

Responses to the Challenges of Climate Change through Religion

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&

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Abstract

Climate change is the departure of the characteristics and pattern of global climate from its normal state to a new state with the unpalatable consequences on the life systems of the earth. Climate change and its harsh consequences are blamed mainly on man and partly on nature. This sudden adverse change in the sequence of climate condition has become a source of worry to most people but more worrisome is the activities of man that contribute to this harsh condition and this attitude informed the topic under study. The problem however, remains the means and format by which man's attitudes can be successfully turn away from his destructive actions on the environment. The aims of the study are: i. to examine some of the activities of man that support climate change and emerging problems resulting mainly from man's activities. ii. to proffer solutions that will help to change the perceptions and attitudes of mankind to the global environment through religion, preferably Christian religion. The method adopted for the study is the descriptive phenomenological approach. This reflects the data collected from already existing library materials which were treated analytically and descriptively. The findings of the study validate the fact that man is the main cause of the adverse changes and not nature, and that solution is possible through religion.

Key words: Climate, religion, Change, Consequences, Man.

Introduction

The earth's climate supports life on earth. (Robinson and Henderson-Sellers 1999; Christopherson, 2006). The earth's climate derives from its unique position in the solar system. The earth is near enough to the sun to receive life-giving and life- sustaining energy from the sun and is also as far away from the sun that it is not scorched by the heat of the sun (Larson 2008). The unique position of the earth and the nature and dynamics of gases within the earth's atmosphere give the earth its climate. (Ojo et. al. 2001; Ayoade 2004). The components of the atmosphere relate in specific ways to produce the climate which mankind is used to. The aims of the study are to examine some of the activities of man that support climate change and emerging problems resulting mainly from man's activities. Finally, to proffer solutions that will help to change the perceptions and attitudes of mankind to the global environment through

religion, preferably Christian religion. The methodology adopted for the study is the descriptive phenomenological approach whereby data were collected from already existing library materials and treated analytically and descriptively. The finding of the study validates the fact, that human is the main cause of the adverse changes and not nature. And that solution is possible through religion. The tenets of religion especially the Christian religion are preferred as appropriate for bringing about attitudinal change that will arrest climate change. In this paper the concept, causes and effects of climate are examined. Ojo et. al (2001) defined climate as “ the total experience of weather at any place over some specific period of time.” Some authorities describe the time span for defining climate as from thirty to forty years, (Trewartha 1968). The climate being a system in quasi- stable state, lasts for a period long enough for it to be perceived as steady, predictable and characteristic of the place where it is and can change if its state is disturbed (Ayoade 2004) Paleogeologic, paleographic, paleoclimatological and archaeological evidence indicate that the climate of the earth is in dynamic equilibrium or quasi-static equilibrium (Velikovsky 1950, Ewing and Donn 1957; Ofomata 1981, IPCC 2001). The earth’s climate had changed in the past periods of the earth’s history in manners described by the Catastrophists under Cuvier as cataclysmic while the uniformitarianists held the changes to be slow and evolutionary but inexorably ending in changes in the landforms and other features of the earth’s surface. (IPCC 2001).

Causes and the Effects of Climate Change

Present day climate change is the alteration of the climate due to anthropogenic activities as opposed to natural causes Kellogg and Schwart (1983) UNFCCC (1994), IPCC (2001) and Okoye (2011) amongst others attribute the present climate change to the excessive emission of carbon gases called Green House Gases (GHGs) and other similar gases such as chlorofluorocarbons (CFC₄) into the earth’s atmosphere. These added gases alter the physico-chemical balance of the atmosphere and result in global warming and climate change. The other activities of man which accentuate the alteration of the composition of the earth’s atmosphere are deforestation, bad waste management practices, combustion of fossil fuels etc. These practices result in drastic consequences as presently experienced all over the earth and would continue to be experienced on greater scales and areal dimensions unless they are reversed (IPCC 2007, Okoye 2012).

While the anthropogenic angle of climate change has been canvassed, other models have been advanced. Two of these models are as the natural or cyclic model arising from the works of Milankovitch (1998), Roe (2006) and Rosenberg (2011) which rely the cyclical occurrence of climate change in terms of the cyclical variation of the earth’s orbit from spherical to circular shapes; cyclical changes in the angle of tilt of the earth’s axis, the precession of the earth’s axis and the passage of the solar system through various types and densities of stellar matter within the inter-galactic period of 310 years.

The third model is the model put forward in the story of the creation of the firmaments including the earth. This model is described in the Judeo- Christian Holy Bible: (Genesis 1 and 2; Ps. 24 verse 1; Job 38 verses 4-35). The model indicates that the earth and other heavenly bodies were created by God. Man was created to inhabit the earth and to work on the earth, take his resources from the earth with a caveat that he should “keep it (the earth)” (Genesis I, verse 28; Genesis 2 verse 15). The terms are “Keep” and “subdue”. In the two verses “keep” means utilize which means guided and procreative use while “subdue” means to bring under subjugation. (Merriam- Webster 2006). It was the argument of White (1967) that man subjugated the earth without any

sympathetic feelings and has brought the earth to its present status by his actions. Rabolu (No date) also accused mankind of wantonly destroying the earth by his wicked deeds against the natural systems.

The Christian Holy Bible acknowledges that man is torn between the service and worship of the Divine God and God's traducer, the Devil or Satan. The benefits and provices of following promptings of either of the two principal personages are also stated in various parts of the Holy Bible. The story of the Flood during Noah's Day and the fiery destruction of the Sodom and Gomorrah demonstrate, these two instances and show that God reserves destruction for mankind when he goes against his injunctions or dictates. Considering the fact that the service of God is perfect freedom, he expects mankind to act by choice and interest in line with his (God's) wishes as the Creator. The model sets out the rewards for obedience and punishment for wrongful acts. In this light, Timothy (24 verses 1-3) says that greed, selfishness, avarice, wickedness and perfidy will bring in "the last days, critical times hard to deal with". The paper therefore, argues that whether the cause of climate change come from man's unfriendly and invasive actions against the earth's environment or by natural process (Milankovitch 1998), the fate of the world now and in the future lies in the relationship between man and his environment according to the laws of his creator.

The 2013 Nobel prize in physics was awarded to physicists who claimed to have discovered the God Particle. The particle bequeaths mass to freshly made celestial matter. The position of this study from the basic laws of physics is that the acquisition of mass implies the attainment of specific identity and behavior in terms of position, location in space motion, influences etc. The God Particle is an explicit admission by science that all the cycles which affect human being and which human being reciprocally affects derive their effects from a source-God. The implication is not unfettered fatalism but a model in which the field has been put in place for mankind to navigate in the direction he chooses. The former Prime Minister was quoted as saying that the blunt truth about the politics of climate change is that no country is ready to sacrifice its economy in other to meet the demands made upon it to reduce it green house gas emission levels (Larson, 2006). This admission fits into the prediction of the IPCC (2007) that reducing the levels of carbon emission will result to 10% retardation in global economy. Jeremiah (10:23) posited that human being would be so carried away by his materialistic instincts that he will be unable to direct his steps. It is stated that when human beings have by their acts taken the earth beyond the tipping point or point of no return or difficult return, the time comes for "the conclusion of the system of brings". In the present circumstance, the carbon level in the atmosphere is 385 parts per million cubic litres of atmospheric gas and the target for reduction is 350 points per million if the earth's climate can be retrieved from irreversible destruction (www.wikipedia.com 2009). The various protocols especially the Kyoto Protocol (2009) and the Copenhagen Accord of do not contain any clauses that bind the industrialized nations (USA, Britain, Germany, the Benelux, Italy and Japan) and the emergent economics (Brazil, Russia, India, China and South Africa) from their continued pollution and damage of the earth's atmosphere. The situation is fuelled by "avarice, greed, competition, cant, perfidy and such similar attitudes "difficult to deal with" as predicted in the Holy Bible.

Given this scenario, this paper argues that the effective counter measure to materialism is the power of religion. The tool of moral suasion in meeting the challenges of climate change can be found in the areas of religion, ethics, mores, norms etc which transcends all the planes of reasoning to reach and exist in the ideal and ethereal and has

the force to turn the hearts of kings (political, social and economic leaders of the world) and take them back to God and having consideration for peoples. The IPCC (2007) said that the consequences of climate change for mankind and not the earth which “shall not be overthrown” or “made to totter to time indefinite or forever” (Ps. 104 verses) is dire and will cause changes some of which have started manifesting on earth.

The application of religion principles belong to the field of ecotheology (Ituma, 2009) and consists of the entire body of all measures derivable from the Holy Writs that can save the peoples of the earth from the effects of climate change. Christians have distilled all the measures in the biblical injunctions and those prescribed by science to ultimately boil down to a reversal of attitudes to the earth’s environment and this can only be done through religious tenets.

Kearns (2011) argued that every religion has within it, the seeds of ecological conservation. He further argued that the strategy to make people climate conscious is to solve the problem which poverty constitutes which is at the root of environmental degradation and particularly climate change. Ekpo (2012) agreed with the views of Vogts (2013) from his study in Nigeria. The same view was held by Ezezika and Adetona (2011). That attitudes change based on poverty reduction was necessary for attitude change to be achieved. In poverty ridden Nigeria, it was discovered that Nigerians do not believe in attitudinal change: Shabi (Agbro 2013).

Generally, climate change brings to bear negative effects on humans, animals and plants. In agreement with the negative effects of climatic change, Madu (2010) said that “climate change induced disasters such as drought, floods, severe weather and sea level rise and mild fire are likely to increase in intensity and frequency with the consequent increases in vector borne diseases, infrastructure damage, the degradation of natural resources upon which livelihoods are based, food insecurity as loss of life and property.” In the same vein, Diara (2011:4) maintains that, “negative impacts of climate change as part of environment problems had adverse negative impact on both living and non-living things in the world”. These environmental problems, if not controlled can suddenly destroy the entire world, including Nigeria”.

The specific activities of man that induce climatic change includes pollution, deforestation, green house emissions, flood, erosion, biological diversity, Ozone layer depletion, bush burning, overgrazing, mining, gas flaring, among others.

Pollution general poses health risks to humans, terrestrial and aquatic lives. Land pollution through indiscriminate disposal of solid wastes provides breeding grounds for infections diseases vectors, while air pollution results in acid rains which destroy buildings and infrastructures. Oil spillage is a threat to the livelihood of oil producing communities. Air pollution contributes to global warming by depleting the ozone layer. Destruction of human lives, property and means of livelihood as well as public infrastructures, leading to economic losses. Also, the destruction of plants and animals leads to destabilization of the ecosystem which comes with adverse consequences. Threats to human lives, means of livelihoods and infrastructure as well as loss of land areas and reduction in biodiversity are also considered as an effect of environmental problems, (Ibenwa et al, 2013).

Studies have shown that natural and human factors are responsible for the changes in the climatic region with human activities contributing more. Gbenda (2010) identifies changes in climate in the areas of temperature, evaporation, rainfall, humidity, wind speed and direction, solar radiation (p.5). Other scholars like Ajaero et al(2010), Akpodiogaga and Odjugo (2010), Ituma (2010), observe that though climate change

occur naturally, the major factors which induce change in climate are anthropogenic factors. While variations in solar radiation, variations in the earth's orbit and continental drift are natural factors, urbanization, industrialization, gas flaring, water pollution, indiscriminate dumping of refuse and deforestation which induce the amount of carbon absorbed in the atmosphere are man-made factors. These have combined to cause serious ecological problems such 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 animal (Ibenwa et al, 2013).

Religious and Moral Principles as Aid to reducing the consequences of climate change

1. The world's climate is best understood in the context of science and religion and can be healed and preserved on this basis (Collins 2011; Kearns 2011). God created the heavens and earth and gave them their character and dynamics which mankind has been exploring over the ages. The scientific understanding of the dynamics of the environmental system and sub-systems forms the basis of human use of his environmental resources for this livelihood. The single most outstanding result of the scientific study, documentation and understandings of the earth's climate is the ability of human beings to predict the tendencies of the atmosphere with a high degree of certainty. The predictive capacity of atmospheric scientists has been used to predict floods, droughts and other related phenomena. It is the predictive capacity that has enabled human beings to detect the current climate change; to model it and predict the future scenario and suggest the measures and attitudes that human beings must put in place to ameliorate the harsh consequences of climate change.
2. Religion and morality project survivalist ideologies as rewards for handling the creations of God with care by exhibiting the proper and caring attitude. The gifts in nature are from God for the good of man. It is for this reason that human beings are yoked perpetually to the task of caring for the natural environment and its contents. (Genesis 1: 28, 31:2-15. When the state of the human environment becomes bad, it affects mankind in numbers. The reaction then is for attitudes to change per force and choice, in order for human beings to survive. Ideas and actions are therefore, contributed towards the survival of the group. These ideas and actions ultimately result in the restoration of the ecological system which had been disturbed or damaged by untenable human actions. It is in this context that science has spelt out what measures human beings must adapt in response to climate change. Religion and morality point out that it is duty of human being to care for and not destroy what God has kept. In our caring for the free gifts of nature, human beings are obeying God's commandment. It is in this wise that science and religion converge as measures of restoring the earth. The ultimate reward goes to human beings who will continue to live and enjoy life on earth. (Ps. 96:11-12). Lending credence to this, Onah & Chimma (2013) asserted that this implies that human being should be the care take of the earth to protect and preserve it but not to abuse it. In the same frame of mind Bennet in Onah and Chimmah (2013) posits: that: " from the very beginning God expected man to use the products of nature for his sustenance but also to be responsible in the use and to preserve the life-giving systems and creatures of the creation". Pp 7-8.
3. The Holy Bible states that when man stops his destructive activities, God will restore the balance in the global ecological system and re-stock the earth (Palm. 65 verses 9-

13, 95 verse 5; 104 verses 24-31). Ecological damage has been traced to the careless activities of human beings who have one single index for measuring success. The standard of measuring success is the standard of living which is class materialism. Various religions hold the view that the pursuit of material success is the corollary for the departure from the ideal and religious. Christ had said that man can not serve God and mammon. Jesus Christ had also advocated a balanced life by "Giving unto Caesar what is his and unto God what is his (Matthew 22:21). The problem of protecting and preserving the earth lies within the larger scope of social, economic and political development. Each of these aspects of development impinges directly on the state of the earth's environment. The competition for leadership and control of the global economy by the industrial powers makes the healing of the earth's environment by human initiative uncertain. The drive for material success makes man incapable of redeeming his environment. The recourse then is to bring about a change of values specifically through religion which has its own peculiar power of conviction and fussion. Through the instrumentality of religion, a fresh body of attitudes can be established by way of obedience to the injunctions of God. Mankind being in harmony with God will enable the restoration of the global environment.

4. Religion preaches obedience to warnings of God. Thus, it provides the basis for the ignorant to obey the directions of knowledgeable ones as in the case of warnings to impending catastrophes (Roman 13 verse 1) or not to dare God (Proverbs 22 verse 3) or value their material possessions above their lives (Luke 12vers 15;Ps.115 verse 117).
5. Most religions preach global brotherhood which Vogt (2013) said helps to breakdown barriers created by worldly materialism and secularity and so provides the platform for a strong and general reaction to a common threat as climate change has proved to be (IPCC 2001, 2007).
6. Religions talk of the after life in which there are rewards for good deeds on earth in the after life. Adherents are encouraged to struggle for a better life outside this physical realm by controlling their tendencies for material acquisitions which have been shown to be the reason for continuous destructive carbon emission by the industrialized nations (Mathew 6 verse 19. Ecclesiastes 7 verse 12; John 17 verse 3; Matthew 5 verse 3).

On the basis of these exhortations, the inhabitants of the earth can truly reconsider, no matter the temporary costs and pains, the recourse to cleaner sources of energy resources such as solar energy and gas, being used in industrial production processes: healthier means of transport such as bicycles for inter-city movements and hybrid cars for inter-city transport; better waste management methods; reduction in deforestation etc. The mind must first be conditioned before the body will carry out the thoughts of man towards saving the earth (Larson 2001, 2005).

Suggestions

This paper suggests that bare advocacy for attitude change as strategy for meeting and overcoming the challenges of climate change on the basis of scientific facts alone will not achieve the desired level of success because the language and message may be difficult to understand and be translated to the desired attitudes and actions. This difficulty can be overcome by the use of the medium of religion and morality which certainly has greater appeal to people. Thus, it is advocated that because climate change can be traced to the wrong application of injunctions of God to human beings on how best to use their

environment, it is best to use the personage of and the injunctions of the God to bring human beings who are mainly responsible for climate change to reverse the harm they have done and are still doing to the world's environment especially the world's climate.

Conclusion

This paper concludes that climate change though blamed upon the harmful activities of human on the earth's environment can also be understood in the context of natural cycles and the divine control of the earth. This being so, it was advocated that the key to containing and reversing the consequences of climate change must be built on re-directing the attitude of the global population towards the global environment through Christian principles and morals. Some principles which are applicable were stated along with the expected results of their application. This paper concludes on the note that the suasion nature and power of religion over the minds of adherents recommends that religious and moral principles should become the vehicle for climate change advocacy and so the religious institutions and other social institutions should be the channels for carrying out climate change programmes.

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