

The Theology and Sustainable Development Nexus: Connecting the Dots

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Abstract

There is a vibrant nexus between theology and sustainability. The genesis of the world, nature, humans and the entire creation are theologically established. God in His sovereign nature created and shaped the world and its species to be "beautiful". He bestowed upon His highest creation (man) the responsibility and mandate of environmental stewardship, to watch over, enjoy and preserve God's creation. Human subsistence therefore directly depends on God's diverse creation. Man's responsibility to survive on nature and ensure surveillance and the preservation of God's creation fits neatly into the philosophy of sustainability. Man's environmental stewardship and prosperity (multiply) while, preserving the natural and biological diversity of God's creation, implies that man could pursue his own development without jeopardizing the prospects of successive generations to develop and rely on the same nature for their own survival and development. Using the theory of sustainability, this paper examines the nexus between Theology and Sustainable Development. Establishing the correlation between both notions, this research explores various ways in which sustainability is rooted in theology and/or how both philosophies are intertwined.

Keywords: Theology, Sustainability, Sustainable development, Nature, Creation, Green Future

Introduction

The fundamental research question that is addressed in the corpus of this paper is: Is Sustainable Development Rooted in Theology?. It is Biblically fact that in the beginning of time, God created the world. He "separated the light from the darkness, marked the seasons, days and year and separated light from darkness"². God crowed His creation by creating man in His "image and likeness". He blesses His creations and instructed it to be "fruitful and increase in number; to fill the earth and subdue it". The Biblical account in Genesis records that God gave man the authority to "rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground"³.

Today's preoccupation about preserving nature and wildlife as espoused by the doctrine of sustainable development is firmly rooted in foundations of theology. At the genesis of creation, it is underlined that God gave mankind "every seed-bearing plant on the face of the whole earth and every tree that has fruits with seeds in it. The plants that forest the earth were ordained to serve as food for humankind "I give every green plant for food"⁴.

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² Genesis Chapter one

³ All of the above Biblical references are derived from Genesis chapter one. The biblical source explored for this paper is the New International Version of the Holy Bible, translated and printed in 1984 by the International Bible Society, in Colorado Springs, USA, pp.1.

⁴ See Genesis Chapter one, verses 29-30.

This holds true with “all the beasts of the earth and all the birds of the air and all the creatures that move on the ground – everything that has the breath of life in it”⁵. Humanity’s very subsistence depends on God’s natural creation. Therefore, man also had the existentialist responsibility to preserve the beasts, plants, birds of the earth and nature as a responsibility bestowed on him by his Creator, but also for his very survival. In such a context the culture of sustainability imposed itself in resource management. Using up, and exterminating God’s creation would be perilous to survival of mankind and his offspring.

The significance of nature to human origin and existence is equally established by the fact that “the Lord God formed man from the dust of the ground”⁶. Because biblical man owes his roots to nature and has to survive by it, while overseeing it, imposed upon humanity the responsibility to preserve nature sustainably, for himself and the succeeding generations. Thus, today’s sustainable development movement is no coincident. The preservation of the natural environment as recommended by the dictum of sustainability therefore has a Biblical resonance. Because God is all-knowing, He foresaw that man’s health and survival will be tied to a healthy environment. That also explains why the Lord God “planted a garden in the East in Eden” and “made all kinds of trees grow out of the ground that were pleasing to the eye and good for food”. Man’s responsibility to preserve nature is emphasized when “the Lord God took man and put him in the Garden of Eden to work it and take care of it”⁷. Biblically and in line with the dictum of sustainable development, man is the steward of his environment.

Every nation state on the face of the earth recognizes the importance and relevance of sustainable development, as a panacea to protect the planet and its resources. Such recognition is rooted in the thinking that, while current generations have to benefit from the exploitation of various natural and animal resources created by God for their subsistence and wellbeing, natural resources, especially finite resources various animal species and the planet that hosts them, have to be preserved for future generations as well. This highlights God’s Divine mission to humanity to look after the garden and to preserve the species he created for man’s subsistence.

1. Elucidating Theology and Sustainable Development

Theology refers to the study of the nature of God, religion and religious beliefs⁸. Christian Theology embodies the human attempt to understand God as He is revealed in the Bible. Webster’s Dictionary (2005) views Theology as “the science of God or religion; the science that treats the existence, character and attributes of God” (Webster, 2005:1501). Theology owes its etymology from the Greek word *theos* meaning God and *logos* meaning the word about or the study of God as He is revealed⁹. The science of Theology teaches and establishes that God is the creator and sustainer of the universe and everything it holds. He is the Alpha and Omega and holds command over the beginning and the end of the existence of everything on the face of the earth. Thus, is depicted in the Holy Scriptures as the “Great I Am”¹⁰, a self-sufficient God. Through Theology, the Christian everyman finds and knows his origin is in Christ. The Christian understanding of Theology leads him to understand his Christ-like nature, and to live a life of love and obedience to God the creator of the universe. Theology therefore provides the opportunity for an intense personal study of God. It provides the opportunity for humanity to know the person of God. Christians and humanity as a whole can only love and obey God because they get to know Him as He is portrayed by the canon of Theology.

On its part, the notion of Sustainable Development (SD) gained prominence in international discourse in the 1980s. SD refers to development that does not destroy or undermine the ecological, economic or social basis on which continued development depends (Noel et al, 1994: 6). Brundtland et al (1989) contend that SD is development that lasts and that meets the needs of the current generation, without compromising the prospects of future generations in meeting their own needs. Intergenerational survival has religious underpinnings. Humanity has the ability to make development sustainable, to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.

⁵ See Genesis Chapter one, verses 29-30.

⁶ See Genesis chapter two, verse 7, pp.2.

⁷ Ibid verses 7-9; 15 -16.

⁸ Collins Cobuild (2004): Advanced Learners English Dictionary, the University of Birmingham, Harper Collins Publishers. pp. 1501.

⁹ The personality of God is elaborately portrayed in 2 Timothy 3, Verses 16 and 17.

¹⁰ Moses depicts and describes God in Exodus chapter 3 verse 4 as a self-sufficient God.

The concept of sustainable development does imply limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities (Brundtland et al, 1989:8).

The effective management and improvement of technology and social organization, driven by the right policies could pave the way for "a new era of economic growth". Thus, widespread poverty is no longer inevitable if policies that nurture, and favour growth are adopted and implemented. Theologically, God authorized human prosperity. Poverty is therefore an evil in itself. SD "requires meeting the basic needs of all and extending to all the opportunity to fulfill their aspirations for a better life" (Brundtland et al, 1989:8). This interpretation of SD highlights the focus of the concept on the population, generic resources, the loss of species, food security, energy, industry and human settlement. The aforementioned aspects of development cannot be addressed in isolation. A holistic approach is relevant in its own right.

Within the ambit of the SD debate, Agenda 21 epitomizes a global programme of action for SD. The Rio Declaration on Environment and Development and the proclamation of principles for the sustainable management of forests were adopted by more than 187 Governments at the United Nations Conference on Environment and Development, during the Earth Summit in Rio De Janeiro, Brazil, from 3 to 14 June 1992. This effort fulfilled the mandate of the conference as underlined by the UN General Assembly, under the chair of Brundtland, to "devise integrated strategies that would halt and reverse the negative impact of human behaviour on the physical environment and promote environmentally sustainable economic development in all countries" (Brown et al, 1994: 6).

Human evolution is viewed Biblically along the lines of generational continuity. The generation of prominent and faithful biblical character such as Abraham and Noah¹¹ were favoured by God to be fruitful and multiply. The notion of SD rests on the philosophy that humanity has the ability to make development sustainable, and meets its immediate needs, while creating the prospects for future human generations to meet their own needs. SD therefore requires meeting the basic needs of all and extending to all the opportunity to fulfill their aspirations for a better life. This is crucial given that a world in which poverty is endemic is prone to ecological and climate disasters. SD does not imply limitations imposed by the present state of technology and social organization on environmental resources and the biosphere to absorb the effects of human activities. Both technology and social organization can be managed and improved to make way for a new era of economic growth (Brundtland et al, 1989: 8).

Sustainability in the context of theology should be perceived as the long-term maintenance and enhancement of human well-being with finite planetary resources, bearing in mind that SD is a triple bottom line of economic progress, environmental progress and social progress. In other words SD has environmental, economic and social dimensions. One can therefore argue that SD is the long term maintenance and enhancement of human wellbeing within finite planetary resources. It entails living within our environmental limits, ensuring a strong, healthy and just society, achieving a sustainable economy, using sound science responsibly and promoting good governance and good environmental governance. The commitment to the principles of SD entails the demonstration of environmental ethics, even as counties pursue industrialization, economic development and social improvement.

2. Man's Natural Origins & Environmental Sustainability

The spiritual origins of man are biblically well-established. Man's recognition of his spiritual origins validates humanity's implicit responsibility to achieve development and ensure his welfare in the cosmos created for his welfare by God and to achieve his welfare and development without destroying the natural environment. The human and natural environment attests the majestic nature of God through his creation and underscores God's commitment to man's welfare. Numerous Bible verses attest to the fact that God is the author of the environment and the universe, nature and its entire creation: "The heavens are yours, and yours also the earth; you formed the world and all that is in it" (Psalms 89:11). The Psalmists consistent acknowledgement of God as the supreme creator is confirmed by God himself: "It is I who made the earth, and created mankind upon it.

¹¹ It is biblically established that Noah was a righteous and blameless man that was blameless among the people of his time and walked with God. Thus, God preserved his family, blessed Noah and his sons, saying to them to "be fruitful and increase in number and fill the earth" (Genesis 9 v1).

My own hand stretched out the heavens; I marshaled their starry hosts" (Isaiah 45:12). "With my great power and outstretched arm I made the earth and its people and the animals that are on it and I give it to anyone I please" (Jeremiah 27:5).

The environmental dimension of sustainable development advocates the protection and preservation of the natural environment; animals and birds, as well as the human environment, our surrounding. God is glorified through His creation of nature, represented in the plants and animal species and the environment as a whole. God is glorified in his creation that He judged as beautiful. Given the beauty of God's creation, it has to be sustainably managed by current generations for the benefit of future generations as well. As a result, God bestowed onto man whom He created in His own image and for a relationship with Him, the responsibility to enjoy the diversity of His natural creation, while preserving it as well. God dwells in nature and Biblically it is in the quiet of nature, the garden that He had the habit of communicating with the first man Adam. Thus, there is a strong connection between God the Creator and the environment and nature as presented by the environmental dimension of sustainable development. It is God "who made the heavens and the earth and the sea and all that is in them"¹². As creator of nature and the earth, God is believed to dwell in nature. "The God who made the world and all things in it, since He is Lord of heaven and earth, does not dwell in temples made with hands; "Worthy are You, our Lord and our God, to receive glory and honor and power; for You created all things, and because of Your will they existed, and were created."¹³

God's creation of our environment is well documented in Genesis 1:11-12. Then God said, "Let the earth sprout vegetation, plants yielding seed, and fruit trees on the earth bearing fruit after their kind with seed in them"; and it was so. The earth brought forth vegetation, plants yielding seed after their kind, and trees bearing fruit with seed in them, after their kind; and God saw that it was good (Genesis 2:4-9). The Biblical account of God's creation of the heavens and the earth are all too vivid. It is documented in Psalms 104:14-16 that God "causes the grass to grow for the cattle, and vegetation for the labor of man, so that he may bring forth food from the earth, and wine which makes man's heart glad, So that he may make his face glisten with oil, And food which sustains man's heart. Therefore, not only is the earth is the Lord's, and all it contains, the world, and those who dwell in it belong to the Lord (Psalms 24:1). As creator of the universe God "laid the foundation of the earth, set its measurements and laid its cornerstone (Job 38: 4-11). During God's creation enterprise, he said, "Let the waters teem with swarms of living creatures, and let birds fly above the earth in the open expanse of the heavens"¹⁴. Plants and animals all owe their origin to God. God created the great sea monsters and every living creature that moves, with which the waters swarmed after their kind and every winged bird after its kind; and God saw that it was good. God blessed them, saying, "Be fruitful and multiply, and fill the waters in the seas, and let birds multiply on the earth". God's commitment to sustainability and the sustainable management and existence of the species He created are rooted in His desire to see His creations multiply and fill the sea and the earth. By implication, successive human generations have the moral and existentialist responsibility to preserve and ensure the continued existence of plants, animals and birds on which human subsistence depends.

3. Man's Environmental Stewardship

The Biblical foundations of man's environmental stewardship after his creation, and humanity's moral obligation to protect the natural environment and to preserve it for his subsistence and welfare, and that of future generations (man's spiritual offspring's) are all scripturally well-established, thus, the strong nexus between theology and sustainability.

God has therefore bestowed onto his creation the responsibility to care for and conserve the environment: in Genesis 2:15 it is documented that after creating man, the Lord God took the man and put him into the Garden of Eden to cultivate it and keep it. God in his supremacy created man in His likeness and above the rest of His creation, which creation man lives by and watches over as well. Highlighting the position of man in the realm of God's creation, the Psalmist reminds God that "You made him a little lower than the heavenly beings and crowned him with glory and honor.

¹² God's supremacy over His creation and the establishment of the fact that He is the creator of all things is documented in Acts Chapter 17 verse 24.

¹³ See Acts Chapter 17 verse 24 and Revelations chapter 4 verses 11.

¹⁴ Genesis 1:20-22

You made him to rule over the works of your hands; you put everything under his feet: all the flocks and herds, and the beasts of the field, the birds of the air and the fish of the sea, and all that swim that path of the sea”¹⁵.

Because we all live on the same planet and are ultimately dependent on the natural fruits of the earth for life-support, humanity has a stake in how elements of nature and the environment are used and managed. When a specific natural resource or environmental issue arises, individuals and groups often disagree on the appropriate course of action to resolve the issue or problem. At the core of these disagreements are different values and beliefs related to nature itself, and the use and management of nature by people. It is worth emphasizing that environmental issues and the human management of the environment and its resources are fundamentally interrelated with man’s Biblical mandate as custodian of God’s creation and ethical issues related to the environment and resource management. God instilled in man rationality and morality. Nevertheless, the current challenge for the sustainable management of resources held by the environment lies in the fact that the quest for rapid socio-economic developments leads to rapid resource-use and the erosion of the culture of sustainability. The efficient and sustainable management of the environment and the desire to address current environmental problems entails the development of a moral architecture for addressing current challenges of sustainable development and the environment. This tallies and identifies with a basic tenant of human behavior espoused in the Bible. The philosophy of sustainability hinges on the Biblical principle that true change starts from within a person’s heart and spirit and works outward as reflected by human attitudes and actions. Once humanity is able to uphold its spiritual mandate as custodians of the environment, as an integral part of human survival, the essence of our inner faith will determine our living out of our environmental Biblical stewardship, through sustainable development and sound environmental practices.

4. Theological Sustainability for the Preservation of Species

Corruption is a vibrant ill in every strata of the present society. It is well entrenched in the South as it tends to thrive in a context of weak governance and the absence of good governance. In the North corruption takes a more legalized form known as lobbying. Corruption is equally a major instrument for the destruction of the environment and species. Where Nature is preserved in the South, the rich and well to do from the North tend to bribe their way through to kill game for sport. The former king of Spain Juan Carlos I was able to buy himself the permission to gun down an elephant in a natural reserve in Botswana, although he represented the World Wide Fund for Nature. In like manner Walter Palmer, a Minnesota based U.S dentist recently bought himself the right to kill a protected lion (Cecil) in the Hwange National Park in Zimbabwe¹⁶. On both counts and on both sides, that is indicative of the corrupt nature of contemporary man. In the aforementioned cases corruption becomes perilous to the preservation of endangered and protected animal species.

The foregoing scenario mirrors the Biblical state of human corruption after his creation. Adam and Eve allowed themselves to be corrupted by sin and disobedience, driven by ambition and failed in their God-given mission to watch over and preserve nature; the garden in its purity and sanctity as a milieu where God came to commune with them. Biblical man’s corrupt nature is again highlighted in Genesis Chapter six. God notices “man’s wickedness on earth and finds out that every inclination of the thoughts of his heart was only evil all the time. The Lord was grieved that he had made man on the earth and His heart was filled with pain”¹⁷. Intertwined with Biblical man’s corruption and wickedness is God’s sustainable purpose to preserve His natural species and the Biblical everyman Noah, to ensure their durability and. Although the earth was corrupt, Noah stood out as “blameless and righteous among the people of his time and he walked with God” and “found favour in the eyes of the Lord”¹⁸. The fact that Noah was not corrupt earned him a covenant with God. He was granted the favour of security in the ark with his wife, sons and his daughters’ in-law. Noah received a clear mandate to preserve God’s creation “you are to bring into the ark two of all living creatures, male and female, to keep them alive.

¹⁵ This citation of the Psalmist emanates from the New International version of the Holy Bible, printed by the International Bible society in 1984, Psalm 8:5-8, pp. 378.

¹⁶ The Minnesota Dentist allegedly paid 50 thousand dollars to lure and kill Cecil the lion out of the Hwange National Park.

¹⁷ See Genesis Chapter 6, verses 5-7, in Holy Bible, the New International version, printed by the International Bible Society, 1984, pp.4.

¹⁸ Ibid, Genesis Chapter 6, verse 8 – 9.

Two of every kind of bird, of every kind of animal and of every kind of creature that moves along the ground will come to you to be kept alive. You are to take every kind of food that is to be eaten and store it away as food for you and for them"¹⁹. One can argue that the current wave of sustainable governance owes its roots and inspiration from the Biblical example of Noah. Currently there are numerous environmental movements such as the World Wide Fund for Nature (WWF), Friends of the Earth, departments such as the United Nations Environmental Programme, and numerous pressure Groups such as Greenpeace and Human Rights Watch that are dedicated to the preservation of the environment and its species for posterity and for man's welfare.

5. Theological & the Socio-Economic Component of Sustainability

The economic domain of sustainable development is committed to economic sustainability. A healthy economic situation guarantees human welfare. A sustainable economic situation aligns with the social component of sustainable development that focuses on human welfare. God created the resources of the planet for the welfare and development of the human race. Nevertheless, greed has imposed unequal access to resources by the populations of the South. The entire human race depends on, and is expected to survive by the resources of the earth; "the earth is one but the world is not. We all depend on one biosphere for sustaining our lives. Yet each community, each country, strives for survival and prosperity with little regard for its impact on others. Some consume the earth's resources at a rate that would leave little for future generations. Others, many more in number, consume far too little and live with the prospect of hunger, squalor, disease and early death" (Brundtland et al, 1987: 27).

Modern man has strayed away from the God given responsibility to watch over and ensure the sustainable management of the earth's resources for his welfare. The economics of greed, as practiced by some powerful multinationals and emerging economies is undercutting God's vision of managing the earth and its resources. Modern-day Man is thus failing in his Divine mandate. This trend needs to be reversed to ensure the sustainable management of the planet and its resources as premeditated by God from inception. The failure of humanity to meet his needs and to durably uphold the sustainable management of the earth's resources "arises both from poverty and from the short-sighted way in which we have often pursued prosperity. Consequently, many parts of the world are caught up in a vicious downwards spiral: Poor people are forced to overuse environmental resources to survive from day to day"²⁰. Proverbs 22:2 highlights the fact that the rich and the poor have a common bond because; the Lord is the maker of them all. Psalms 115 verse 16 points out that the heavens are of the Lord, but the earth He has given to the sons of men. Theologically, one could argue that God decreed that man should freely develop, while managing the earth's resources sustainably. Genesis records that "God created man in His own image. In the image of God He created him; male and female He created them. God blessed them; and God said to them, "Be fruitful and multiply, and fill the earth, and subdue it; and rule over the fish of the sea and over the birds of the sky and over every living thing that moves on the earth"²¹.

6. The Delicate Balance between Preserving & Subsisting on the Environment

There is a delicate balance between preserving plants and animals and depending on them as a source of subsistence (food and protein). Numerous primitive tribes live on wide vegetables and plants and animals for food and medication. Although there are efforts underway to domesticate some wild species, in order to ensure that they are preserved, the fauna and flora are largely threatened around the world due to unsustainable human practices. Animals such as cane rates and porcupines are increasingly being domesticated to ensure their sustainability and to prevent those from being extinct, in the similitude of God's instructions to Noah. Juxtaposed with such efforts, is the mass slaughter of endangered species such as elephants and rhinos in African countries such as Cameroon, the Democratic Republic of Congo and South Africa for their tusks.

The Biblical foundation for man to get his food from the animal species created by God is echoes and reechoed through Peter's vision in Acts of the Apostles chapter 10. Peter fell in a trance and saw heaven open and saw something like a large sheet being let down to earth by its four corners "it contained all kinds of four-footed animals, as well as reptiles of the earth and birds of the air, then a voice told Peter Kill and eat"²².

¹⁹ See Genesis Chapter 6, verses 19-21.

²⁰ Brundtland et al, 1987: Our Common Future: The World Commission on Environment and Development, Oxford, Oxford University Press, pp, 27.

²¹ Genesis 1:26-30

²² Acts chapter 10, verses 9-13.

The environmental dimension of sustainable development highlights the preservation of the human and natural environment. Healthy living entails a healthy natural human environment with vegetation and the domestication and preservation of various species that are relevant for human subsistence. Nature is vital for human subsistence. In fact man owes his origin to nature. Therefore nature and man are of equal significance. In Ecuador nature has been granted constitutional rights like humans to protect it. This mirrors the Biblical garden planted by God himself for His creation. Several Botanical Gardens are currently being created around the world for the same purpose. Such efforts are similarly to the garden God planted for men: "now the Lord God had planted a garden in the east, in Eden; and there he put the man he had formed. And the Lord made all kinds of trees grow out of the ground – trees that were pleasing to the eye and good for food ... you are free to eat from any tree in the garden"²³ Adam and Eve, the first Biblical couple received the divine mandate from God to obtain their food from God's natural creation.

The degradation of animal, plant and forest resources in Sub-Saharan Africa and most of the third world has been accelerated by capitalist actors that are driven by the profit motive. This category of actors, in complicity with corrupt political leadership, has no regard for sustainability and/or the theological mandate of conserving nature. Consequently, powerful timber, oil and rich multinational companies, as well as capital-rich Gulf and emerging states such as China, are accelerating deforestation around the world through logging, mining, the exploitation of various natural resources and land grabs, to cultivate grain for their populations, for food security. This is undercutting the philosophy of sustainable development and the conservation of nature as Biblically established. Unsustainable forest, land and resource-use practices will accelerate the adverse effects of climate change. Thus, there is urgent need to curb this trend and enforce sustainable environmental and resource-use practices. It is in this context that the state of Ecuador has granted constitutional rights to nature. The constitution underscores that "Persons and people have the fundamental rights guaranteed" in the Constitution and in the international human rights instruments. "Nature is subject to those rights given by this Constitution and Law"²⁴.

Article 71 of the Constitution of Ecuador further underlines that "Nature or Pachamama, where life is reproduced and exists, has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution. Every person, people, community or nationality, will be able to demand the recognitions of rights for nature before the public organisms. The application and interpretation of these rights will follow the related principles established in the Constitution. The State will motivate natural and juridical persons as well as collectives to protect nature; it will promote respect towards all the elements that form an ecosystem". Development and human subsistence depends in part on nature and a healthy environment, in the similitude of the Biblical gardens. Thus, the constitution of Ecuador acknowledges that "Nature has the right to restoration. This integral restoration is independent of the obligation on natural and juridical persons or the State to indemnify the people and the collectives that depend on the natural systems. In the cases of severe or permanent environmental impact, including the ones caused by the exploitation on non renewable natural resources, the State will establish the most efficient mechanisms for the restoration, and will adopt the adequate measures to eliminate or mitigate the harmful environmental consequences"²⁵.

Biblical accounts have it that after creating man in his likeness, God asked them to "rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground"²⁶. God confirms His authorization for man to obtain his food from fauna and flora by asserting and assuring his human creation that "I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be your food. And to all the beasts of the earth and all the birds of the air and all the creatures that move on the ground-everything that has the breath of life in it, I give every green plant for food"²⁷. Human subsistence Biblically depends on nature. By implication, nature has to be preserved for human security.

²³ See Genesis chapter two, verses 8, 9, 16.

²⁴ See the Rights of Nature Article in Ecuador's Constitution, Art 10.

²⁵ Constitution of Ecuador: Rights of Nature Article, Article 72.

²⁶ Genesis Chapter 1, verse 28.

²⁷ Ibid, Genesis Chapter one, verses 28-30.

Therefore, the Constitution of Ecuador equally obliges the state as custodian and steward of the environment to preserve it: "The State will apply precaution and restriction measures in all the activities that can lead to the extinction of species, the destruction of the ecosystems or the permanent alteration of the natural cycles"²⁸.

7. Humanities Environmental Stewardship Deficit

The human deficit for environmental stewardship is occasioned by the fact that humanity is supposed to survive on nature, its resources, while at the same time preserving his environment. The human quest for survival and subsistence, sometimes superseded by greed, and the quest for prosperity are pursued at the peril of nature and the environment.

As briefly hinted on earlier, there is a sound theological basis for man's survival on the environment and its resources. The subsistence of Early Man, created in God's image depended entirely on hunting game for protein and gathering wild fruits, food and vegetables. In this day and age, there are indigenous tribes in the Amazon and Pygmy populations in Africa that live and survive solely on fauna and flora. It is Biblically documented that "Abel kept flock and Cain worked the soil"²⁹. Similarly, the central Biblical character Abram lived on nature. Abram and his relation Lot had numerous herdsman³⁰. This holds true with Joseph's family (Genesis 37).

Various assessment reports released by the Intergovernmental Panel on Climate Change (IGPCC) on the state of the planet concur that human activity is responsible for the degradation of our planet. The emission of Carbon dioxide, deforestation and related human activities are responsible for the adverse effects of climate change on the planet. The inability of the global community of nations to make decisive commitments to curb the emission of greenhouse gases is indicative of climate diplomacy and a deficit in environmental stewardship.

8. The Darwinian Tussle between Capitalism & Sustainability

Resource grabbing is rampant and growing in scale across SSA. Resource grabbing as it is currently playing out, in Africa and elsewhere is symbolized by various land deals between various capital-rich states, powerful transnational companies and corrupt politicians. Land leasing, paves the way for the illegal and unsustainable exploitation of natural and other resources embedded on the leased land. Such land deals that span from thirty to a hundred years are concluded at the detriment of current and future generations³¹. These land deals are unfair in that they rollback efforts at sustainable development, sustainable resource-management, and represent a setback to intergenerational justice.

A close scrutiny of large-scale land deals in Sub-Saharan Africa (SSA) in particular, reveals significant levels of land leasing activities. Quantitative inventories have documented a total of more than 2,492,684 hectares of land leased since 2004, in Ghana, Ethiopia, Madagascar, Sudan and Mali. In a sense, there is a rising level of land-based investments in various SSA states. This deals and other resource-for-infrastructure contracts between China and various African states is detrimental to development and sustainable development. Land deals are largely dominated by foreign investors, although a measured number of domestic investors are equally involved in land deals across SSA. Such an upward trend in allocated land areas and anticipated growth in land-investment levels in future, sustainable land and natural resource-management cannot be guaranteed. Most of the remaining land that is suitable for agriculture is already under use by foreign investors. Pressure is growing on 'higher value land' with irrigation potential, and/or land that is close to the market (FAO, 2009:4).

Large-scale land deals are driven by a number of factors. Land grabbing is triggered by the quest for natural resources that are found on leased land and often exploited illegally. Food security concerns in investor countries, triggered by food supply problems and uncertainties created by geographical constraints in agricultural production are other drivers. Equally, the limited availability of water and arable land in most Golf states, parts of China and India are valid factors.

²⁸ See Constitution of Ecuador: Rights of Nature Article, Article 73.

²⁹ Cain and Abel were the off springs of Adam and Eve. Cain was a farmer who made unworthy offerings to God. Abel offered appreciably to God. That earned him God's favour. Overwhelmed with envy Cain took his brother's life. See Genesis 4.

³⁰ Ibid Genesis Chapter 13

³¹ Large-scale land deals in Africa and other parts of the developing world, lead to expropriations without adequate compensation. The expropriation of famers intensifies food crisis and deprives women and future generations of their land rights.

Thus, food security concerns and bottlenecks in food storage and distribution are key drivers of government-backed land deals that are perilous to sustainable development and the durable management of natural and environmental resources.

The global food crisis of 2007 and 2008 and the associated hikes in food price, created the impression across the world that, the planet will continue to experience high grain and other food prices. Equally, the expansion of commercial biofuel production, driven by the global demand for clean fuels and non-food agricultural commodities, as well as expectations for rising rates of return in agricultural and land values, and policy measures in host and home countries, constitute the drivers of new patterns of investments on land property (FAO, 2011: 4 - 5). The development of huge plantations for commercial crop production under cuts sustainable land and resource-management, as well as the sustainable management of the environment and natural resources.

Various land deals that are perilous to the sustainable management of the environment and various finite and nonfinite resources are often 'packaged' to include 'commitments' on investment, infrastructure development and employment. Rather than being purchased or sold, vast chunks of land are leased to second country investors. Host governments, especially in SSA play an active role in allocating land to investors, with promises by investors for investments, the creation of employment creation and infrastructure development. Claims for 'commitment' to the aforementioned by investors and corrupt government officials alike are never fully kept because such commitments often 'lack teeth' in the overall structure of documented land deals (FAO, 2011: 5 - 6).

9. Biblical Underpinning of the Right to a Green Future

A green future is essential for human and food security. Little wonder that after creating man, God "planted a garden" to ensure a green future for man and his off springs. God ensured humanity's right to a green future by creating plants and animals for his subsistence and planting a garden that man was assigned to preserve for himself and posterity. The garden and natural environment depicted in the Biblical story of creation, is indicative of a human and natural environment that is durably equipped for human subsistence, lush with vegetation, free of pollution and deforestation. It is a context of an organic food security system, where nature (plants and animals) is in harmony, with a sustainably managed setting that is free of environmental degradation and/or the human greed for natural resources, characterized by present-day deforestation and various unsustainable activities of multinationals. Powerful multinationals tend to pillage the environment and its resources, at the detriment of a green future.

The present-day vision for a green future and a green economy hinges on the argument that in its simple expression, "a green economy is low carbon, resource efficient and socially inclusive". In a green economy "growth in income and employment should be driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystems" (UNEP, 2011). This reflects the harmonious Biblical cosmos.

Unfortunately, most economic development and growth strategies that currently characterized global development tend to encourage the rapid accumulation of physical, financial and human capital at the expense of the excessive depletion and degradation of natural capital. This includes the "endowment of natural resources and ecosystems". Economic development is accelerating the depletion of "the world's stock of natural wealth irreversibly". The current patterns of sustainable resource-grabbing and environmental degradation around the world, to power development and growth impacts the wellbeing of current generations negatively and presents tremendous risks and challenges for the future (UNEP, 2011). The global process of development as characterized by land deals and resource-greed is falling short of improving the socio-economic conditions of humanity. Global development as characterized by development patterns in the North, and associated life styles is powered by resources, in some cases finite resources. To achieve a green future and "sustainable development and a higher quality of life for all people, states should reduce and eliminate unsustainable patterns of production and consumption" (Rio Declaration: Principle 8; United Nations, 1992).

The quest for a green future is triggered and enforced by perceptions that development has been achieved over the years at the peril of natural resources and the environment, with little regard for sustainability.

The United Nations Environment Programme's (UNEP) vision of a green economy is enshrined in its contribution and commitment to the overall goal of "addressing poverty and delivering a sustainable" 21st century, by pushing for the greening of the global economy, in an effort to "shift development and unleash public and private capital flow onto a low-carbon and resource-efficient path" (UNEP, 2011).

The adverse effects of climate change are becoming only too visible across the world. Floods, drought, prolonged and extreme dry seasons, desertification, the degradation of the environment and the loss of biodiversity are being accelerated by the negative fallout of climate change. This is further aggravated by the creation on numerous plantations across the world, mining activities and the extraction of hydrocarbons. Thus, the relevance of a green economy cannot be over emphasized, as it is worth fighting for in its own right. A green economy is one that will result in "improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcity". A green economy is "low-carbon, resource efficient and socially inclusive". In a green economy, growth in income and employment are driven by public and private investments that reduce carbon emissions and pollution, enhances energy and resource efficiency and prevents the loss of biodiversity and ecosystem services (UNEP, 2010; UNEP, 2011).

Investment in the development of a green economy has to be "catalyzed and supported by targeted public expenditure, policy reforms and regulation changes" in land use and resource management. The development path for a green economy should "maintain, enhance and, where necessary rebuild natural capital as a critical economic asset and a source of public benefits" (UNEP, 2011). This is especially vital for those populations whose livelihoods and security depends on nature. The growing trend of environmental degradation driven by the establishment of mammoth plantations and the quest for raw materials is destructive to the livelihoods of local populations in Africans and other third world countries. As was the case in Biblical times, local populations often depend on the forest for building materials, traditional medication, insect and animal proteins, wild vegetables, as well as for cultural practices. The trend could be encouraged by enforcing the vision of a green economy, especially in the third world.

Commercial agriculture as practiced by some multinationals and rich individuals in the South is land and water intensive. These projects therefore undercuts the sustainable management of land, water and other natural resources and it is disruptive to socio-economic development especially in Africa. A world running low on drinking water and productive land, set against the backdrop of climate change, extreme weather events and rising natural resource scarcities could be very disruptive and perilous for human survival. A green economy is thus relevant for the economies of the South, as it is to the economies that are state and market-led. The vision of a green economy thus harmonizes with the cosmic order that God created, as well as with the politics of sustainable development. If implemented on a global scale, the philosophy of the green economy will in the long-run ensure that "development at the national, regional and global levels" is done in a way that resonates with the amplification and implementation of Agenda 21. Agenda 21 sets the tone for sustainable development (UNEP, 2011).

The key objective for states to aspire towards the transition to a green economy should be driven by the determination "to enable economic growth and investment while increasing environmental quality and social inclusiveness". The objectives of a green economy entail creating conditions for public and private investments to "incorporate broader environmental and social criteria" (UNEP, 2011). As various land deals and current development is playing out, it has become obvious that a major challenge facing the vision for a green economy lies in reconciling the competing economic development aspiration of rich and poor countries in a world economy that is facing increasing climate change, energy insecurity and ecological scarcity. The concept of a green economy can face up to the foregoing challenges, by mapping out a development vision that reduces carbon dependency, promotes energy efficiency and diminishes environmental dilapidation. As economic growth and investment become less dependent on liquidating environmental assets and sacrificing environmental quality, both rich and poor countries can attain more sustainable economic development (UNEP, 2011).

The notion of a green economy has to be made central in policy discourse both in the South and at the global level, given the obvious limits and justified disillusionment with the prevailing economic paradigm and the enduring sense of fatigue emanating from numerous current crises and market failures. Unlike what various land deals are unleashing, a green economy denotes "a new economic paradigm in which material wealth is not delivered perforce at the expense of growing environmental risks, ecological scarcities and social disparities" (UNEP, 2011).

For countries in the South and those of the North alike, the establishment of a green economy entails “leveling the playing field for greener products (in the likeness of the Garden of Eden) by phasing out antiquated subsidies, reforming policies and providing new incentives, strengthening market infrastructure and market-based mechanisms, redirecting public investments and greening public investment” (UNEP, 2011). For the private sector across Africa and the entire developing world, a green economy demands “understanding and sizing the true opportunity represented by green economy transitions across a number of key sectors and responding to policy reforms and price signals through higher levels of financing and investments” by the private sector in Africa and the global community (UNEP, 2011).

There is growing consensus and recognition that achieving sustainability within and without Africa rests largely on “getting the economy right”. This school is enforced by the perception that decades of creating new wealth through “a brown economy model based on fossil fuels”, have failed to sustainably address resource depletion, environmental degradation and social marginalization. The notions of sustainable development and the green economy are inextricably interwoven. This explains why in 2009, the UN General Assembly decided to hold a summit in Rio de Janeiro in 2012 (Rio +20), to commemorate the 20th anniversary of the First Earth Summit in 1992. It adopted a two-item agenda for the Rio + 20 Conference: “Green Economy in the context of sustainable development and poverty eradication”. However, the crucial question in the current capitalist and capital approach to sustainable development is “whether substitution among different forms of capital – human capital, physical capital and natural capital is possible”. Various forms of natural capital are indispensable for the welfare of disadvantaged populations in the South and their welfare. Particularly indispensable are key ecological goods and services, natural habitats, unique environments and ecosystem attributes. Resource grabbing and the resultant deforestation raises legitimate concerns that tropical forests, natural resources and other important environmental assets will “become increasingly scarce” and “limits our ability to determine whether we can adequately compensate future generations for today’s irreversible losses in such essential natural capital” (UNEP, 2011).

The agricultural sector is the backbone of the economies of the developing world. It is vital for food security to reverse food-poverty. It is essential for a healthy work force and the emergence of disadvantaged economies of the South. Agriculture is “a major occupational sector” in numerous developing countries, and an important source of income for the poor (UNEP, 2011). Land, water and other forms of resource grabbing represents a major obstacle to the development of a vibrant agricultural industry in Africa and the global South, and impedes efforts at greening agriculture across the continent. The greening of agriculture in Africa as a case in point, to address hunger and current ecological challenges, entails increasing the use of farming practices and technologies that concurrently “maintain and increase farm productivity and profitability”, while ensuring the provision of food and ecosystems services on a sustainable basis. Green agriculture practices should gradually aim at positive externalities, while reducing negative externalities. Greening agriculture entails rebuilding ecological resources such as water, soil, air and biodiversity, and natural capital assets through efficient resource use and reduced pollution. Various form of resource exploitation, especially land grabbing and the resultant humongous plantations and peri-urban areas generate negative externalities; pollute water sources, given that plantation agriculture is chemical intensive. Farming practices and technologies are instrumental in greening agriculture should be encouraged to restore and improve soil fertility by using “naturally and sustainably produced nutrients inputs, to the diversification of crop rotation, as well as crop integration and livestock”. This involves putting in place measures to reduce soil erosion and improve efficient water use, through tillage and cover crop cultivation techniques. The reduction of herbicide and chemical pesticide use in favour of environmentally friendly weed and pest management practices has to be part of the policy strategy to green agriculture.

Chronic food crisis in African states have persisted because of inadequate food storage techniques and facilities. Most African states witness abundant grain harvest in a given year and excess yields are wasted for want of storage, only to endure a famine in the ensuing year. Thus, a green agriculture strategy for the South must integrate measures to reduce food spoilage and loss by “expanding the use of post-harvest storage and processing facilities” (UNEP, 2011).

Unsustainable resources-use practices in the South are having a negative domino effect that is translating into the development of peri-urban settings due to rural-urban migration. The “accelerated migration” of rural populations to peri-urban neighborhoods in Africa in particular is driving a demographic change within rural populations. In practice, working-age males tend to move to peri-urban areas to seek employment. These populations are forced to move in part because of environmental degradation and expropriation. This diminishes “the pool of men available for agricultural work”. The rural out migration of African men for example is resulting in a dominant role for women as smallholders. Consequently, 70 percent of small holders in SSA are women (IFAD, World Bank, FAO, 2009, UNEP, 2011). Unfortunately, the growing trend of expropriations as a result of resource-exploitation, especially land grabbing is increasingly dispossessing women of small farm holdings. The growing trend of resource-driven expropriations increases the vulnerability of African populations to hunger, conflict over land and chauvinistic land management that destabilizes many family units, with far-reaching social consequences.

Conclusion

There is a strong liaison between theology and sustainable development. God created man from nature (dust) and placed him in a natural context (the Garden) in which he had to dwell and survive. Man’s natural setting after creation was equipped to meet his food needs and ensure his subsistence. The natural context epitomizes a milieu in which God created to commune with man. By placing man in “the Garden”, God bestowed on humanity the responsibility of environmental stewardship. Man had the implied responsibility to look after the Garden and all of God’s creation, to survive by it and to preserve it, thus the notion of sustainability.

Some indigenous tribes in Africa and the Amazon still depend entirely on nature (the forest) and the environment for their subsistence. These tribes live on wild vegetables, plant and animal protein, traditional medication and biomass obtained from the natural context in which they dwell. Their reliance and ability to subsist on nature in line with man’s Biblical origins, is threatened by deforestation, land grabbing, the quest for natural resources and the exploitation of hydrocarbons around the world. This highlights the urgent necessity to enforce sustainable development practices, especially the sustainable management of forest and natural resources through sound environmental governance.

In exploring the nexus between theology and sustainable development, this paper has elucidated the notions of theology and sustainable development respectively. Highlighting the nexus between the aforementioned concepts, this research has analyzed man’s spiritual-natural origins and environmental sustainability, man’s environmental stewardship, as well as the notion of theological sustainability for preservation of species.

The corpus of this paper has equally analyzed the link between theology and the socio-economic component of sustainable development, underscoring the delicate balance between preserving and subsisting on the environment, and highlighting humanities’ current environmental stewardship deficit in a context of resource-greed. The paper has also accentuated the current Darwinian tussle between capitalism and sustainability, as well as the Biblical underpinnings of the right to a green future. This paper has made a number of significant findings. Firstly, resource-greed and the tendency of rich and powerful multinationals and emerging states such as China, to acquire resources in the South is defying the sustainable management of the natural environment and natural resource. Secondly, the current climate of natural resource grabbing is undercutting various efforts at sustainable development and sustainable resource management and thus a deficit in man’s environmental stewardship.

Thirdly, intergenerational justice in environmental protection and natural resource management can only be guaranteed in natural resource politics, by ensuring the sustainable management of these resources to benefit the subsistence and development of current and future generations. Thus, the politics of intergenerational justice is intertwined with the policies of sustainability and man’s Biblical mandate to look after, preserve and to survive on his environment.

Fourthly, the sustainable management of the natural and human environment as well as natural resources, entail a revisit of humanity’s Biblical mandate for environmental stewardship in combination with the moral commitment to sustainable development and the sustainable management of natural resources and the natural environment, that holds such resources. Janna (2010), points out that ‘we have duties to people outside our borders and that includes future members of other societies. Citizens of other societies also believe that they have obligations to their successor; to provide them with an inheritance, or make it possible for them to live good lives’ (Janna 2010: 7).

It is worth emphasizing that justice in the management of the environment, natural resource and the enforcement of sustainable development must be advocated for at the global level, national and local levels, as well as between generations. As the international community and various actors become convinced to promote responsible, just and economically productive resource-management patterns, especially in post-conflict countries, the sustainable management of the environment and natural resources will be enhanced. This will in the long-run also ensure a just and equitable distribution of natural resource wealth to all stake holders, especially local communities that are currently heavily disadvantaged.

The preservation of the environment, forest, land resources and the durable management of finite resources in Sub-Saharan Africa and the global South, demands that resource-rich states speak with a single voice. A common vision and strategy for the exploitation and management of resources in an environmentally friendly fashion will ensure the sustainable and transparent management of the environment and its resources. This will check the excessive power of multinationals and capital-rich governments that tend to disregard the culture of sustainability and defy humanity's God-given made of environmental steward. Therefore, the necessity for various states, multinationals and local authorities to enforce the culture of sustainable resource management cannot be over emphasized.

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