Sapientia Global Journal of Arts, Humanities and Development Studies (SGOJAHDS), Vol.4 No.3 September, 2021; p.g. 23 – 31; ISSN: 2695-2319 (Print); ISSN: 2695-2327 (Online)

RELIGIOUS INTERPRETATION OF GLOBAL WARMING IN THE LIGHT OF MATTHEW 24:3-7

ONYEKACHI GIFT CHUKWUMA (PhD)
Department of Religion and Cultural Studies
University of Nigeria, Nsukka

&

ONAH, TOBIAS CHIBUIKE (PhD)
Department of Religion and Cultural Studies
University of Nigeria, Nsukka

&

EZE, VIRGINUS UCHENNA (PhD)
Department of Religion and Cultural Studies
University of Nigeria, Nsukka

Abstract

This paper discusses the religious perspective of global warming in the light of Matthew 24:3-7. It is observable that there is a clear indication of some significant disorder in weather condition. This disorder in weather has resulted to devastating consequences. Global warming has been attributed to be the cause of this weather disorder. Many factors have been given as the cause of global warming and many solutions have been proffered to at least mitigate its effect. The data for this research was drawn from both primary and secondary sources. While the primary source consulted is the Bible, the secondary sources are books, journals and internet materials. The methodology adopted in this study is biblical exegetical method. The major finding of this work is that global warming, with its devastating effects, is a sign of the end of the age.

Keywords: **Matthew 24: 3-7, Religion, Global warming, Climate Change, End of age.**

Introduction

Global warming has attracted the attention of scholars in various fields of scholarship as its reality is obvious. Initially, scholars were skeptical as to the authenticity of global warming (Onuoha and Ozor, 2010). However, global warming being apparent, scholars including those in religious circle have engaged in research in order to find an interpretation and a lasting solution to it. Many factors have been attributed as the cause of global warming which is having devastating effect on man and the environment. Nasr posits that "the environmental crisis is fundamentally a crisis of values" http://en.wikipedia.org/wiki/religion_and_environment. Man has failed to develop eco-friendly attitude in dealing with the environment. The manner in which man has carried out his activities ranging from bush burning; dumping of refuse, mining of natural resource etc. has caused and endangered the earth. Man is unable to maintain a standard of moral life in

dealing with the environment. Ituma (2010:267) avers that "the morality of human actions requires that we justify the purpose of our actions in a divine context".
However, although global warming is said to have been mainly caused by human activities, Diara (2011) posits that it is an eschatological event that will usher in the second coming of Jesus Christ. His argument is based on the biblical assertion contained in Mark 3-8, Matthew 24:3-7 and Luke 21:8-11. He argues that no amount of effort to mitigate or adapt to the present environmental crisis will be able to alter the divine order as it concerns the eschatological fate of the cosmos. From the foregoing, God is also implicated in global warming. The fate of man and his environment then is in the hand of God. No wonder every effort that has been made both by local and international bodies have not yielded the desired result. This paper, therefore, posits that although human activities have contributed much to global warming, it is the fulfillment of God's prediction.

An Overview of the concept 'Global Warming'
Global warming is defined as the "gradual heating of earth's surface, oceans and atmosphere" (Bradford, 2014). It is also the increase of earth's average surface temperature due to effect of greenhouse gases, such as carbon dioxide emissions from burning fossil fuels or deforestation which trap heat that would otherwise escape from earth (http://www.nmsea.org).

Although there are some other planets that support life, earth is said to be the only planet where living things including man can comfortably live. The current environmental crisis is likely making the earth uncomfortable for both man, animals and plant to live. Since late 1800, average worldwide temperature is said to have risen. According to Environmental Protection Agency, earth average temperature has risen by 0.8 degrees Celsius over past century and that temperatures are projected to rise to another 1.133 to 6.42 degrees Celsius over next one hundred years (Bradford, 2014).

Earth's conducive atmospheric condition is 21% of Oxygen, 78% of nitrogen while carbon monoxide, hydrogen, methane, carbon dioxide, ozone, water vapour etc. share the remaining 1%. Global warming causes heat in the atmosphere due to emission of more percentage of gases at the expense of nitrogen and oxygen. This leads to the depletion of the ozone layer. Global warming is caused by greenhouse effect. According to Udok (2013),

> Greenhouse gases occur naturally according to the sovereign will of God, and without them, the planet would be too cold to sustain life. But since the beginning of the industrial revolution in the mid 1700s, human activities have added more of the gases into the atmosphere p. 181.

Water vapour is the most significant greenhouse gas. A slight increase in atmospheric level of carbon dioxide can cause a substantial increase in temperature leading to greenhouse effect. Oxygen and nitrogen which are the main constituents of the atmosphere are not greenhouse gases. Oxygen and nitrogen do not have more than two atoms per molecule and therefore lack internal vibrational modes that molecules with more than two atoms have. Water and carbon dioxide poses the internal vibrational modes that can absorb and re-radiate infrared radiation that can cause greenhouse effect. Carbon dioxide tends to remain in the atmosphere for as long as hundreds of years. Water vapour can condense or evaporate easily; depending on the local conditions. Water vapour level can adjust quickly to the prevailing conditions such that

the energy flows from sun and re-radiation from the earth achieves a balance. Carbon dioxide remains fairly constant and then behaves as a controlling factor, instead of being a reacting factor. More carbon dioxide in the atmosphere means that the balance occurs at higher temperatures and water vapour level. Man's activities on earth have led to enormous increase of carbon dioxide which has caused the atmospheric carbon dioxide to rise dramatically, resulting in greenhouse effect. Anthropogenic emissions among others are the main cause of global warming.

The impact of global warming is hazardous, enormous and is being felt by every living thing; man inclusive. Scholars have tried to enumerate the effects in various ways. Eze, Okwor and Ibenwa (2013) have noted the impact as excessive heat, flooding, drought and desertification, change in pattern of rainfall, poor harvest, temperature rise, rise in sea level, coastal erosion, disappearance of aquatic plants and animals. Also, the effects of global warming described as harbingers and fingerprints are enumerated on http://www.nmsea.org as follows;

1. Rising seas- inundation of fresh water marshlands (the everglades), low-lying cities and islands with seawater.
2. Changes in rainfall patterns- Drought and fire in some areas, flooding in other areas (Nigeria experienced severe flooding in 2013).
3. Increased likelihood of extreme events- Such as flooding, hurricanes, wildfire etc.
4. Melting of the ice caps- loss of habitat near the poles. Polar bears are now thought to be greatly endangered by the dwindling ice packs.
5. Melting glaciers- significant melting of old glaciers is already observed.
6. Widespread vanishing of animal population- following widespread habitat loss.
7. Spread of disease- migration of diseases such as malaria to new, now warmer regions.
8. Bleaching of coral Reefs due to warming seas and acidification due to carbonic acid formation- one third of coral reefs now appear to have been severely damaged by warming seas.
9. Loss of plankton due to warming seas- The enormous (900 mile long) Aleution island ecosystems of orcas (killer whales), sea lions, sea otters, sea, urchins, kelp beds and fish populations, appear to have collapsed due to loss of plankton, leading to loss of lions, leading orcas to eat too many sea otters, leading to urchin explosions, leading to loss of kelp beds and their associated fish populations.

The Text 'Matthew 24:3-7'

The reflections in the introductory part of this work explicitly established that the issue of global warming has assumed a religious undertone. The religious discourse on global warming has its bearing on the signs that would precede the second coming of Jesus Christ which in the Christendom is popularly known as 'Signs of the End of the Age'. This work, among other things, informs that the 'Signs of the End of the Age' (famines, pestilences, earthquakes) as reflected in Matthew 24:3-7 are indeed the effects or end results of global warming.

The relatedness of this all-important passage to the subject of global warming would only be laid bare if an exegetical study of the pericope were undertaken. Exegesis is simply a critical explanation or interpretation of a specific biblical passage. It involves an examination of a particular text of scripture in order to properly interpret it. To Stuart (1992), it is an analytical study of biblical passages undertaken in order to produce useful interpretations of those

passages. It is part of the process of hermeneutics; the science of interpretation. The exegetical study and application of Matt 24:3-7 would be based on the *New Revised Standard Version* (NRSV) of the Bible. Bright (2000) supports that among all the available English versions of the Holy Bible, the *New Revised Standard Version* stands very close to the original of the Scriptures. Based on this understanding, Matt 24:3-7 would be studied under the following sections:

Delimitation of Matthew 24:3-7*:* In a study of this nature which singles out some verses from a particular chapter of a book of the Bible, it is necessary to delimit the text. Mundele (2012:33) states that "to delimit the text that one wants to study is the first step the researcher has to do, whatever the method or approach he applies." Ska (1990:1) re-echoes that "one of first tasks of a literary analysis is the delimitation of the narrative units which are sometimes called macro- and micro- units (longer narratives and their subdivisions)" This examines why Matt 24:3-7 is studied as against the whole chapter or even book. In this sense, Matt 24:3-7 is seen as a literary unit that has a cohesive and significant message in itself.

The book of Matthew is one of the synoptic gospels. Other books in this category are Mark and Luke. These books are called 'Synoptic Gospels' because they almost have the same content or outline. No wonder, each of the synoptic gospels have discourses which center on the 'Signs of the End of the Age'. These discourses are presented either in parables or explicit statements /speeches. In these passages, (Matthew 24:3-7, Mark 13:8, 24-25, Luke 21:10-11, 25) the signs of the end of the age are given as earthquakes, famines, and plagues.

The book of Matthew has four major sections which include; the birth and ministry of Jesus Christ, the teachings of Jesus Christ, the miracles of Jesus Christ and the passion narratives of Jesus Christ. Matt 24: 3-7 falls under the category of the teachings of Jesus Christ and is also considered an appropriate pericope for this study because no other passage in this category or other parts of the book of Matthew made an explicit discussion on the 'Signs of the End of the Age'. Cook (2004) restates that no other book of the Bible is as valuable as the book of Matthew, whenever the issue of the signs of the second coming of Jesus Christ is discussed. Therefore, Matt 24:3-7 is a literary unit that is distinct from what precedes it and from the one that follows it. Mundele (2012) used the terms *terminus a quo* and *terminus ad quem* to express that. In Matt 24, only verses 3-7 captured the interest of the researchers as far as the issue of religious interpretation of global warming is concerned. Meanwhile, the core message of the pericope is in verse 7b which reads "and there will be famines and earthquakes in various places.

Structure of Matthew 24:3-7: Matthew 24:3-7 has a simple and coherent structure; two structural parts were identified. Simply, the first is a question while the second is an answer. Furthermore, in the first part (v.3), Jesus' disciples asked Him the sign of His coming and of the end of the age. The second part (vv. 4-7) presents Jesus' answer to the question asked by His disciples. In His answer, Jesus brought to fore the signs that will precede His coming. This is seen in vv. 6-7 which reads thus "And you will hear of wars and rumors of wars; see that you are not alarmed; for this must take place, but the end is not yet. For nation will rise against nation, and kingdom against kingdom, and there will be famines and earthquakes in various places".

Close Reading of Matthew 24:3-7*:* The structural analysis of Matthew 24:3-7 discovered that it has two parts. The close reading of this pericope would be done based on this double structure which would be titled appropriately based on its contents.

Jesus' Disciples Questions him*:* This title is considered most appropriate for the issues raised in Matt 24:3. The core message of this part is seen in the second part of v. 3 which is rendered thus "Tell us, when will this be, and what will be the sign of your coming and of the end of the age?" The very first structural part of Matthew 24 (vv. 1-2) gives an immediate context to the question which the disciples of Jesus asked in v. 3. In Matt 24: 1, Jesus' disciples expressed to Jesus their pleasure in the buildings of the temple. Henry (2000) describes the temple in these words: It was a stately and beautiful structure, one of the wonders of the world; no cost was spared, no art left untried, to make it sumptuous. Though it came short of Solomon's temple, and its beginning was small, yet its latter end did greatly increase. It was richly furnished with gifts and offerings, to which there were continual additions made.

Although Jesus' disciples expected Jesus to be pleased with the buildings of the temple as they were, He quickly made them to understand the utter ruin and destruction that would come upon the temple by replying thus "Truly I tell you, not one stone will be left here upon another; all will be thrown down" (v. 2b). In establishing the relationship between Matt 24:1-2 and Matt 24:3, Cook (2004) explains that the desire for material things which the disciples of Jesus expressed in v. 1 made them to become anxious of when the world will end as expressed in v. 3. It was difficult for them to believe that the buildings of the temple will not last forever.

In Matt 24:3, the disciples of Jesus perhaps recalled the subject of an earlier discussion they had with Jesus. The question "when will these be" refers to the statement of Jesus in v. 2b. This means "when is the time when not one stone will be left upon another but thrown down". The disciples may have understood that Jesus' statement in v. 2b referred to a time in the future; they went on to ask him "the sign of His coming and of the end of the age". It could be noted that the disciples asked three (3) distinct questions: When shall these things be? What shall be the sign of thy coming? What shall be the sign of the end of this world? Clarke (1832) explains that Jesus' disciples were interested in knowing when Jesus will execute judgment and establish His Church.

Jesus Answers the Question of His Disciples /Presents the Signs of the End of Age: This title is considered most appropriate because the verse which starts this structural part begins with the phrase "Jesus answered them". This title is also the major idea expressed in Matt 24:4-7. By implication, as Jesus answered the question of His disciples, He made bare the signs that would precede His coming which are also that of the end of the world. These signs are antichrists, wars, famine and earthquake. Clarke's (1832) commentary mentions false christs, wars, commotions, pestilence, famine, earthquakes, popular commotions, and fearful portents. It could be noted that Jesus' answers focused on the signs of the end of the age. It appears He said nothing about the destruction of the buildings of the temple. On this, Barnes (1834) notes that to these questions, He replies not by noticing them distinctly, but by intermingling the descriptions of the destruction of Jerusalem and of the end of the world, so that it is sometimes difficult to tell what particular subject his remarks apply. The principle on which this combined description of two events was spoken appears to be that they could be described in the same words and therefore the accounts are intermingled.

Religious Undertone of Global Warming In Matthew 24:3-7

In the preceding sections, the biblical text which served as a masterpiece for this study was given an exegetical analysis. This section aims at examining the aspects of global warming which correspond with the "Signs of the End of the Age" as reflected in Matthew 24:3-7. It informs readers that the climatic changes in the environment are nothing but pointers to the second coming of Jesus Christ. This work, therefore, presents a shift from the age-long science-based understanding of global warming. Since this study was based on a particular pericope, the re-contextualization of Matthew 24:3-7 would border on earthquake and famine which are among the effects of global warming as well as the 'Signs of the End of the Age'. Scholars such as Madu (2011) and Connor (2014) agree that famine and earthquake are hugely attributed to global warming.

In prophetic language, earthquakes sometimes mean political commotions. Literally, they are tremors or shakings of the earth, often shaking cities and towns to ruin. The earth opens, and houses and people sink indiscriminately to destruction (Barnes, 1834). Just as famine, God's judgment or visitation is described using the imagery of an earthquake and is often seen as a sign of the end of time. Many times, an earthquake is a sign of God's presence or of God's revelation of himself (Logan, 2003). Earthquakes also are often associated in Scripture with God's judgment against sin and the deliverance of Christ's people from death (Schwertley, 2003). The recent earthquake activity around the globe is related to climate change. Warming seas and a warming atmosphere, the drivers of climate change have effect on the slow process of plate tectonics, in which one plate shifts under or over another, occasionally producing the large earthquakes such as those that devastated the peoples of Indonesia, New Zealand, South America, and Japan to name but a few recent events (Connor, 2014).

The linking of wars, famines and pestilence is common in prophetic pronouncements of divine judgments. Ellis (2003) also concurs that the productiveness of the earth is related to people's obedience to God. The sins of Adam, Eve, and Cain resulted in unfruitfulness of the earth. Israel's relationship with God also directly affected the fertility of the Promised Land. Famine has become a worldwide phenomenon as predicted by Christ as a sign of His second coming. Global warming which leads to climate change threatens the earth's ability to produce food, leading to a huge decline in agricultural productivity. These effects worsen as climate change worsens. For every 1.8°F increase in global average surface temperature, we can expect about a 10% decline in yields of the world's major grain crops—corn, soybean, rice and wheat. Higher temperatures decrease rates of photosynthesis, reduce soil moisture, increase water demand and lead to increased survival of plant pests, diseases and weeds—all of which combine to reduce final yields. An increase in the number of days of extreme heat leads to large declines in crop yields, especially when they occur during key stages of plant development such as flowering and grain-filling. Extreme heat damages photosynthetic and reproductive cells, causing decreased growth and sterility, and can decrease grain quality (Kehrwald and Thompson, 2008).

Heavy rainfalls reduce crop productivity by a number of mechanisms. Flooding wipes out vast areas of crops and damages others. Heavy rains also cause significant soil erosion reducing long-term productivity. Waterlogged soils reduce plant growth and increase fungal diseases. Farming operations are often delayed when soils are too wet for heavy machinery and flooding can destroy farming supplies, machinery and other infrastructure. Finally,

coastal storm surges contribute to soil salinization making widespread areas unfit for planting (Lobell and Gourdji, 2012).

The climatic changes which affect agriculture include shrinking of glaciers, thawing of permafrost, later freezing and earlier break-up of ice on rivers and lakes, lengthening of growing seasons, shifts in plant and animal ranges and earlier flowering of tree. Uncertainties in the onset of the farming season due to changes in rainfall characteristics (early rains may not be sustained, and crops planted at their instance may become smothered by heat waves) may lead to an unusual sequence of crop planting and replanting which may result in food shortages due to harvest failure. Extreme weather events such as thunderstorms, heavy winds, and floods, devastate farmlands and can lead to crop failure (Madu, 2011). In some Northern states such as Yobe and Borno, migrating sand dunes have buried large expanse of arable lands, thus reducing viable agricultural lands and crops' production. It is an established fact that due to climate change, and as a means of adaptation, farmers in Northern Nigeria have continued to shift in the production of crops from millet to maize and beans as against the initial change from guinea corn to groundnut and maize (Diara, 2011). The reductions in crop yields may lead to falling agricultural production and higher prices for food which could trigger regional food crises.

Environmental stresses may cause mutations in crop diseases that increase their destructiveness. Heat and water stress reduce crop resistance to pests and diseases. The migration of pests and diseases in response to climate variations (e.g. the tsetse fly has extended its range northward) poses a threat to livestock in the drier Northern areas. Many crop pests, such as aphids and weevils, grow better and live in a wider range of areas in warmer temperatures and higher CO2 levels.5 Changes in climate also shift the geographic range and frequency of crop diseases, altering the predictability of outbreaks. Environmental stresses may cause mutations in crop diseases that increase their destructiveness. Heat and water stress reduce crop resistance to pests and diseases (Gornall and Betts, 2010).

Recommendations

Since it is expected to proffer solution to the discourse of this paper, the following recommendations are given;

1. Global warming is a divine arrangement. Man should then have moral value for his environment to avert further human induced global warming.
2. Since God is involved in global warming, Christian leaders should organize seminars, conferences and symposiums to inculcate in her member ways of mitigation and adaptation. This is because man must find solution to his problem even if the Divine is associated it.
3. Man instead of directing every effort on how to preserve the eco-system, he should also prepare himself for eternity. This is the purpose for which Jesus Christ came.

Conclusion

Global warming is a reality and man has indeed come to terms with it. All the efforts being made in mitigating its effects is not condemnable as this will help reduce the pace at which the effects of global warming is increasing. God who is all-knowing has predestined the end of everything. One of the signs is the disorder being experienced in the ecosystem that has brought about global warming. It behooves on man to take care and guard his environment

consciously and jealously to avoid fast-tracking what has already been divinely ordained. Global warming is a divine plan; therefore man cannot end or interfere in divine order.

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