are they she finds doing Your Will.

No second death can do them harm. Praise and bless my Lord and give Him

⁴⁵ Francis, Laudato Si. 1.

And serve Him with great humility.

Amen⁴⁶

From scientific and Christian traditional perspectives, we have seen how we are all members of one family on earth, whether human or non-human. We all emanated from the same source and are members of one family. I will now explore how the social-political philosophy of *ya na angbian* can help humans be just to non-human nature.

Ya Na Angbian Tiv Social Political Philosophy as Remedy for the Maltreatment of Non-Human Nature

I have so far demonstrated how human beings have been maltreating non-human nature. I have also shown how the misinterpretation of Genesis 1:26 and a lack of proper understanding of the source of our being is leading to the Earth's maltreatment. I have also revealed some of the consequences of the Earth's maltreatment. Furthermore, I have traversed the scientific and Christian traditional angles on how all Earth's inhabitants are members of one family. Since we are members of one family, whether human or non-human, the Tiv social-political philosophy *ya na angbian* is a sure road map towards converting humans in their relationship with non-human nature. This philosophy which the Tiv people have practiced since pre-colonial times, is based on social justice. Justice for all Tiv people who have one ancestor and are all brothers and sisters of the same family. It is a sharing philosophy that promotes selflessness, cohesion, stability, progress, peace, and development. This philosophy has been responsible for checking corruption, nepotism, and greed. Nicholas Tughhemba aptly describes it:

⁴⁶ Catholic. Org, "Francis of Assisi Canticle," 3/10/2023. https://catholic.orgcanticleof brothersunandsistermoon.

It is in trying to enhance the ontological order for a more cohesive, stable and developmental society that the Tiv introduced the philosophy of *ya na angbian*. Literally, it means 'eat and give your brother'. This connotes what Julius Nyerere confronts in his political system of Ujamaa, which basically revolved around the indigenous practice of African Brotherhood, family assembly and being your brothers' keeper. This principle "demands fair and equitable distribution of social and political resources among the various segments of Tiv society." At the same time, it is a "Philosophy of fairness and altruism, equity and responsibility."

If this principle is applied in the relationship between humans and non-human nature, there will be no room for the naked dominance of nature and the ensuing damage being done. Furthermore, this planet belongs to both human and non-human nature. Hence, efforts will be seriously made to share the planet space among all brothers and sisters.

I agree with Tughhemba when he says, "Ya na angbian is a philosophy of social justice. It is based on the social nature of man and directed towards the accomplishment of common good."⁴⁸ It follows, therefore, that if the spirit of Ya na angbian is applied and a just and selfless attitude of humans toward non-human beings is the order of the day, all beings will benefit. An honest relationship among all God's creatures is beneficial to every creature. Negatively dominating and destroying non-human nature impacts all beings. In this regard, Francis noted:

One particularly serious problem is the quality of water available to the poor. Every day, unsafe water results in many deaths and the spread of water-related diseases, including those caused by microorganisms and chemical substances. Dysentery and cholera, linked to inadequate hygiene and water supplies, are a significant cause of suffering and of infant mortality.⁴⁹

An oppressive attitude towards non-human nature is, therefore, not suitable for any being.

The common good principle of *ya na angbian* should guide the relationship of the

⁴⁷ Tughhemba, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social and Political Philosophy," 1.

⁴⁸ Tughhemba, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social and Political Philosophy," 6.

⁴⁹ Francis, Laudato Si. 29

planet's inhabitants. Additionally, Tuhghemba maintains that, like Aristotle, Socrates, and Augustine, Thomas Aquinas' stand on Justice, which calls for giving everyone what is due to them, is totally in line with *ya na angbian* philosophy of the Tiv:

On the other hand, the object of justice is right. To be just is to respect the rights of others. Therefore, Saint Thomas concludes that justice entails: "The constant and perpetual will to render to everyone what is due to him." Aquinas reemphasis the idea of common good in community relation, when he stressed that the particular good of the individual member is related to the good of the entire community, such that whatever is the good of the part can be directed to the good of the whole. And he, who seeks the common good, seeks his good as well. Justice therefore directs man to the common good. ⁵⁰

Therefore, humans must accord non-human nature its rights because they are members of our family and planet community. In the long run, justice for all serves the entire universal community.

Tughhemba writes that Anshi Wang offers a beautiful conception of justice in Tiv's contemporary philosophy. Tuhghemba says, according to Anshi, "Justice is an act, an attitude, a system, a policy that is appropriate to man, the society, and the entire cosmic realities." Tughhemba continues:

Justice, for him, is built on the principle of appropriateness enshrined in harmony derived from the ontological principle of balance and proportion. And it is the most desired virtue of humanity for the purpose of advancing human collaboration and reduction of all forms of individualism and undue discrimination today. This understanding is seen in his conception of *ya na angbian*. This Tiv social-political philosophy is egalitarian and avoids individualism. This, he argued, expresses the collective, communal and brotherly piety for one another; hence the love of your brother goes a long way to explaining your benevolence towards him.⁵²

Furthermore,

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⁵⁰ Tughhemba, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social Political Philosophy," 9.

⁵¹ Tughhemba, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social and Political Philosophy," 15.

⁵² Tughhemba, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social and Political Philosophy," 15.

According to Anshi, "His needs are your needs and you strive to apportion to him what is his due." *Ya na angbian* discourages leaders from irresponsible act of selfishness, corruption and all the public vices that provoke and endanger the confidence of the masses in leadership. Differently put, *ya na angbian* situates the leader in a situation that he knows what could be given where. This altruism challenges the governed to be confident in leadership and resign from any confrontation to seek leadership position or destabilize the functional spirit of the leader. Even though positions of authority rotate, leaders that are fair and altruistic in the allocation of resources are supported for re-election for a second or third time in office. In his words, Anshi contended "...nobody is ready to contest for his/her removal after expiration of the tenure... This gesture is the result of fairness and equitability of the leader.⁵³

Applied to humans' relations with non-human beings, humans ought to act responsibly in the leadership position handed to them by God over other creatures. In Genesis 1:26, God commanded man to care for the other creatures he had caused to exist. The leadership position was not to dominate, plunder, and use non-human nature as they pleased. Humans' leadership position requires being fair, just, brotherly, and sisterly.

I have examined kinship as the cornerstone of all Earth's inhabitants in this chapter. I specifically looked at the scientific and Christian traditional perspectives on earth's origins and human life. Both support the fact that we humans and non-human beings are kin. Based on the kinship model, I demonstrated that the Tiv social-political philosophy *ya na angbian* could be applied as a remedy to achieving a new and harmonious relationship between humans and non-human beings. In the next chapter, I will examine what other bible passages, Church tradition, and the magisterium say about creation. I will further look at what Pope Francis has specifically contributed to the debate on the care of our planet.

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⁵³ Tughhemba, "Tiv Principle of Power Sharing Ya Na Angbian in Tiv Social and Political Philosophy," 15.

Chapter Four

A Turn Toward Creation: Theological Resources

In this chapter, I will explore creation in both the Old and New Testaments of the Bible. I will also examine how tradition, the magisterium, and recent experiences in the church have impacted the care for nature. In particular, I will dwell on Pope Francis' *Laudato Si's* positive influence on respect for creation. Pope Francis, in his encyclical, brings all creation's interdependence into focus. He calls for a new vision of God's entire creation living in a community of justice, harmony, and peace.

Old Testament Texts and the Care for Creation

Apart from redeeming the interpretation of Genesis 1:26-28 when it comes to the care for creation, several other Old Testament texts are ecologically friendly. For example, Genesis 3:31 says that after God had created the world, he looked at "everything" and found it very good. God experiences all that he made and concludes that it is beautiful. This bible verse says a lot about the value of creation and should be cited in discussions about the universe. If the creator of all creatures attested to the beauty of his entire creation and treated it with love, he could not command humankind that he fashioned in his image and likeness (Gen 1:27) to plunder what he found beautiful. As God's representative on Earth, man should reckon with other creatures as good and beautiful and protect them. God dominates his creation but not in a violent and exploitative manner. He dominates his creation in a loving and caring way. Humankind should dominate other beings as God does in justice and responsibility.

Psalms 104, 145, and 148 speak beautifully about creation and give every creature its place. These Psalms accent the beauty of creation, the need to tend the world, and the

importance of valuing all creatures as having a place in God's design. Additionally, in these Psalms, God is praised in his creatures. For example, Psalm 104:10-18 says,

You made springs flow into channels that wind among the mountains. They give drink to every beast of the field; here wild asses quench their thirst. Beside them the birds of heaven nest; among the branches they sing. You water the mountains from your palace; by your labor the earth abounds. You raise grass for the cattle and plants for our beasts of burden. You bring bread from the earth, and wine to gladden our hearts, Oil to make our faces gleam, food to build our strength. The trees of the Lord drink their fill, the cedars of Lebanon, which you planted, there the birds build their nests; junipers are the home of the stork. The high mountains are for wild goats; the rocky cliffs, a refuge for badgers.

Denis Edwards says, "Psalm 104 is the greatest biblical song of creation, celebrating God's original creation and ongoing providential care for creatures. It begins with God's creative work in the physical universe, and then turns to God's care for living creatures." Edwards declares:

This Psalm is a glorious hymn of praise to God for the abundance of life and the diversity of creatures— "O Lord, how manifold are your works! In wisdom you have made them all" (Ps 104:24). It is God who breathes life into all these creatures (Ps 104:30), and enables their ongoing existence and provides for them. They are represented not as dependent on humans, but as provided for directly by the creator. Humans are understood as fellow creatures in the midst of this world of God's creatures (Ps 104: 14-14). The Psalmist prays that the glory of the Lord might endure forever and that God's creatures might bring joy (Ps 104:31).²

Furthermore, Psalm 145:10-12 says explicitly, "All your works give you thanks, O Lord and your faithful bless you. They speak of the glory of your reign and tell of your great works, Making known to all your power, the glorious splendor of your rule."

Psalm 148 is a hymn of praise where the Psalmist joins with the whole creation to praise God:

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¹ Denis Edwards, *Christian Understandings of Creation: The Historical Trajectory* (Minneapolis: Fortress Press, 2017), 8.

² Edwards, Christian Understandings of Creation, 9.

Praise him, Sun and Moon;

Praise him, all shining stars.

Praise him, highest heavens,

You waters above the heavens,

Mountains and Hills,

Fruit trees and all cedars;

Animals wild and tame,

Creatures that crawl and birds that fly;

Kings of the earth and all peoples,

Princes and all who govern on earth;

Young men and women too,

Old and young alike.

Let them all praise the Lord's name,

for his name alone is exalted.

His majesty above earth and heaven. (Ps 148:1-3;9-13).

Edwards says, "More than thirty categories of creatures are addressed in this Psalm. Each is thought of as praising God in its own unique way, and humans are again seen as fellow creatures before God, this time within a community of creatures united in praise of their Creator."

The conversation between God and Job in the book of Job 38:1-41 is another Old Testament text that invites humankind to reflect on the reality of God as the source of all creation and, like God, cherish every created being. For Edwards,

While the first chapter of Genesis presents the human as uniquely made in the divine image, the book of job highlights a different aspect of the human in

³ Edwards, Christian Understandings of Creation, 9.

relation to the wider creation. It challenges human arrogance, putting humans in their place before God and before the rest of the creation. Although the book of Job is not always recognized as a creation text, God's response to Job contains the longest passage in the Bible about non-human creation.⁴

Job has an earnest discussion with his three friends about the problem of the suffering of the innocent (Job 3:1-31:40). Then Elihu reminds Job of the supremacy of the creator (Job 32:1-37:24). It is after these two scenes that God challenges Job through a series of questions about the universe: God sets the tone of the series of questions in this way,

Where were you when I founded the earth?

Tell me, if you have understanding.

Who determined its size? Surely you know?

Who stretched out the measuring line for it?

Into what were its pedestals sunk, and who laid its cornerstone,

While the morning stars sang together and all the sons of God shouted for joy?

Who shut within doors the sea, when it burst forth from the womb,

When I made the clouds its garment and thick darkness its swaddling bands? (Job 38:4-9)

Edwards points out, "God's response is not an explanation, but a series of questions that are put to Job. Job is cross-examined about God's creative action throughout the universe, and on God's continuous provision for all the animals, birds and sea creatures." To buttress his point, he quotes Richard Bauckham, who states, "What God does is to invite Job into a vast panorama of the cosmos, taking Job on a sort of imaginative tour of his creation, all the time buffeting Job with questions." God invites

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⁴ Edwards, Christian Understandings of Creation, 7.

⁵ Edwards, *Christian Understandings of Creation*, 7.

⁶ Edwards, Christian Understandings of creation, 7.

Job to look at creation differently. Furthermore, God spoke to Job out of the whirlwind (Job 38:1-40:2; 40:6-41:26). This is a sign that God resides and speaks to us through non-human nature. As Edwards observes,

God demands that Job observe the physical universe in its immensity and mystery, and asks Job who he thinks he is in relation to this vast creation, and particularly in relation to the God who creates it all. Job is called to ponder the creator of the land, the oceans, the dawn, the underworld, the light and darkness, the weather, and the constellations of stars: "Can you bind the chains of the Pleiades, or loose the cords of Orion?" (Job 38:31).

God also invites Job to contemplate birds and animals and ask himself who supports them: "Do you hunt the prey for the lion or appease the hunger of young lions, while they crouch in their dens, or lie in ambush in the thicket? Who provides nourishment for the raven when its young cry out to God, wandering about without food?" (Job 38:39-41).

Edwards says,

In this text, God points to ten animals and birds, describing them in detail, in species-specific ways. Each has its own integrity and stands in relationship to God its Creator in its own right, independent of humans. Job is called both to cosmic humility and to share in God's delight. In creatures. Bauckham says of these passages: "Surely they express God's sheer joy in his creatures, their variety and idiosyncrasies, the freedom of the wild ass and the massive strength of the wild ox and the horse, the soaring flight of the hawk and even the apparent stupidity of the sand grouse."

The challenge God poses in his questions to Job about his non-human creatures brings out the profound relationship between God and non-human nature.

Other Old Testament texts that demonstrate God's love and care for non-human nature are: "Look, the heavens, even the highest heavens, belong to the Lord, your God, as well as the earth and everything on it" (Dt 10:14); "The earth is the Lord's and all it

⁷ Edwards, Christian Understandings of Creation, 7-8.

⁸ Edwards, Christian Understandings of Creation, 8.

holds, the world and those who dwell in it" (Ps 24:1). "You shall not see your neighbor's donkey or ox fallen on the road and ignore it; you must help in lifting it up. If, while walking along, you come across a bird's nest with young birds or eggs in it, in any tree or on the ground, and the mother bird is sitting on them, you shall not take away the mother bird along with her brood" (Dt 22:4, 6). "The land shall not be sold irrevocably; for the land is mine, and you are but resident aliens and under my authority" (Lev 25:23). The Old Testament is full of evidence that God loves his non-human creatures and care for them. He could therefore not have commanded humans to use his creatures recklessly. To "till and keep" (Gen 2:15), is a command by God for mutual responsibility between humans and non-human beings. I will now explore a similar trend in some New Testament texts.

New Testament Texts and the Care for Creation

Many New Testament texts also show God's rightful place for all his creatures.

In his Letter to the Romans, Paul speaks of the entire creation waiting for redemption.

Paul writes:

For creation awaits with eager expectation the revelation of the children of God; for creation was made subject to futility, not of its own accord but because of the one who subjected it, in hope that creation itself would be set free from slavery to corruption and share in the glorious freedom of the children of God. We know that all creation is groaning in labor pains even until now; and not only that, but we ourselves, who have the firstfruits of the spirit, we also groan within ourselves as we wait for adoption, the redemption of our bodies. For in hope we were saved. Now hope that sees for itself is not hope. For who hopes for what one sees? But if we hope for what we do not see, we wait with endurance (Rom 8:19-25).

Edwards maintains that.

This text is fundamental for a theological understanding of the natural world because of its insistence that God's other creatures will participate in salvation with human beings. What is distinctive about this text, writes biblical scholar Brendan Byrne, is the way it "includes the whole of non-human creation within the sweep of salvation alongside human beings." He notes that Paul is building on a widespread biblical understanding that human beings and the rest of creation are closely linked in their destiny.⁹

He adds that Paul views non-human creation as partaking in the renewal and liberation of all things in Christ.¹⁰

Similarly, Colossians 1:15-20 portrays the origin of humans and non-human beings through God's wisdom. The text reads:

He is the image of the invisible God, the firstborn of all creation. For in him were created all things in heaven and on earth, the visible and the invisible, whether thrones or dominions or principalities or powers; all things were created through him and for him. He is before all things, and in him all things hold together. He is the beginning, the firstborn from the dead, that in all things he himself might be preeminent. For in him all the fullness was pleased to dwell, and through him to reconcile all things for him, making peace by the blood of his cross [through him], whether those on earth or those in heaven. (Col 1:15-20)

Concerning this text, Edwards writes:

Jesus Christ is the true image of the unseen God, the firstborn of all creation. As biblical hymns sing of God creating all things through wisdom, this hymn sings of all things as created "through" Christ and "in" Christ. It also speaks of all things created "for" Christ, as directed towards his fulfillment of the whole creation. The hymn repeats the words "all things" (*ta panta*) over and over again. It further reinforces the universal cosmic reach of Christ's mission by specifying that it involves everything on earth and in heaven, whether visible or invisible, and that it includes all cosmic powers. The whole universe is sustained and held together in Christ (see Wis 8:1; Heb 1:3). Christ is the first-born from the dead, the beginning of resurrection life for all things, the one through whom God reconciles the whole creation to God's self.¹¹

Other texts in the New Testament that touch on the issue of humans' relationship with non-human nature are: "Worthy are you, Lord our God, to receive glory and honor and power, for you created all things; because of your will they came to be and were created"

⁹ Edwards, *Christian Understandings of Creation*, 15.

¹⁰ Edwards. Christian Understandings of Creation. 15.

¹¹ Edwards, Christian Understandings of Creation, 16.

(Rv 4:11); "He has made known to us the mystery of his will in accord with his favor that he set forth in him as a plan for the fullness of times, to sum up all things in Christ, in heaven and on earth" (Eph 1:9-10). Having analyzed the issue of humans and non-humans in the Old and New Testaments, I will now turn to how the Catholic tradition has advanced the course of the Gospel of non-human nature.

Catholic Tradition and Non-Human Nature

The involvement of the church tradition in the relationship between humans and non-human beings can be best described as a double-age sword. As I have demonstrated in Chapter One of this thesis, the interpretation of some Genesis texts in speaking about our treatment of non-human nature on some occasions did some harm to non-human beings. However, some Saints like Francis of Assisi, Athanasius of Alexandria, Bonaventure of Bagnoregio, and Augustine of Hippo, and not long ago, the Jesuit theologian and scientist William Stoeger and Elizabeth Johnson, the consummate theologian, embraced nature and encouraged its care.

St. Francis of Assisi, the founder of the Franciscan spirituality, was born in 1182 in Assisi, Italy, and died in 1226. He was a Catholic friar, philosopher, preacher, and deacon. His canonization as a saint took place on July 16, 1228. St. Francis is popularly known for his "Cantle of Creatures." In it, he praises all creatures and speaks of "sister moon" and "brother sun." He had a fantastic insight required today, particularly by Christians, to respond to the current earth crises. Ilia Delio, Keith Douglas, and Pamela Wood assert that "an insight that St. Francis of Assisi grasped centuries ago, and his life and teachings offer Christians a spiritual grounding to help them respond to today's

environmental crisis." The Franciscan spirituality questions why humans, one kind of creature, are driving away other God's creatures into extinction. Delio, Douglas, and Wood maintain, "At its deepest root, our ecological crises derive from our belief that humans are somehow above or fundamentally distinct from—indeed, absolutely superior to—the rest of creation."¹³ Franciscans agree that this kind of mindset is not compatible with the worldview of Franciscans. Francis of Assisi demonstrated that other creatures are essential and that we are all connected as one family of creation. According to Delio, Douglas, and Wood, "With his marvelous respect for creatures of all kinds, for sun, moon, stars, water, wind, fire, and earth, Francis came to see that all creation gives praise to God. Brother sun and sister moon praise God just by being sun and moon. Brother wind and sister stars praise God by being wind and stars."¹⁴ Francis believed in the universal concept since Christ was the center of all things through the power of love. Unity with God, for him, meant unity with all beings, whether humans, plants, or animals. True love for him entailed union with all God's creatures. On his part, Paul Santmire believes that Francis was an "advocate for creation, as one might imagine a prophet becoming an advocate of the poor and the oppressed within the human community."15

Pope Francis had this to say about Francis of Assisi:

What is more, Saint Francis, faithful to Scripture, invites us to see nature as a magnificent book in which God speaks to us and grants us a glimpse of his infinite beauty and goodness. "Through the greatness and the beauty of creatures one comes to know by analogy their maker" (Wis 13:5); indeed, "his eternal

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¹² Ilia Delio, Keith Douglass Warner, and Pamela Wood, "Creation Care: A Love for Love", *National Catholic Reporter* (2008): 1.

¹³ Delio, Warner, and Wood, "Creation Care: A Love for Love", 1.

¹⁴ Delio, Warner, and Wood, "Creation Care: A Love for Love," 2.

¹⁵ Paul Santmire, *The Travails of Nature: The Ambiguous Ecological Promise of Christian Theology* (Minneapolis: Fortress Press, 1985), 109.

power and divinity have been made known through his works since the creation of the world" (Rom 1:20). For this reason, Francis asked that part of the friary garden always be left untouched, so that wild flowers and herbs could grow there, and those who saw them could raise their minds to God, the creator of such beauty. ¹⁶

Pope Francis adds further concerning Francis of Assisi,

Just as happens when we fall in love with someone, whenever he would gaze at the sun, the moon or the smallest of animals, he burst into song, drawing all other creatures into his praise. he communed with all creation, even preaching to the flowers, inviting them "to praise the Lord, just as if they were endowed with reason." His response to the world around him was so much more than intellectual appreciation or economic calculus, for to him each and every creature was a sister united to him by bonds of affection. That is why he felt called to care for all that exists. His disciple Saint Bonaventure tells that, "from a reflection on the primary source of all things, filled with even more abundant piety, he would call creatures, no matter how small, by the name of 'brother' or 'sister.'¹⁷

Pope Francis made it very clear that he could not write his encyclical *Laudato Si* without turning to St. Francis, an outstanding figure in ecology.

William R. Stoeger, the Jesuit theologian and scientist is another example of those who warmed up to nature and called for the care of creation. He was taught nature and loved the outdoors as a child. This love of the natural world continued into adulthood. It propelled him to make considerable contributions to science and faith, particularly as they complement each other and called for the care of creation.

William Richard Stoeger was born in Torrance, California, on October 5, 1943. He was raised in a traditional catholic family setting. He became a Jesuit priest. Stoeger was a theologian and scientist who worked with the Vatican Observatory in Rome, Italy, and Tucson, Arizona, U.S.A. He grew up "somewhat strict, but also with a certain

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¹⁶ Francis. Laudato Si. 12.

¹⁷ Francis. Laudato Si. 11.

openness and balance, particularly in school. I say this, particularly regarding the relationship between religion and science." He confessed that he wondered about religious revelation and nature surprises from early childhood. He was fascinated early in life by nature:

I loved the outdoors, the ocean, the mountains, the birds, insects, and animals, and had a great deal of opportunity to indulge my fascination with my friends and family and with cub scouts and boy Scouts. I always had various nature projects in progress. And I read a great deal about nature and the natural sciences. ¹⁹

Good enough, his family largely encouraged him:

There were close relatives who were involved and interested in engineering and science and were at the same time deeply believing Christians. They often spoke with me about their work and interests, about other scientific topics, and even about religion and its relation to scientific knowledge; I shared with them what we were learning and discussing in high school science and religious classes. None of them ever led me to perceive any particular conflict between what the two very different approaches to reality revealed. In fact, I never really experienced the two disciplines as two completely different approaches until later.²⁰

Interestingly, the rich tradition of Franciscan love for nature contributed immensely to building a solid foundation in Stoeger on what he would turn out to be later in life. He once confessed, "Our Franciscan religion teacher showed us how evolution was perfectly consistent with Christian belief and teaching, and emphasized that what science demonstrated could never be in conflict with faith and teaching, properly understood."²¹ Stoeger entirely credits his development and integration of the knowledge of the faith and the natural sciences to the people who were close to him early in life, like his family members, Franciscan high school teachers, and friends:

¹⁸ William Stoeger, "Reflections on the Interaction of my knowledge of Cosmology and my Christian Belief," *Center for Theology and Natural Sciences Bulletin*, 21. No.1 (Spring 2001): 10.

¹⁹ Stoeger, "Reflections on the Interaction of my Knowledge," 10.

²⁰ Stoeger, "Reflections on the Interaction of my Knowledge," 10.

²¹ Stoeger, "Reflection on the Interaction of my Knowledge," 11.

People close to me gifted me with the essential insight early so that it became almost an intuition. Not an unquestioned one; however, I was law-abiding but always very critical and skeptical. I read books in the area of the relationship between religion and science in high school and discussed such issues with my teachers and a few of my close high school friends, who were also fascinated by such questions. But the basic insight held up against the challenges and onslaughts we intentionally and unintentionally poured upon it.²²

By the time he became a Jesuit priest, his formal exploits in sciences, math, philosophy, and theology, as well as informal engagements, Stoeger maintained, gained him significant insight into the fact that "properly understood, there could be no essential conflict between the truth of the Gospel and the truth emanating from my scientific investigation." Stoeger emphatically stated: "My exposure to Franciscan spirituality in high school had helped me find God in nature." This is a clear sign that early education in the love of nature can help children properly understand the relationship between humans and non-human nature and have the right attitude to care for nature.

Athanasius of Alexandria, on his part, sees creation from the viewpoint of the cross. The scandal of the cross is where he starts the discussion on creation. "Those who mock the cross, he says, fail to understand that the crucified Christ is "the savior of the universe and that the cross was not the ruin but the salvation of creation." The word of the cross is the word of creation." He holds that God is beyond creaturely limits and comprehension but generous and available to all creatures:

There is, then, in Athanasius, a "simultaneous contrast and interplay" between God's radical beyondness and God's "goodness and loving kindness (*philanthopia*)." Creation is the relationship whereby the God beyond comprehension becomes the generous source of existence for finite created things.

²² Stoeger, "Reflections on the Interaction of my Knowledge," 11.

²³ Stoeger, "Reflections on the Interaction of my Knowledge," 11-12.

²⁴ Stoeger, "Reflection on the Interaction of my Knowledge," 12.

²⁵ Edwards, Christian Understandings of Creation, 46.

In Athanasius's view, generosity characterizes God's relations with creatures from the beginning. ²⁶

All creatures, for Athanasius, continue to exist and prosper because of God's goodwill, the source of their origin.

St. Bonaventure of Bagnoregio was a committed follower of St. Francis of Assisi. His exploits about creation are seen in his work titled *The Mind's Journey into God*, in which he explores the experience of God through the natural world. According to Edwards, Bonaventure considers the natural world around us to mirror its creator and that this can happen in two ways, which he describes in the first two steps on the journey to God:

In the first step, the mind finds God *through* creation, while in the second, the mind finds God *in* creation. In the first step, then, Bonaventure says that we "put the whole world of sense-objects before us as a mirror through which we may pass to God, the highest creative Artist." In this step, Bonaventure points consistently to three divine attributes, the power, the wisdom, and the goodness of the creator. These three attributes, he says, "shine forth" in created things, as we experience the world around us through bodily senses and our mind.²⁷

He says we see God in creatures when "we contemplate things as they are in *themselves*, in their orientation, their distinctiveness, and their finite limits." ²⁸

St. Augustine took an intense interest in the natural world and found it God's precious gift. Edwards describes Augustine's stand on scripture and the natural world this way:

Augustine was convinced that the truth of faith found in the scriptures and the truth about the natural world discovered by reason cannot ultimately be in

²⁷ Edwards, Christian Understandings of Creation, 113.

²⁶ Edwards, Christian Understandings of Creation, 47

²⁸ Edwards, *Christian Understandings of Creation*, 113.

opposition, because they spring from the one truth of God. Where there is an apparent conflict, he sees the work of the interpreter as a two-fold task: "So we should show that whatever they have been able to demonstrate from reliable sources about the world of nature is not contrary to our literature, while whatever they may have produced from any of their volumes that is contrary to this literature that is ours, that is, to the Catholic faith, we must either show some ease, or else believe without hesitation, to be entirely false. On the other hand, if there is well-based scientific evidence for a position, then the interpreter has the task of showing how this might be compatible with biblical faith. On the other hand, if a clear teaching of the Christian faith is contradicted by a scientific claim, then the interpreter, if he or she can, must show the inadequacy of the scientific account, or if this is not possible at least hold to the truth of faith.²⁹

Augustine dismisses rationalism that has no place for religion and religion that rejects pieces of evidence from the scientific investigation.

Elizabeth Johnson calls for a new theological turn that pays attention to the earth. She maintains that theology has to reflect the interconnectivity of humans and non-human nature. She holds the view that "while early Christian and medieval theologians took it for granted that theology deals with three major areas, God, humanity, and the world, Western theologians, particularly since the reformation, have focused on God and the human, and left out the natural world." Johnson says theology must embrace the natural world because of the exceptional growth in sciences, especially in evolutionary biology and cosmology. She has consistently emphasized that,

The universe of creatures is thus the dwelling place of God. And God dwells in creatures as that which continuously enables their existence and their becoming. This continuous creation of each entity is, then, an absolutely unique relationship. For each creature, it is "a certain relation to the creator as to the principle of its being." Creatures participate not only in the divine being but in the divine goodness, and they represent this goodness in their wonderful diversity: "the whole universe together participates in the divine goodness more perfectly, and

²⁹ Edwards, Christian Understandings of Creation, 71.

³⁰ Edwards, Christian Understandings of Creation, 272.

³¹ Edwards, Christian Understandings of Creation, 272.

represents it better than any single creature could. The biodiversity of our planet, then, manifests the goodness of God that is beyond imagining.³²

Johnson believes the universe is God's dwelling place and dwells in all creatures he constantly nourishes. Having looked at the Catholic Church Tradition, I will now explore the role of the magisterium in promoting the care of our common home.

The Magisterium and the Care for Creation

Over the years, the teaching office of the Church has also impacted the drive for humanity to have a responsible attitude toward creation, for example, in Pope Francis' *Laudato Si*, which I have been citing. The first significant Church document to touch on the issue of nature destruction and its impact on human beings was the papal apostolic letter, *Octogesima Adveneniens*, in 1971 by Pope Paul V1. He mentions the negative approach to the environment. Francis referred to this fact when he said, in 1971, eight years after *Pacem in Terris*, Saint Pope Paul V1 referred to the ecological concern as "a tragic consequence" of unchecked human activity: "Due to an ill-considered exploitation of nature, humanity runs the risk of destroying it and becoming, in turn, a victim of this degradation." 33

In the letter, Paul called on Christians to participate and contribute to ending the numerous problems facing particular communities in the world. He discussed urbanization and, for the first time, mentioned the issue of the environment.

However, it was in 1990 that the Church teaching authority started taking issues of ecology seriously. Before then, "It is a fact of recent history that the Church has been

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³² Edwards, *Christian Understandings of Creation*, 277.

³³ Francis, Laudato Si. 4

slow to recognize the gravity of the ecological problems of the earth."³⁴ In 1990, John Paul II, in his papal message for World Peace Day, called the world's attention to the lack of respect for nature. He said the "ecological crises is a moral problem" and identified a human vocation to participate responsibly in God's creation."³⁵ He stressed the interconnectedness of all beings and reminded humanity of our responsibility toward future generations while noting the consequences of interfering negatively with the ecosystem. Additionally, in 2002, John Paul and Patriarch Bartholomew signed a joint declaration on environmental ethics in the spirit of ecumenism on ecological issues. In it, they expressed worry about human hardship and "consequences for humanity and for all creation resulting from the degradation of some basic natural resources such as water, air, and land, brought about by an economic and technological progress which does not recognize and take into account its limits."³⁶

On his part, Pope Benedict XV1, in his 2009 encyclical *Caritas in Veritate*, drew attention to the development, rights, and duties of the people and their environment: "Concerns for the environmental degradation as a part of disordered economic and political relationships, an emphasis on interrelated human and environmental ecologies, and the obligations of highly developed nations to take up duties of effectual solidarity are all themes that appear in *Caritas in Veritate*." "37

Meanwhile, during his papacy, Benedict highlighted the "ideas of authentic or integral development, human ecology, and environmental degradation and sensitivity to

³⁴ Christiana Zenner, *Just Water: Theology, Ethics, and Fresh water crises* (New York: Orbis Books, 2018), 4 ³⁵ Zenner, *Just Water*, 11.

³⁶ Zenner. Just Water. 12.

³⁷ Zenner, *Just Water*, 12-13.

the vulnerable and suffering in an economic globalization and technical power."³⁸ John Paul and Benedict's papacies were visible in promoting the concerns of the earth and its inhabitants. Nevertheless, Pope Francis is the one who has made the most impact in calling not just Christians but the whole world to the need to stop doing damage to non-human nature and care for it.

Pope Francis and the Care of our Common Home

Pope Francis has enormously impacted raising awareness and calling for action in the face of current ecological crises. His contributions partly stem from his background as a priest and bishop in his home country Argentina. Christiana Zenner comments on this background thus: Prior to his election to the papacy, Cardinal Bergoglio had witnessed and engaged in situations of extreme poverty and the impacts of environmental degradation during his years in South America. And his pastoral experiences overlapped temporarily with the rise of liberation theology.³⁹

Francis' encyclical *Laudato Si*. has attracted praise from religious and non-religious individuals and groups worldwide. In the encyclical, he points to the degrading state of the environment due to human activities and their impact, particularly on the poor. He calls for caring for our common home for the good of non-human nature and future generations. In one of his appeals, he said,

The urgent challenge to protect our common home includes a concern to bring the whole human family together to seek a sustainable and integral development, for we know that things can change. The creator does not abandon us; he never forsakes his loving plan or repents of having created us. Humanity still has the ability to work together in building our common home. Here I want to recognize,

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³⁸ Zenner. *Just Water.* 12.

³⁹ Zenner. Just Water. 13.

encourage and thank all those striving in countless ways to guarantee the protection of the home which we share. Particular appreciation is owed to those who tirelessly seek to resolve the tragic effects of environmental degradation on the lives of the world's poorest. Young people demand change. They wonder how anyone can claim to be building a better future without thinking of the environmental crisis and the sufferings of the excluded.⁴⁰

Pope Francis addresses various ecological issues in *Laudato Si*, from what is happening to the planet to the biblical perspective of creation and the human roots of our ecological crises. He also addresses the issue of integral ecology and how we should approach and carry out actions to protect the environment and humanity. He stands out as the first Catholic pontiff to address some of these issues on a more serious note, even to the extent of dedicating an entire encyclical to it.. Francis has maintained that creation is connected, so what affects one affects others so that when one aspect suffers, the others also suffer:

The human environment and the natural environment deteriorate together; we cannot adequately combat environmental degradation unless we attend to causes related to human and social degradation. In fact, the deterioration of the environment and of society affects the most vulnerable people on the planet: "Both everyday experience and scientific research show that the gravest effects of all attacks on the environment are suffered by the poorest." For example, the depletion of fishing reserves especially hurts small fishing communities without the means to replace those resources; water pollution particularly affects the poor who cannot buy bottled water; and rises in the sea level mainly affect impoverished coastal populations who have nowhere else to go. 41

Further on the interconnectivity of humans and non-human beings, and indeed, the dependence of humans on non-human beings for their existence, Francis says,

Each organism, as a creature of God, is good and admirable in itself; the same is true of the harmonious ensemble of organisms existing in a defined space and functioning as a system. Although we are often not aware of it, we depend on these larger systems for our own existence. We need only recall how ecosystems interact in dispersing carbon dioxide, purifying water, controlling illnesses and epidemics, forming soil, breaking down waste, and in many other ways which we overlook or simply do not know about. Once they become conscious of this, many

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⁴⁰ Francis. *Laudato Si.* 13.

⁴¹ Francis, Laudato Si. 48.

people realize that we live and act on the basis of a reality which has previously been given to us, which precedes our existence and our abilities.⁴²

Francis consistently teaches that humans are not separate from nature but part of it.

Realizing this will help humans be just in their dealings with non-human nature. He acknowledges the efforts the worldwide community has made in combating earth damage while at the same time recognizing that "many efforts to seek concrete solutions to the environmental crisis have proved ineffective, not only because of powerful opposition but also because of a more general lack of interest." He has, therefore, appealed for "a new dialogue about how we are shaping the future of our planet. We need a conversation that includes everyone, since the environmental challenge we are undergoing, and its human roots, concern and affect us all."

Francis has requested that every available resource be deployed to understand better the connection between humans and non-humans and a harmonious relationship: "Everyone's talents and involvement are needed to redress the damage caused by human abuse of God's creation. All of us can cooperate as instruments of God for the care of creation, each according to his or her culture, experience, involvements and talents."

Drawing upon the Tiv social-political philosophical justice system to which I have been referring in this thesis demonstrates how Nigerians, too, have a contribution to make. That is, how to help us all appreciate that humans and non-humans are one nature and need a cordial relationship. This attitude and virtue is a fantastic response to the pope's appeal to use every available resource to encourage action for the care of our

⁴² Francis, *Laudato Si*, 140.

⁴³ Francis, *Laudato Si*, 14.

⁴⁴ Francis. Laudato Si. 14.

⁴⁵ Francis, Laudato Si, 14.

common home. I am not conversant with what the Catholic Bishops' Conference in Nigeria has done towards promoting a healthy relationship between humans and non-human nature. However, it is something that can be done and this thesis could be a step in helping the Church in Nigeria in this direction. The Nigerian culture has a long-standing tradition of respect for non-human nature, such as the reverent disposition towards mountains. This tradition of respect for non-human nature could be a platform for ecumenical cooperation toward caring for non-human nature. I hope to organize a retreat for Nigerians in the San Francisco Bay area on caring for non-human nature shortly.

In this chapter, I have explored biblical texts that are ecologically friendly. I also examined the Church tradition that sees the clear connection between humans, non-humans, and God. The magisterium in relationship with the care of creation was scrutinized too. I finally looked into the immense contributions of Pope Francis to the call for the care of creation. I will now proceed to the conclusion to explore my thesis journey briefly.

Conclusion

The primary purpose of this thesis has been to use the Tiv social-political philosophy *ya na angbian* as a remedy to the misinterpretation of "subdue and have dominion" in Genesis 1:26. As I demonstrated in Chapter One, the backdrop for this entire project has been the destruction of non-human nature by human activities. In the same chapter, I explained that the misinterpretation of Genesis 1:26 partly led to the earth's destruction over the decades. *Ya na angbian* is a remedy to the misunderstanding of Genesis 1:26.

I am not under any illusion that I have covered all the aspects concerning Earth's destruction or the misinterpretation of biblical texts about the relationship between human beings and non-human nature. A lot more can be covered, and I hope that further research can explore these areas. Later, in conclusion, I will identify the areas I did not cover that other researchers could explore. This thesis serves as a springboard to other projects.

However, I have used Steven Bevans's anthropological model of contextual theology to show that the cultural wisdom of the Tiv people, *ya na angbian*, can be applied to the relationship between human and non-human nature to ensure a harmonious and beneficial relationship for the good of all God's creatures of God. According to Bevans.

... this model is anthropological in the sense that it makes use of insights into the social science of anthropology. By means of this particular discipline, the practitioner of the anthropological model tries to understand more clearly the web of human relationships and meanings that make up human culture and in which is present, offering life, healing, and wholeness. This second sense of the anthropological model points to the fact that the main emphasis of this approach to contextual theology is on culture. For this model, it is particularly in a study of,

and sympathetic identity with, a people's culture that one finds the symbols and concepts with which to construct an adequate articulation of that people's faith.

In this sense, the Tiv social-political philosophy *ya na angbian* is a vehicle for using culture to deepen the peoples' faith in God's command as it concerns the care of creation.

The family sharing and caring principle can be extended to non-human nature. This thesis is addressed to all Nigerian Christians. I hope that non-Christians, too, will find this beneficial to the extent that it attempts to contribute to the Christian sense of the particular contributing to the universal.

This study has discussed, established, and arrived at the following conclusions:

Massive damage has been done to non-human nature, and the damage has continued on an even bigger scale. Various factors are responsible for the damage; one is the misinterpretation of Genesis 1:26. Over the decades, people have viewed other created beings as things to be used at will, selfishly, and indiscriminately. Humans have primarily mistreated non-human nature.

I also established that the misinterpretation of Genesis 1:26 and the resultant destruction of the earth has also affected human beings. I extensively displayed how Nigerians, particularly in the Niger Delta, suffer the consequences of Earth's destruction. We are connected, so any damage done to the Earth will affect humans as well.

I called for the conversion of the heart from Earth's maltreatment. I did not only call for conversion but indicated why conversion is a moral imperative and not just a duty. I also showed the significance of transformation to a more sustainable relationship between humans and non-humans. A complete reorientation in humans' attitude toward

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¹ Stephen B. Bevans, *Models of Contextual Theology* (New York: Orbis books, 2002), 55.

non-human nature is a must if we must continue to have a conducive environment for the existence of all creatures.

Additionally, I clarified the historical concepts of subdue and have dominion and concluded that their interpretations, in many instances, need to be corrected. Critically analyzed, the Hebrew, Greek, Latin, and Aramaic texts do not back the misinterpretation that Genesis 1:26 witnessed for a long time. That notwithstanding, I demonstrated that the interpretation of a biblical text could not be made in isolation from similar texts. It is also crucial to consider the context for biblical texts to be correctly interpreted.

From both scientific and Christian traditional perspectives, I established that humans and non-humans have the same origin. It is a beautiful thing that science has helped us to understand that we are all interconnected by our same heritage. The Christian tradition also agrees with this, as the bible tells us God is the source of every created being. Since all created beings are kin, humans should not destructively dominate non-human nature. All creatures are interrelated, so if something affects non-humans, it will eventually affect humans.

Furthermore, I examined the Tiv social-political philosophy *ya na anbgian*, which is the tool for social justice within the Tiv family. I concluded that the same concept should be applied to the relationship between human and non-human nature. The Tiv family can use this principle for fairness and justice to maintain cohesion, peace, and harmony; the same can be applied to the more prominent universal family for cohesion, harmony, and peace among all created beings.

Moreso, I established that both the New and Old Testaments of the Bible speak of a connected relationship among all God's creatures. I also indicated that the tradition of the Catholic Church recognizes the interdependence of all created beings and has promoted care for all that God has created. Further, I examined what the Church magisterium has done and is still doing to encourage care of non-human nature.

Throughout this thesis, I quoted Pope Francis' *Laudato Si: On the Care of our Common Home*. I showed how in the encyclical, Francis explores all areas of Earth's destruction and identifies the urgent need to change course. Pope Francis, in many respects, aligns the Church's teaching with scientific postulations about the universe's origins and human evolution. I also established that this thesis and the use of the Tiv social-political Philosophy *ya na angbian* is a response to Francis' call that every resource should be used to respond to his call for the care of our common home.

Despite all this thesis has achieved, other related aspects have emerged and need to be explored, which I could not traverse in this research and writing. These areas include:

Other cultural wisdom—there are different forms of cultural knowledge, such as the Tiv *ya na anbgian*, that could also be used to promote care of the planet.

Other consequences of Earth's destruction—there are many pieces of evidence arising from the damage humans do to the Earth other than the ones I mentioned, which could be delved into.

The lack of massive response to the call for care of the Earth—it is surprising that despite the mounting evidence of the consequences of non-human nature destruction and the loud call for a change of attitude, a vast majority of the world's population is not interested in the call for the care of the Earth. This is an area that needs to be explored.

The church is making efforts to confront Earth's destruction. This can be seen on the *Laudato Si* action platform, an initiative of the Vatican. Properly studying and analyzing these efforts will help promote the care for our common home.

I conclude this thesis with a prayer by Pope Francis for our Earth:²

A Prayer for Our Earth

All-powerful God, you are present in the whole universe and in the smallest of your creatures.

You embrace with your tenderness all that exists.

Pour out upon us the power of your love, that we may protect life and beauty. Fill us with peace, that we may live as brothers and sisters, harming no one.

O God of the poor, help us to rescue the abandoned and forgotten of this earth, so precious in your eyes.

Bring healing to our lives, that we may protect the world and not prey on it, that we may sow beauty, not pollution and destruction.

Touch the hearts of those who look only for gain

² This prayer appears in Francis' encyclical Laudato Si on page 158.

at the expense of the poor and the earth.

Teach us to discover the worth of each thing, to be filled with awe and contemplation, to recognize that we are profoundly united with every creature

as we journey towards your infinite light. We thank you for being with us each day. Encourage us, we pray, in our struggle for justice, love and peace.

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