www.missionalia.journals.ac.za | https://doi.org/10.7832/53-0-524

Ecological crisis and the Church

A proposal for biblical stewardship as a nexus for environmental protection

Christopher Magezi
Post-doctoral Fellow, Missiology, North-West University
Potchefstroom, South Africa

Abstract

There is a growing global concern for environmental issues, and stakeholders, including governments, are trying to address the situation in various ways. Unfortunately, the Church, as an ordained community of God, seems to be refraining from engaging in such matters; thus, it remains on the periphery of related public discussions and debates, yet it has the potential to offer significant contributions. There is a dearth of theological research in this proposed area, and none of the few available studies has successfully developed theologies of mission to challenge the Church and, consequently, Christians to protect the environment, so as to mitigate climate change and environmental degradation. As a result, theology has little influence on public discourse pertaining to the prevailing environmental challenges. Given this, the aim of this paper is to propose biblical stewardship as a nexus for environmental protection. That is, the concept of stewardship can persuade the Church to be a significant stakeholder in the global efforts to protect the environment.

Keywords: Ecological crisis, Church, Biblical, Stewardship, environmental protection

1. Introduction

Without doubt, there is a growing global concern for environmental issues and different stakeholders are trying to address or change this situation in many ways. Unfortunately, the Church, as an ordained community of God, seems to have refrained from engaging in a holistic mission that includes looking after the environment; thus, it remains at the periphery of the public discussions and debates that shape positive attitudes towards environmental issues. Mcknight's (2020:n.p) observes that the Church shows very little concern for environmental issues because of lack proper theology to stimulate participation in that endeavour. Zaleha and Szasz (2015:19) expose the split among American Christians on climate change-related issues, as they do not speak with a single voice. Mainline protestants and Roman Catholics clearly support efforts to curb climate change

and global warming, whilst some Prominent Southern Baptist and Evangelical Protestants harbour some anti-environmental sentiments (Zaleha & Szasz, 2015).

Regardless of this status quo, I believe that the Church has the potential to offer significant contributions to the environmental discourse. It is important to note that there is a dearth of theological research in this proposed area, and it is apparent that none of these few studies has successfully developed theologies of mission to challenge Christians to join the efforts to mitigate climate change, global warming and related environmental degradation. As indicated above, theology has little influence on the public discourse on alleviating the prevailing environmental challenges. Thus, the aim of this paper is to propose biblical stewardship as a nexus for global environmental protection, so the aforesaid biblical concept of stewardship should persuade the Church to play a significant role on this issue.

To accomplish the objective of this paper, the first section dialogues with existing literature on the underlying issues and causes of climate related disasters and their far-reaching consequences to humanity and the ecosystem. The second section highlights the efforts that various international, national (government) and inter-governmental organisations are making to strengthen the earth's resilience to climate change and global warming. The section also poses an underlying question about Christians' involvement in addressing the ecological crisis. The third section of the paper proposes biblical stewardship as a nexus for encouraging the Church's involvement in environmental protection. At this juncture, the challenges that hinder theology from contributing to environmental issues is juxtaposed to the aforesaid concept, which is extensively used to stimulate the Church to play a pivotal role in public discourse by joining other stakeholders in seeking ways to address the pervasive environmental concerns. That is, among many other things, biblical stewardship is discussed with a view to draw some missional implications that can challenge the Church to participate in community environmental awareness programmes. Once the aforementioned is accomplished, the paper concludes by advancing that when the Church adheres to its holistic mission, instead of solely focusing on evangelism, it is possible for society to realise sustainable environments.

2. An overview description of the current environmental crisis and challenges

2.1 Defining ecosystem

When defining ecosystem, one has to understand that the prefix *eco* refers to the part of the world and *system* refers to the coordinating units (Balasubramanian, 2008:1). With this in mind, an ecosystem can simply be defined as an operational unit of environment that comprises all living organisms and their products that interact among themselves, as well as with their surrounding physical environment (Balasubramanian, 2008:1). The aforesaid explanation denotes that an ecosystem

consists of living and non-living things. The ecosystem of living things includes animals, microorganisms, plants, bacteria, fungi and their waste products like fallen leaves or branches or excreta, whilst non-living things include ponds, dams, rivers, seas, forests and grasslands (Balasubramanian, 2008:2).

Many environmentalists regard the whole biosphere as a global ecosystem that consists of all local ecological units on earth, so it is too diverse and complex to understand. Because of this, some scholars find it convenient to divide the biosphere into two basic categories namely: the *terrestrial* and the *aquatic* (Brutas, n.d:n.p; Samadhiya, n.d:n.p, cf. Balasubramanian, 2008:2). Grasslands, deserts and forests are considered as good examples of terrestrial ecosystems, whilst ponds, lakes, wetlands and estuaries are examples of aquatic ecosystems (cf. Samadhiya, n.d:n.p). According to Samadhiya (n.d:n.p), an aquatic ecosystem exists in water, whilst a terrestrial one exists on land. Dams, croplands, gardens, parks or aquariums are considered as man-made ecosystems (Balasubramanian, 2008:1). Given this, I concur with Balasubramanian (2008:1) and Samadhiya's (n.d:n.p) affirmations that ecosystems can be broadly categorised as natural or artificial, which can be either land or water-based.

The Notting Hill consultation led to the formation of a plan of action which included the following points:

2.1.1 A global overview of the causes and consequences of climate change with particular focus in Africa

Having defined an ecosystem as a functional unit of organisms and their physical environment that are mutually interactive and dependent on each other, it follows that the term refers to 'the environment of life that is self-sustaining, structural and functional unit of biosphere' (Balasubramanian, 2008:1; Green Infrastructure-Austin, n.d:n.p). However, although an ecosystem can be self-existent, it is important to acknowledge that it has potential benefits for mankind (Green Infrastructure-Austin, n.d:1). Thus, when people 'directly or indirectly use the environment and products from it', it is clear that they are receiving essential services from the ecosystem (ibid). Some examples of the products of the ecosystem include: food, lumber, minerals, clean water and fibre (ibid). On the other hand, non-product services include: 'water purification, waste treatment and intangible elements, such as oxygen from the trees, recreation and beauty, thus, an ecosystem benefit is the human valuation of its service' (ibid). The fact that humankind benefits from the ecosystem in the various ways indicated above is a clear indication that humans have the responsibility to care for the ecosystem so that they can realise the full potential of the benefits and services from the environment.

Nonetheless, whilst human beings derive product and non-product benefits from the ecosystem services, they evidently pose serious threats to the ecosystem itself (Green Infrastructure-Austin n.d:1-25). This paradox is amplified by the United Nations Environmental Programme (UNEP) (2024:n.p), which notes

that human actions trigger environmental degradation, as highlighted by the following examples:

- We are using the equivalent of 1.6 Earths to maintain our current way of life and ecosystems cannot keep up with our demands.
- 1 million of the world's estimated 8 million species of plants and animals are threatened with extinction.
- 75 percent of the earth's land surface has been significantly altered by human actions, including 85 percent of wetland areas.
- 66 percent of ocean area is impacted by human activities, including from fisheries and pollution.
- Close to 90% of the world's marine fish sticks are fully exploited, over-exploited or depleted.
- Our global food system is the primary driver of biodiversity loss with agriculture alone being the identified 24, 000 of the 28, 000 species at risk of extinction.
- Agriculture expansion is said to account for 70% of the projected loss of terrestrial biodiversity.

UNEP (2024:n.p.) further indicates the impact of environmental degradation due to the abovementioned human activities, which worsen climate change and consequently undermine food security, thereby subjecting many people and communities to immense danger. UNEP (2024:n.p.) observes that the below-mentioned aspects demonstrate the far-reaching negative consequences of poor environmental management:

- Around 3.2 billion people, or 40 percent of the global population, are adversely affected by land degradation.
- Up to $577 billion in annual global crop production is at risk from pollinator loss.
- 25 percent of global greenhouse gas emissions are generated by land clearing, crop production and fertilization.
- Development is putting animals and humans in closer contact increasing the risk of diseases like COVID-19 to spread. About 60 percent of human infections are estimated to have an animal origin.
- 100-300 million people are at increased risk of floods and hurricanes because of coastal habitat loss.
- Declines in nature and biodiversity at current trajectories will undermine progress toward 35 out of 44 of the targets of SDGs related to poverty, hunger, health, water cities, climate, oceans and land.

Having established the above-mentioned, it is necessary to highlight that each country and local community should look after small and large functional ecosystem units in order to receive full services and benefits from the ecosystem. Nonetheless, as noted above, instead of looking after these various parts of the

ecosystems, human beings are involved in activities that damage the environment and cause climate change and culminate in disasters or events that are catastrophic to both humanity and the ecosystem itself (cf. Robinson, 2024:n.p.; Earthjustice, 2022:n.p.; The Millennium Project Team, 2017:n.p.). At this juncture, I concur with Robinson (2024), who contends that, although the United Nations Environmental Programme (2024:n.p.) identified many causes and consequences of nature loss, it is ostensible that the burning of fossil fuels is the leading cause of climate change and global warming across the globe (Robinson, 2024:n.p.) and, in turn, these two phenomena result in extremely high temperatures and rainfall on regular bases. High rainfall causes floods, which wipe away the crops and also creates land degradation. Climate change is also characterised by tropical storms and hurricanes, which also pose threats to food security. On the other hand, high temperatures bring extreme heat waves and wildfires, as was the case in some European countries[1] and parts of USA[2] in 2023, which was reported as the hottest year on record (Robinson, 2024:n.p.). In 2023, global average temperatures were at 1.46C, which is:

> …above pre-industrial levels and 0.13C higher than the eleven-month average for 2016, currently the warmest calendar year on record. The year was marked by six record-breaking months and two record-breaking seasons. This steady annual increase is a "direct result of human activity," mainly from the burning of fossil fuels for transportation and electricity generation but also from cement manufacturing, deforestation, and agriculture (Robinson, 2024:n.p.).

It is important to note that Africa, particularly Southern Africa, is not immune to the consequences of climate change and global warming, such as increased poverty, food insecurity and famine, which many African countries are already experiencing (Feedback Madagascar, n.d.:n.p.). For instance, Madagascar is considered as the third most vulnerable nation, given that a large portion of its population lives on subsistence farming, so they face the devastating realities of climate change daily (ibid). Although the United States of America and many other developed countries are the largest contributors of climate pollution due to transportation and electricity generation (Earthjustice, 2022:n.p, Robinson, 2024:n.p), it is unfortunate that countries such as Madagascar are affected the most by the consequences of climate change, yet they have the 'tiniest of carbon footprints contributing to global warming' (Feedback Madagascar, n.d.:n.p.). Madagascar is currently prone to the following consequences of climate change:

1 Atmosphere monitoring services, 2023, 2023: A year of intense global wildfire activity, viewed 09 January 2024, from https://atmosphere.copernicus.eu/2023-year-intense-global-wildfire-activity

2 For more information about veldfires in USA as a result of global warming and climate change, visit 2023 North American wildfires, 2023, viewed 09 January 2024, from https://disasterphilanthropy.org/disasters/2023-north-american-wildfires/?gclid=CjwKCAiA-vOsBhAAEiwAIWR0TahWuPEny7lOzSmfX2Gee4SUND6sPZ1MV2xc2iIxAbLwPlEF1aPUjBoCZiEQAvD_BwE

> …increased temperatures, droughts, cyclones, landslides, deforestation, flooding, devastation of crops, land and infrastructure, increased pests and crop diseases, e.g. locust plagues, unpredictable and unreliable seasons, leaving farmers unsure when to plant and what to plant, leaving farmers and the people of Madagascar cut off from supplies, markets and communications, resulting in price hikes in basic foodstuffs (Feedback Madagascar, n.d.:n.p.).

In the following citation, Reliefweb (2023a:n.p.) paints a vivid picture of the disasters that Madagascar experienced in 2023 due to climate change:

> Intense rainfall caused by two different tropical weather systems which have impacted Madagascar over the last week has driven flooding, landslides, destruction of infrastructure and loss of life, particularly affecting the country's capital Antananarivo, and other areas of Analamanga Region, in the centre of the country. The rains were initially driven by an Intertropical Convergence Zone around 17 January and increased when a Tropical Depression made landfall in the east of the country on 22 January and exited the other side of the island on 23 January.

Malawi also experienced devastating floods in 2023 and even prior to that year (Reliefweb, 2023b:n.p.). For example, in 2019 the country was ravaged by Tropical Cyclone Idai and the Global Climate Risk Index slotted it in the top five category of nations in the world that were most affected by life-threatening weather events (ibid). In the year 2022, Malawi experienced Tropical Storm Ana and Tropical Cyclone Gombe, which killed 64 people and displaced 945,934 (Reliefweb, 2023b:n.p.). Generally, as indicated above, these climate change induced floods strike poor countries and communities that are already struggling to meet basic needs or build proper infrastructure such as health facilities, roads and bridges (ibid). Reliefweb (2023:n.p.) notes that the disasters that hit Malawi continually compel the poverty-stricken country to spend huge sums of money on repairing and replacing infrastructure, thus, diverting scarce resources from other national development needs. Reliefweb (2023b:n.p.) succinctly sums up the dire climate change induced predicament that Malawi is facing:

> The 2015 floods resulted in 278 deaths, 638,000 people affected, and physical damages and economic losses of $335 million ($422 million when adjusted to 2023 dollars), while the 2019 floods resulted in 60 deaths, 975,000 people affected, and damages and losses of $220 million ($257 million in 2023 dollars). … More recently, Tropical Storm Ana and Tropical Cyclone Gombe (2022) resulted in 64 fatalities and 945,934 people affected.

Further, climate related disasters in Malawi mostly affect rural areas, where the majority of people live (Reliefweb, 2023b:n.p.). In 2021 and 2022, the national poverty rate of Malawi stood at 50.7 percent, with the rural areas being the most poverty stricken (ibid). So, these climate related disasters tend to increase the inequality gap between the poor and the rich (ibid). However, it is unfortunate that the frequency and severity of climate related disasters in Malawi are likely to increase in the foreseeable future, given that the majority of Malawians continuously engage in activities that cause high rates of deforestation, as well as land and water degradation (Reliefweb, 2023b:n.p.).

In my view, the aforesaid climate related disasters in Madagascar and Malawi have far-reaching consequences, which other Southern African countries need to be wary of as well. In the case of South Africa, the country has not yet recovered from the floods that resulted from Subtropical Storm Issa, which ravaged some parts of the KwaZulu-Natal province between 8 and 21 April 2022 (Manyati, 2022:n.p.; JBA Risk Management, 2022:n.p.). Apart from the floods, the storm also caused mudslides that displaced more than 40 000 people and left a trail of severe destruction to homes and infrastructure, thus, prompting President Ramaphosa to declare a state of disaster in the area (ibid). JBA Risk Management (2022:n.p.) notes that more than 440 people died and 63 went missing as a result of the storm. The storm damaged 13 000 homes, disrupted 80% of the water supply and forced 600 schools to close temporarily (ibid). In addition, Subtropical Storm Issa rendered roads impassable and swept away bridges (ibid). Although the storm caused large-scale disruptions, an assessment by JBA Risk Management (2022:n.p.) also indicated that the damages were worsened by poor drainage and building standards in the affected areas.

It is important to note that the South African government allocated 1 billion rand to assist the KwaZulu-Natal province to respond to the destruction and disruptions caused by the floods (JBA Risk Management, 2022:n.p.). Nonetheless, local government officials from the affected areas indicate that the allocation is not enough, so it should be doubled (JBA Risk Management, 2022:n.p.). Given that KwaZulu-Natal was once again hit by severe floods in 2023, there is indeed need to further increase the allocation to the disaster fund. The recent floods, which also ravaged the Western Cape province, caused many fatalities, damaged houses and infrastructure and left many homes and business premises without power (Reliefweb, 2023:n.p.). Manyati (2022:n.p.) underscores that the areas that were most severely affected by the floods in KwaZulu-Natal were inhabited by the poor, which demonstrates that, as witnessed in Madagascar and Malawi, climate-related disasters can worsen the inequality gap, as poor communities may never fully recover from the pain and loss. Manyati (2022:n.p.) encapsulates these sentiments in the following words:

> The impact of the disaster was not equally felt. South Africa is the world's most unequal country, and it was in the poorer regions where the consequences of the extreme weather were most severe. This impact visualises the plea of many African nations: Poor communities contribute the least to global pollution but are suffering the most.

Having discussed the underlying issues and causes of climate related disasters, as well as the far-reaching consequences of the harm that human activities cause to the environment, it is important to acknowledge that many international organisations, governmental and inter-governmental organisations are working tirelessly to strengthen the earth's resilience to climate change. With this in mind, the next section now discusses the solutions that have been put in place to reduce climate change and global warming. The forthcoming section is not exhaustive, as it only highlights few efforts that have been taken to address the

global ecological crisis. Thereafter, the underlying question that will be addressed pertains to the role of the Church and, consequently, Christians in addressing the ecological crisis.

3. Attempted global solutions to curb climate change and Church response to the environmental concerns

3.1 In overview: International response to the environmental concerns

In view of the foregoing discussion, one can argue that the threat that humankind poses to the environment can no longer be ignored and the assessments and conclusions made by the scholars and organisations, that are working tirelessly to strengthen the earth's resilience to climate change, need serious attention. For instance, UNEP (2024:n.p.), Earthjustice (2022:n.p.) and Robinson (2024:n.p) assessed the current climate change and global warming crisis and urged humanity to find solutions to strengthen the earth's resistance to climate change. These sentiments are reflected in the following statements:

> We only have until the end of the decade to bend the curve on nature and biodiversity loss. Transformational change is possible if we start now at every level from local to global (UNEP, 2024:n.p.).

> We have only a decade left to change the way we use energy to avoid the worst impacts of climate change (Earthjustice, 2022:n.p).

> Scientists are constantly warning that the planet has crossed a series of tipping points that could have catastrophic consequences, such as advancing permafrost melt in Arctic regions, the Greenland ice sheet melting at an unprecedented rate, accelerating sixth mass extinction, and increasing deforestation in the Amazon rainforest, just to name a few. … However, even if all greenhouse gas emissions were halted immediately, global temperatures would continue to rise in the coming years. That is why it is absolutely imperative that we start now to drastically reduce greenhouse gas emissions, invest in renewable energy sources, and phase our fossil fuels as fast as possible (Robinson, 2024:n.p).

In light of the sentiments from the aforementioned scholars and organisations, various solutions that curb global warming and consequently climate change have been developed. At international level, these efforts culminated in an agreement that recognises proper environmental management as the only way to mitigate climate change related catastrophes (Fearnhead, 2022:n.p.). The consensus at international, country and local level is that effective solutions to safeguard nature 'need to be more than a pledge or a recommendation; they need to be at the heart of every decision' (ibid).

In December 2023, the United Nations convened an international conference in Dubai, the United Arab Emirates. The conference, which was attended by 200

government and intergovernmental organisations, discussed the development and implementation of National Adaptation Plans (NAPs) that had been agreed thirteen years earlier (Palmer, 2023:n.p). The purpose of National Adaptation Plans is to strengthen climate change resilience at the national level (ibid). The conference established that 52 countries had already formulated and submitted their NAPs (ibid). These countries include just over a third of developing countries, at least half of developed countries, and a third of small island developing states (SIDS) (ibid). However, it was noted that, although some countries had already developed their NAPs, it was apparent that they were struggling to implement them (ibid). This sluggishness in the implementation of NAPs is worrisome, as there is an increase, in speed and scale, in climate related challenges, some of which were indicated in the preceding section. Consequently, governments should work together with intergovernmental and non-governmental organisations in developing and implementing their NAPs.

Nevertheless, it is important to take note of the reasons that hamper the implementation of the NAPs, particularly by developing nations (Palmer, 2023:n.p). Some of the reasons include lack of funding, which is prevalent among developing countries (ibid). Many countries also lack the capacity to implement their NAPs effectively. Thus, emphasis should be given to strengthening capacities at 'national and subnational levels to package adaptation priorities into bankable projects, as well as for policy and project development' (ibid). In light of this, the Dubai conference delegates suggested that the countries that had already formulated their NAPs should have easy access to the Green Climate Fund (GCF), so that they can implement their projects. International partners were also encouraged to provide support in strengthening national capacity in the development and implementation of NAPs. This shows that, in spite of negligible progress, the efforts to curb climate change across the globe are not entirely cheap talk. UNEP (2024:n.p.) further recommends several subsequent actions that should be taken:

- Investments in nature-based solutions will need to at least triple by 2030 if the world is to meet its climate change, biodiversity and land degradation targets.
- Preventing the large-scale collapse of nature will require effective conservation of more of our land, inland waters and oceans, as well as the world delivering on its current commitment to restore at least one billion hectares of degraded land in the next decade.
- Agriculture has altered the face of the planet more than any other human activity. We need to transform our food systems to become more sustainable and resilient in order to reverse environmental degradation, restore ecosystems and ensure food and nutritional security. Read about food system impacts on nature and biodiversity.
- Governments must assign a financial value on the services that nature provides to people so that environmental action can be prioritized in policy and investment decisions. Read the IPBES new report for how assigning values to nature can help address biodiversity loss.

- Tax structures and subsidies should be reformed to incentivize sustainable production and ensure that environmental degradation no longer pays. This joint FAO-UNDP-UNEP report calls for governments to rethink the way agriculture is subsidized and supported.
- Corporations should put sustainability at the heart of decision making and focus on new sustainable business models to meet society's needs in ways less impactful on the environment. UNEP's Global Environment Outlook for Business briefs provide roadmaps that business can follow to address our environmental challenges.
- All financial players should align their business strategies with global and national sustainability goals including the SDGs, the Paris Agreement and the upcoming Biodiversity Framework.

However, this does not mean there are no practical solutions that are being taken to reduce global warming and consequently climate change. For instance, the acknowledgement that emissions from the burning of fossil fuels to generate electricity and power vehicles is bad for both the planet and human health has inspired some companies to manufacture large and small electric vehicles (Earthjustice, 2022:n.p.). In doing this, these companies are aligning their production with some of the abovementioned solutions for reducing global warming and, consequently, climate change (UNEP, 2024:n.p.). These companies now understand that one of the largest source of climate pollution in all countries is transportation, so there is need to make the vehicles on our roads as clean as possible to save ourselves and the climate (Earthjustice, 2022:n.p.). Below, Earthjustice (2022:n.p.) gives a detailed explanation of how this thrust can save both the climate and humankind:

Electric vehicles have a smaller carbon footprint than gasoline-powered cars, no matter where your electricity comes from. However, we are aware that in the manufacturing process, electric vehicles will produce more global warming emissions than the average gasoline vehicle, because electric cars' large lithium-ion batteries require a lot of materials and energy to build. But once the vehicles get on the road, it's a whole different energy story. Electric vehicles make up for their higher manufacturing emissions within, at most, 18 months of driving - and continue to outperform gasoline cars until the end of their lives.

3.2 In overview: Church response to the environmental concerns

Now, whilst the abovementioned effort, amongst many others, is tremendous, the underlying theological question that ought to be asked is: *what is the Church doing to reduce global warming and, consequently, climate change?* This question is of utmost significance, given that the Church, as community of God, has to engage in a holistic mission that includes looking after the environment. It is apparent that most Christians show little concern for the environmental crisis that is described in the previous section (Kiarie, 2020:6-7; Mcknight, 2020:n.p.). This is because the subject is not as pervasive in the Bible as the fundamental

biblical subjects of evangelism and salvation, Christian life and discipleship, just to mention a few. That is, Christians believe that environmental issues are 'not part of … what [they] believe' (Mcknight, 2020:n.p). In its maiden discussion on environmental issues, the World Council of Churches (WCC) seemed to lean towards Macknight's (2020) affirmation that some Christians have little interest in environmental issues because they are not fundamentally taught in the Bible. For instance, Robinson (2009:2) reports that when the environmental discussions and debates commenced in the 1960s within the WCC, the council expressed the concern that it was 'losing its focus from complicated task[s] like justice to some gullible topic[s] like environmental concerns.' However, the aforementioned WCC position shifted with time because in 1966, its African, Asian and Latin American sub-unit met in Geneva to converse on issues linked to environment issues in emerging countries. Among many other things, this conference declared that, due to their commercial and manufacturing activities, the developed countries were guilty of destroying the global ecosystem (ibid).

Subsequent WCC conferences discussed environmental concerns. For instance, the 1974 conference on science and technology for human development that was held in Bucharest, Romania, conversed about ecological challenges, and the Nairobi conference of 1975 made it clear that the Church was to strive for 'just, participatory and sustainable' (Robinson 2009:2). Further, this conference made it clear that, without a healthy environment, the commitment to justice and peace has no meaning, as the Church has to also commit to the integrity of all creation (ibid). The WCC Vancouver conference of 1983 also showed the same concern towards the environment (ibid). At the WCC conference of 1988, the Church joined with other stakeholders to discuss the greenhouse crisis. At the 1988 conference, scientists, political leaders, environmentalists convened with the Church to discuss global warming, which was an emerging environmental crisis at that time (Robinson, 2009:3). After this conference, the WCC continued to hold more conferences in which environmental concerns were raised and discussed, but very little practical action was taken to curb the far-reaching consequences of the ecological crisis (Robinson, 2009:3).

It is extremely worrisome that the WCC, as the largest international Christian body, has shown much concern, but performed little practical action on environmental issues (Mcknight, 2020:n.p.; Zaleha and Szasz, 2015:19). Zaleha and Szasz (2015:19, cf. Barna Group 2007:n.p) conducted and important study on the different views held by various American Christian denominations with regard to environmental issues. The study revealed that American Christians were not speaking with one voice on environmental concerns, as, for instance, the mainline protestant denominations and the Roman Catholic Church strongly supported efforts to curb global warming and climate change, whilst some Prominent Southern Baptist and some Evangelical Protestants exhibited some anti-environmental sentiments. Zaleha and Szasz (2015:19) describe these divergent views of American Christians on global climate issues in the following captivating manner:

> American Christians have become increasingly polarized on issues of climate change and environmental regulation. In recent years, mainline Protestant denominations and the Roman Catholic Church have made explicit declarations of support for global climate action. Prominent Southern Baptists and other evangelical Protestants, on the other hand, have issued statements that are strikingly similar to the talking points of secular climate skeptics, and have attempted to stamp out "green" efforts within their own ranks. An analysis of resolutions and campaigns by evangelicals over the past 40 years shows that anti-environmentalism within conservative Christianity stems from fears that "stewardship" of God's creation is drifting toward neo-pagan nature worship, and from apocalyptic beliefs about "end times" that make it pointless to worry about global warming.

Based on the above-mentioned discussion, the Church's position on environmental issues is definitely polarised, thus, showing that it still plays a peripheral role on related public discussions and debates (Kiari 2020:1ff). This is regrettable because the Bible sanctions the Church to lead the ecological discourse (ibid). Now, the underlying question is: *is there a theological concept in the Bible that can operate as a springboard for Christians to be involved in the efforts to care for the environment*? In answering the aforesaid question, the paper proposes biblical stewardship as a nexus for environmental protection. That is, the aforesaid concept should persuade the Church to be a significant stakeholder in the global efforts to protect the environment. Stated differently, as the climate crisis worsens, the concept may challenge Christians' moral authority 'to play a decisive role in swaying public policy toward (or away from) action to mitigate global warming' (Zaleha & Szasz, 2015:19). Thus, the Church, as 'the conscience of society' should have proper theologies that drive it to accomplish its divine mandate to save the world, including the ecosystem (Kiari, 2020:6). In Kiari's (2020:6) view, 'the first step to consciousness of this is to condemn the environmental destruction of Mother Earth', however, the Church's responsible action to the proposed matter must be embedded in proper theology, such as the biblical concept of stewardship discussed below.

4. The concept of biblical stewardship as a nexus for environmental protection

4.1 Rooting biblical stewardship within the framework of the importance of creation to God and humanity

Before discussing biblical stewardship, it is important to embed the concept in a biblical framework that establishes the importance of the environment to God and humanity (cf. Hyneman 2013:12, Le Roux 2017:206, Bauckman, 2002:141 & Esler 1998:223–224). The conception that God views creation as beautiful and important is embedded in creation narratives in Genesis 1:4, 10, 12, 18, 21, 25, 31 in which God himself saw that his creation; that is, nature and man, were 'very good'. Throughout Scripture (cf. Colossians 1:16-17; Hebrews 1), the entire creation matters to God, and he continuously sustains it by his power. This notion

is important because it establishes God as self-derived and self-existent and, to him, the entire creation owes its existence and sustenance. As a point of departure, the aforementioned biblical conception should be properly understood, because it is the foundation of biblical stewardship. It challenges humanity to be conscious of the reality that the current global warming and, consequently, climate change stem from the irresponsibility of humankind, which results in the various climate related disasters that were discussed in section 1.2.1. It cannot be doubted that irresponsible human activities culminate in environmental exploitation and degradation, yet God regards the very environment as precious.

It is clear that the environment is not only precious to God, but to humanity as well. This conception arises from the notion that, after creating the entire creation (Genesis 2:9, 12), God mandated man to use all the natural resources to meet his material needs. This notion corresponds with the following affirmation:

> Part of God's provision for the welfare of humankind is that He created and mandated the use of plants, animals and resources (the biophysical world) to meet humankind's physical and material needs (Le Roux, 2017:206).

However, from a missiological perspective, recent theologies also consider the ecosystem as precious as it is a source of motivation and encouragement for human faith and love for the Creator. Through the natural world, humanity can be conscious of the existence of God, the Creator, as attested by Romans 1:20 (Peterson 2008:192, Magezi & Magezi, 2016:7; Hyneman, 2013:12). However, it should be categorically qualified that God uses the natural world to reveal his existence to humanity, however, this revelation has limited insight to the divine nature (Peterson 2008:192; Magezi & Magezi 2016:7)[3]. People can be saved by the special revelation of God, which is Jesus Christ revealed in Scripture (Peterson 2008:192, Hyneman 2013:12, Magezi & Magezi 2016:7). The biblical concept of stewardship, which is discussed below, fits into this framework.

4.2 Defining Biblical stewardship as a nexus for environmental protection: Towards Missiological Implications

A considerable number of scholars such as Le Roux (2017:206), Bauckman, (2002:141), Esler (1998:223–224), Horrell *et al* (2008:223–224) opine that,

3 However, I am conscious of scholars, such as Sennett (2005:313), who use Romans 1:20 to advance a philosophical argument that if the general/natural revelation results in God condemning non-Christians, then it should be logical that it can also save people. However, due to space constraints, this paper will not deal with the issue. It should be noted that Sennett's (2005:313) argument was refuted in Peterson's (2008:192) and Magezi and Magezi's (2017:1-8) articles, *Inclusivism versus exclusivism on key biblical texts* and *Soteriology on the interface of traditional African religion and Christianity: Engaging Bediako's soteriology and a soteriological alternative*, respectively. Thus, for more information on Sennett's position, one should read the work itself, which is referenced in the bibliography. Further reference can be made to critiques by Peterson (2008) and Magezi and Magezi (2016), which are also referenced in the bibliography.

although the Bible fundamentally deals with the doctrines of creation, sin, redemption and consummation of salvation in the Parousia, the very same holy book speaks about the beauty and significance of the creation of God and it also stipulates some environmental management and conservation principles (Ps 8:3–8; I Ch 16:7, 30–34; Job 9:5–10; Rom 1:20; 3:23; 5:8; 6:23; 10: 9, 13). Le Roux (2017:205) that the Church and, consequently, Christians are the stewards of God's creation, so they have the responsibility to take care of the environment. The concept of stewardship is embedded in the Bible, especially in the narrative of Genesis, in which God designated human beings as custodians of his creation. I concur with Le Roux's (2017:205) assertion that the biblical notion of stewardship should position the Church to make significant contributions to environmental care.

According to Merriam Webster Dictionary (n.d:n.p), the term steward refers to one hired 'in a large household or estate to manage domestic concerns', including servants' supervision, debt or rent collection and accounts management. Stewardship refers to the 'conducting, supervising, or managing of something' on behalf of someone (ibid). The word stewardship initially featured in English in the middle age, and it operated as a job description in reference to the office of a steward, or a manager of a large household (ibid). It should be noted that, from a management sense, the term stewardship has progressively acquired a more positive connotations namely: a person's 'careful and responsible management' of something entrusted to him/her, such as business, the environment and many other things. Van der Walt (2012:3) defines stewardship as an act of taking 'care of something entrusted to one, to manage another's estate or property, the charge committed to one.' This is the working definition that will be adopted in this paper.

Thus, I coincide with scholars like Boloje and Groenewald (2014), Van der Walt (2012) and Venter (2022), who support the biblical perspective that God entrusted human beings to be the stewards of his creation. Boloje and Groenewald (2014:1) notes that people often associate the term stewardship with money, yet it is 'only a fraction of our total Christian stewardship', which can be viewed from different viewpoints. The comprehensiveness of Christian stewardship, which includes ecosystem management and all that it comprises, is rooted in Genesis 1:28 and 2:15. It should be noted that, in the wider context of Genesis, the epitome of God's creation is man. God placed Adam and Eve in the Garden of Eden and he explicitly sanctioned them to take good care of the environment, which comprises living and non-living creation, on his behalf (cf. Gn 2:4–3:24). This can be interpreted as God's charge for human beings to order and rule his precious creation without abusing it for their personal gain. In so doing, God's precious creation will flourish in many ways, some of which are highlighted below.

Firstly, good stewardship allows creation to be fruitful and reflect the glory of God, while also benefiting humankind (Hyneman, 2013:12). As attested by Psalms 19:1-4, creation glorifies God in the goodness and splendour of its own existence and order (ibid). This is in sharp contrast to the ancient Near East

world that regularly viewed the sun as an object of worship (ibid). A closer look at Psalms 19:1-4 shows that creation must not be worshiped, as it simply affirms that God reigns over the entire universe (ibid). In other words, the universe was designed to instruct humanity about the rule of God (ibid). In light of what Psalms 19:1-4, which attests that 'creation glorifies, praises, exalts and celebrates God', I concur with Hyneman's (2013:12) claim that human beings are stewards of God's creation, so they are supposed to care for it in a manner that backs the aforesaid scripture (ibid). In so doing, humanity exhibits proper worship to God, who himself views his creation very highly, as it glorifies him (ibid). In corroboration, Magezi and Magezi (2016:7) and Le Roux (2017:206) argue that, as it sustains living creatures and humanity, nature reminds man of the existence of God .

At this juncture, one can assert that the biblical concept of stewardship, which emerges in Genesis, presents humankind as tenants in the Garden of Eden, and God as the owner, who sets the rules of how his household should be administered during his absence (Muwadzuri, 2014:42; Hyneman, 2013:10-11). This shows that the biblical concept of stewardship does not elevate humankind to the status of the owner of the environment (ibid). For instance, after creating Adam and Eve, God commanded them to be fruitful and multiply and fill the earth and to have dominion over the living creatures in the land, air and in the sea (Genesis 2:8). Now, if God commanded humankind to have dominion over all other creation, then all the descendants of Adam must safeguard their well-being in order to ensure that the ecosystem functions as a self-existing entity. For example, for the well-being of aquatic and terrestrial creatures (including fellow humanity), we should keep the water and air clean. This entails maintaining healthy pastures and ensuring land fertility for sustainable agriculture, thus, guaranteeing that both human beings and animals are food secure. If anyone exhibits contrary behaviour and actions, it means that he/she is exploiting the environment in ways that hamper it from reaching its God-intended goals and purposes.

In Genesis 3:1-24,God sanctioned Adam and Eve not to eat from the tree of the knowledge of good and evil because they would certainly die (Muwadzuri, 2014:39). Thus, as stewards of God's creation, Adam and Eve had the responsibility to utilise the ecosystem in accordance with God's intended plan (ibid)[4]. God has the ultimate say on matters of life and creation, and this is evidenced by the punishment that he meted out to Adam and Eve when they violated his instruction (Muwadzuri, 2014:39; Hyneman, 2013:11). That is to say, as Adams descendants, humanity is sanctioned to manage the ecosystem in a responsible manner, lest they incur God's judgment. There is no doubt that the whole world and all that is in it, including humankind, belongs to God (Psalms 24; Lev. 25:23; Deut. 10:14). In the following citation, Hyneman (2013:10) sheds more light on the preceding explanation:

Humans have no innate ownership of creation. Rather, the Creator owns creation. Humanity has been given a very important role in the created order,

4 These aspects were discussed in the preceding subsection.

but the Scriptures are clear that God has ownership over creation. Humanity's role with regard to creation must be discerned from the first principle: that God is owner. Humanity inhabits creation, but it is not ours. Since God is the owner of creation, we look to God's Word to determine how we should interact with creation. The Scriptures show that creation – including the earth, its natural systems, plants, animals, people and all other things – is God's.

It is important to note that the priestly nation of Israel still venerates the conception that God judges those who mismanage creation. In this case, it should also be observed that, while God is the creator and owner of the universe, Israel is the vehicle of his salvation to the nations. Even in the promised land, the Israelites were compelled to observe certain regulations that reminded them that they were stewards of God's land, whose use is supposed to ensure prosperity for all people, including the landless widows, orphans and aliens. For instance, in Deuteronomy 25:19, the Israelites were reminded that the land they were inhabiting was their gift from God, but it entirely belonged to him. Thus, the Israelites understood that they could not do as they pleased with God's land. In Exodus 23:10-11, God instituted legislation that clearly reminded them of this actuality. In the proposed text, God sanctioned the Israelites to let his land lie fallow every seventh year so that it could rest from planting and harvesting. Farmers can understand that God wanted the land to regain fertility so that it could be fruitful in providing for the needs of all people, including the landless and the aliens (Leviticus 23:22). However, over time, the Israelites violated the sanctioned sabbath rest of the land and God punished them by sending them into captivity, as shown in 2 Chronicles 36:20-21 (cf. Gowan 1998). This scripture explicitly attributes the fall of Jerusalem in 586 BC and the subsequent Babylonian captivity to the violation of the aforesaid law.

In light of the foregoing discussion, I argue that Christians, as people who were saved to advance God's plans and purposes in the world, should take environmental concerns more seriously, because God's eschatological judgment is real (Miller, 2009:32ff, Jones, 2007:130, Hyneman, 2013:12). This judgment does not only affect Israel, as Revelation 11:18 plainly states that God will destroy those who destroy his precious earth, including Christians and non-Christians (ibid). I am conscious that González (2015:91-107) in his article titled *Destroyers of the Earth in Revelation 11:18 – Who are they?* conducted an exegetical study that dismisses the use of this passage to encourage environmental protection practices. However, some leading Revelation commentators refute González's (2015) conclusion. For example, Miller (2009:32) and Jones (2007:130), did some exegetical work on the proposed passage and concluded that it challenges all humanity to protect the environment. Miller (2009) notes that, according to Revelation 11:18, all those that are destroying the planet will face God's wrath for their actions. The author emphatically concludes by declaring that:

> …we have the capacity to destroy ecosystems on a global scale. Our scientific belief in this horrific potential parallels the biblical judgment that the destroyers of the earth themselves will be destroyed.

Thus, in taking Jones (2007) and Miller's (2009) lines of thought, I argue that the judgment in Revelation 11:18 is for all humankind, as all the descendants of Adam and Eve were given the responsibility to take care of the environment . In corroboration, Muwadzuri (2014:42) states that:

> If humankind does not keep, preserve and nurture the earth as mandated by God, they shall be found guilty for destroying the earth and be liable for God's judgment. Therefore, humanity has to make an effort to take care and protect the earth and develop a deep understanding of the fact that the entire human race is a recipient of the stewardship mandate, which comes with accountability.

With the aforesaid in mind, I submit that the fear of God's judgement with regard to how one treats the ecosystem should encourage responsible environmental response. In other words, Christians are custodians of God's creation, so they should avoid God's judgement by managing the environment in a responsible manner.

Further, the fact that God judges people on the basis of how they treat the environment is of utmost significance, as it challenges people with limited understanding of the notion of God's accountability. As Hyneman (2013:12) notes, for Christians, accountability does not only imply defiance of God's direction, instead, it also extends to how they treat the environment. At this point in our discussion, I am, however, still quite aware that the Adamic sin has universal consequences for all creation and their relationship with God and and other 'human and non-human species' (Hyneman, 2013:12). However, although the Adamic sin in Genesis 3 affected all humankind (Romans 5:12-19), including the entire ecosystem, as Paul attests in Romans 8:22; this does not mean that human sin would cause God to abandon creation, because it is precious to him. The Bible clearly states that the universe was also saved by the redemptive acts of Jesus Christ, and just like humanity, it is waiting for his return to consummate its complete renewal and recreation (Romans 8:22).

Thus, it is clear that God, in the person and saving work of Christ, saved the entire creation. However, with the concept of the overlapping of ages in mind, I proceed to declare that God in Christ is continuously busy renewing or recreating creation until it attains the original goal that he intended and purposed for it before the fall. As captured in the book of Isiah 65, the Old Testament looked forward to this recreation, which Jesus Christ accomplishes in the New Testament. This aligns with the views of leading scholars such as Torrance (1995:84), O'Donovan (2001:11), Bonnhoefer (2009:49) and De Wit (2013:2-3), who advocate for Christocentric ethics that make the person and redemptive work of Christ fundamental to reflection on Christian ethics, which are intrinsic to what

God has done in and through Christ. In this instance, humanity seeks to find principles and guidance from God's self-disclosure in the person and work of Jesus Christ. As a representative voice of Christocentric ethics, Torrance (1995:84) argues that:

> …as the arche in this creaturely economic form, Jesus Christ is the Head of all creation, the one source and controlling Principle with reference to whom we are to understand all the ways and works of God.

In support of the above argument, Bonnhoefer (2009:49) helpfully observes that :

> [The] source of a Christian ethic is not the reality of one's own self, not the reality of the world, nor is it the reality of norms and values. It is the reality of God that is revealed in Jesus Christ.

In corroboration with the abovementioned Christocentric Christian ethics scholars, I have to reinforce that in this overlapping of ages era, all creation, including Christians, continue to look forward to the eschatological consummation of the new earth (Revelation 21), which will bring the fullness of life that God had planned and purposed before the fall. In that eschatological life, Christians will be truly at home, where God will physically dwell with them, as they live by his rule and worship him (Revelation 22:4). From a missiological perspective, one can argue that Christ's salvation is comprehensive as it involves the entire creation, including the environment. In an article titled, *Environmental change and salvation theology in African Christianity*, Golo (2012:348) agrees that the notion of comprehensive salvation of Jesus Christ involves the entire creation. Nevertheless, Golo (2012) bemoans that African Christians do very little in terms of environmental protection because they inherited limited theology of salvation from the early missionaries, who focused on the salvation of the souls at the expense of the entire creation, which Christ's saving person and work addresses. Thus, in trying to position African theological thinking on environmental concerns, Golo (2012:348) argues that:

> …for African Christians to better configure salvation theology to creation faith there is the need for configuring Jesus Christ through an ecological lens and consequently correlating the implications of the theological claims to salvation wrought through Him to the salvation of creation.

In my view, the abovementioned understanding that Christ's salvation is vast and comprehensive in nature, as it involves the whole creation, including the environment, can possibly be misconceived by some Christians. This misconception is likely to stem from Revelation 21, which may be misconstrued as implying that this current creation will pass away and make way for a new heaven and a new earth that God will bring down from heaven. By interpreting Revelation 21 in the aforesaid manner, this school of thought may neglect the environment because they are awaiting a new heaven and new earth, therefore, there would be no need for them to bother themselves with caring for the current cosmos. Once

positioned that way, these Christians may tend to solely focus on evangelising to the lost souls, whilst the ignoring the environmental crisis that is depicted in section 1.2. of this paper. However, I would respond by arguing that an ordinary Christian who pays attention to the benefits and services of the ecosystem to humankind will not entertain the aforementioned misconception as an excuse to ignore the current ecological crisis. It should be understood that human beings get food, water, oxygen, mineral resources and many other things that enhance their welfare from the environment. With this in mind, it would be myopic to use the concept of an eschatological new heaven and new earth as an excuse for refraining from participating in environmental protection. Nonetheless, given the aforesaid biblical concept of stewardship and its interrelated aspects, and the possible misconceptions of stewardship, it would be justifiable to conclude that:

> The Church is consequently well-positioned to make a significant contribution in addressing the environmental crisis by developing, preaching and practising a holistic spirituality that promotes a custodial ethic towards the natural world (Le Roux, 2017:205).

5. Conclusion

This paper presented the pervasive growing concern for environmental issues by indicating that various stakeholders, including national governments, intergovernmental and international bodies, are working tirelessly to address global warming and, consequently, climate change. Disasters that stem from these phenomena continue to pose threat to food security for humans and non-humans. Unfortunately, the Church, as an ordained community of God, has largely refrained from engaging in holistic ministry, thus, environmental protection issues remain at the periphery of Christian discourse. In addition, the Church barely engages in the public discussions and debates that can shape positive attitudes towards the environment. Thus, in response to this challenge, this paper proposed the biblical concept of stewardship as a nexus for environmental protection. Prior to discussing biblical stewardship, the paper developed a biblical framework on which the concept should be embedded. This framework presented the importance of the natural world for both God and humanity, as the basis on which Christian-centric environmental stewardship should be viewed.

Further, the paper defined the biblical concept of stewardship in ways that presented human beings, particularly Christians, as God's agents and earthly representatives. From another perspective, Christians were presented as tenants within God's environment. Thus, God is the owner and creator who sanctions the manner in which the environment should be used. Having clearly established their obligations from the point of view of biblical stewardship, the paper advanced that Christians should never have polarised views on environmental concerns, but they should take the lead in championing environmental protection. This implies that obedience to God's word is not simply synonymous with preaching the gospel

for the salvation of souls, but it also entails involvement in environmental issues. Thus, Christians should lead the environmental protection crusade by engaging in practices that promote, rather than harm, the productivity of the ecosystem.

From a practical perspective, the biblical concept of stewardship was used to challenge the Church and, consequently, Christians to preach and teach environmental awareness in Church and non-Church spaces (community or society at large). The concept was also used to challenge Christians to be vocal against those who abuse the environment by influencing local, national and international authorities to develop policies that promote the well-being of the environment. Such actions will significantly reduce climate related disasters. In doing this, the Church would be taking its God ordained holistic ministry seriously. This corresponds with the vast and comprehensive mission of Christ's salvation, which involves the entire creation, including the environment. The reality of God's judgment for the manner in which humanity treats the environment was discussed comprehensively. Therefore, the conception of the fear of God's judgment was reinforced as a nexus for encouraging responsible environmental responses among Christians.

Bibliography

Allen, B. 2008. Studies show rise in greenhouse gases in 2007. *The Baptist Standard: The Texas Baptist Newsjournal*. viewed 08 January 2020, from https://baptistnews.com/archives/item/3693.

Balasubramanian, A. 2008. Ecosystem and its components. viewed 09 January 2024, from https://www.researchgate.net/publication/314213426_ECOSYSTEM_AND_ITS_COMPONENTS

Barna Group. 2007. Born again Christians remain skeptical, divided about global warming. Viewed 07 January 2024, from http://www.barna.org/barna-update/article/20-donors cause/95-born-again-christians-remain-skeptical-divided-about-global-warming.

Boloje, B. O. & Groenewald. 2014, Hypocrisy in stewardship: An ethical reading of Malachi 3:6–12 in the context of Christian stewardship. *HTS Theological Studies,* 70(1):1-11. https://doi.org/10.4102/hts.v70i1.2086

Brutas, C. Different types of ecosystems. viewed 09 January 2024, from https://www.scribd.com/document/253390926/DIFFERENT-TYPES-OF-ECOSYSTEMS-docx

De Wit, M.P. 2013. Christcentred ethical behaviour and ecological crisis: What resources do the concepts of order in creation and eschatological hope offer? *Koers – Bulletin for Christian Scholarship,* 78(1):1-8. https://doi.org/10.4102/koers.v78i1.46

Earthjustice. 2022. Electric vehicles are not just the wave of the future, they are saving lives today. viewed 08 January 2024, from https://earthjustice.org/feature/electric-vehicles-explainer

Esler, P.F. 1998. Christianity for the twenty-first century. Edinburgh: T&T Clark Ltd.

Fearnhead, P. 2022. Protecting Africa's intact nature: The most effective action to increase climate reliance. viewed 08 January 2024, from https://www.africanparks.org/protecting-africas-intact-nature?gclid=CjwKCAiA1-6sBhAoEiwArqlGPjDvIxcOcgZr9jYsGX1kpgilVqMqepjtKKCoZBJC9CCgyHgtlPyCZhoCch4QAvD_BwE

Feedback Madagascar. n.d. Help us fight climate change - plant a tree this Christmas. viewed 08 January 2024, from https://www.feedbackmadagascar.org/climate-change?gad_source=1&gclid=CjwKCAiA1-6sBhAoEiwArqlGPub-wvT4M3kcl1_exOg-FWR3Ks_vBH8BcmTGmTEQsw5cd0rgp-BN9BoCuk0QAvD_BwE

Bonhoeffer, D. 2009. Ethics. Minneapolis: Fortress Press.

O'Donovan, O. 2001. Resurrection and Moral Order: *An Outline of Evangelical Ethics*. Leicester: Inter-Varsity Press.

Golo, B.K. 2012. Environmental change and salvation theology in African Christianity. *Scriptura*, 111(3):348-361. https://doi.org/10.7833/111-0-17

González, E. 2015. 'Destroyers of the Earth' in Revelation 11,18 – Who are they? *DavarLogos* 14(1): 91-107, viewed 13 January 2024, from file:///C:/Users/24794376/Documents/UNISA%20APPLICATION%20FOLDER/Stewardship%20Readings/Dialnet-TheDestroyersOfTheEarthInRevelation1118-5792225.pdf

Gowan, D. E. 1998. Theology of the Prophetic Books: The Death and Resurrection of Israel. Louisville: Westminster John Knox Press.

Green Infrastructure- Austin. n.d. Chapter Four – Ecosystem Services. viewed 09 January 2024, from https://www.webpages.uidaho.edu/~gaustin/pdf/GI%20Chap4.pdf

Horrell, D.G., Hunt, C. & Southgate, C. 2008. Appeals to the Bible in ecotheology and environmental ethics: a typology of hermeneutical stances. *Studies in Christian Ethics,* 21:219–238. https://doi.org/10.1177/0953946808094343

Hyneman, J. 2013. Why Are We Stewards of Creation? World Vision's Biblical Understanding of How We Relate to Creation. viewed 12 January 2024, from https://www.wvi.org/sites/default/files/World%20Vision%E2%80%99s%20Biblical%20Understanding%20of%20How%20we%20Relate%20to%20Creation_Full.pdf

JBA Risk Management. 2022. South Africa: KwaZulu-Natal floods. viewed 10 January 2024, from https://www.jbarisk.com/products-services/event-response/south-africa-kwazulu-natal-floods/

Jones, G.E. 2007. A Verse By Verse Commentary on Revelation. East Sussex, UK: Garners Books.

Kiariei, G.K. 2020. Environmental Degradation: What is the Role of the Church in Environmental Conservation in Kenya from 1963–2019? viewed 12 January 2023, from https://www.scielo.org.za/pdf/she/v46n2/04.pdf. https://doi.org/10.25159/2412-4265/6762

Le Roux, C.S. 2017. How environmental stewardship is viewed and evidenced in the Uniting Reformed Church of Southern Africa: *An appraisal of students.* lecturers' and ministers' perceptions. *Stellenbosch Theological Journal,* 3(1): 205-225. https://doi.org/10.17570/stj.2017.v3n1.a10

Magezi, V. & Magezi, C. 2016. Soteriology on the interface of traditional African religion and Christianity: Engaging Bediako's soteriology and a soteriological alternative. *In die Skriflig* 50(1):1-8. https://doi.org/10.4102/ids.v50i1.2068

McKnight, S. 2020. Why Don't Evangelicals Care about the Environment? viewed 05 January 2024, from https://www.christianitytoday.com/scot-mcknight/2020/june/why-dont-evangelicals-care-about-environment.html

Merriam Webster Dictionary. n.d. Stewardship. viewed 12 January 2024, from https://www.merriam-webster.com/dictionary/stewardship

Miller, N. 2009. Cases in Environmental Politics: *Stakeholders, Interests, and Policymaking*. New York: Routledge.

Munyati, C. 2022. How South Africa's recent floods compel climate action. viewed 08 January 2024, from https://climatechampions.unfccc.int/how-south-africas-recent-floods-compel-climate-action/?gclid=CjwKCAiA1-6sBhAoEiwArqlGPiqiKtTQKFs60PYkcpsB6vq8jdDjxJekNuc8-Z5Qh1FvXZm6k4dh-BoC-AcQAvD_BwE

Muwadzuri, R. 2014. Biblical environmental protection: Seven keys for Christians leaders. Liberty University Baptist Theological Seminary. PhD thesis. viewed 13 January 2024, from https://core.ac.uk/download/pdf/58825571.pdf

Palmer, N. 2023. COP28 Event Highlights Urgent Need to Accelerate Development and Implementation of National Adaptation Plans, UN Climate Change news. viewed 08 January 2024, from https://unfccc.int/news/cop28-event-highlights-urgent-need-to-accelerate-development-and-implementation-of-national

Peterson, R. 2008. Incusivism versus Exclusivism on key Biblical texts. (in Morgan C.W. & Peterson R.A. eds. A response to inclusivism: Faith comes by hearing. Downers Grove, ILL: IVP Academic. p. 184–200.

Reliefweb. 2023. Madagascar: Floods and Landslides - Jan 2022. viewed 08 January 2024, from https://reliefweb.int/disaster/st-2022-000138-mdg?gad_source=1&gclid=CjwKCAiA1-6sBhAoEiwArqlGPilzAvxPcDBX2tPVadlrr6C-FUh89S4kvMIexu1ivCFL5dRwPO4pRBoCT6EQAvD_BwE

Reliefweb. 2023. Malawi 2023 Tropical Cyclone Freddy Post-Disaster Needs Assessment (April 2023). viewed 08 January 2024, from https://reliefweb.int/report/malawi/malawi-2023-tropical-cyclone-freddy-post-disaster-needs-assessment-april-2023?gad_source=1&gclid=CjwKCAiA1-6sBhAoEiwArqlGPhVTKH3sEhvP3ucpsY5e61YWCdf7UU1Z-ooUnv56c0T-dq9hQCH4PxoCFFMQAvD_BwE

Reliefweb. 2023. South Africa: Floods - Sep 2023. viewed 10 January 2024, from https://reliefweb.int/disaster/fl-2023-000200-zaf

Robinson, D. 2024. 15 Biggest Environmental Problems of 2024. viewed 08 January 2024, from https://earth.org/the-biggest-environmental-problems-of-our-lifetime/

Robinson, W. 2009. Environmental concerns of the World Council of Churches. Viewed 12 January 2024, from https://www.academia.edu/2566737/Environmental_Concerns_of_the_World_Council_of_Churches

Samadhiya, H. 2024. Ecosystem: Structure and Types. viewed 09 January 2024, from https://www.jiwaji.edu/pdf/ecourse/zoology/Ecosystem%20Structure%20and%20Types%20%20ecosystem.pdf

Sennett, J.F. 2005. Bare bones inclusivsim and the implications of Romans 1:20. *Evangelical Quarterly,* 77(4):309–319. https://doi.org/10.1163/27725472-07704002

Torrance, T.F. 1995. The Trinitarian faith, Edinburgh, NY: T & T Clark,

United Nation Environmental Programme (UNEP). 2024. Facts about the nature crisis. viewed 08 January 2024, from https://www.unep.org/facts-about-nature-crisis?gad_source=1&gclid=Cj0KCQiAtOmsBhCnARIsAGPa5ybYpymVOcNHfULC8huZ-DredBgMcfKA9IdiDXogq86jBPhJ0P2FLt0aAoxxEALw_wcB

Van der Walt, J.L. 2012. Another look at education from a Christian stewardship perspective. *Koers* 77(2):1-7. https://doi.org/10.4102/koers.v77i2.428

Venter, F. 2022. Environmental Stewardship: *Confluence of Law and Religion? Pioneer in peer-reviewed,* 25: 1-30. Viewed 2 January 2024, from https://www.ajol.info/index.php/pelj/article/view/236862. https://doi.org/10.17159/1727-3781/2022/v25i0a13879

Zaleha, B.D. & Szasz, A. 2015. Why conservative Christians don't believe in climate change. viewed 06 January 2024, from https://journals.sagepub.com/doi/10.1177/0096340215599789