

Challenges of Climate Change and the Culpability of Churches

Towards an Effective Church Climate Change Action in Nigeria

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Abstract

This study discussed the culpability and liturgical indifference of the church towards the challenge of climate change in Nigeria. This was done with a view to create a niche for the church in the process of climate change mitigation and adaptation in the country. Using a phenomenological method, the study revealed the following: Firstly, many rural agro-based communities along the Coastal, Savanna and Sahel ecological zones of the country are already suffering the severity of climate change impacts. Secondly, the church in Nigeria has shown little or no commitment towards the mitigation and adaptation to climate change in the country. The study therefore, challenged the church to rise to the ecological need of the time by practically intervening in the process of mitigation and adaptation to the impacts of climate change in Nigeria. This, albeit not the core mission of the church, should be an integral part of her overall mission in the country. The study suggested, among other things, two-fold intervention praxes for the church. These included Awareness Creation (AC) and Care for Climate Change Victims (CCCVs).

Key words: The church; climate change; culpability; liturgical indifference; mitigation; adaptation; awareness creation

1. Introduction

The global climate has substantially changed. According to the United Nations Framework Convention on Climate Change (UNFCCC), the change in global climate is unequivocal (Akpodioyaga and Odjugo 2008). Aside some natural causative factors, this global climate change has been largely attributed to anthropo-

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genic (human) factors. Over the years of industrial revolution, man has contributed immensely to the dramatic distortion and depletion of the atmospheric variables through the emission of an army of greenhouse gasses into the atmosphere. Consequently, there has been obvious rise in sea levels following the indiscriminate melting of the polar ice cap; evidences of extreme weather conditions across the globe; the loss of biodiversity, and so on. Interestingly, while the impact of climate change affects all and sundry as climate change assumes a global phenomenon, the brunt of these impacts is unarguably felt by developing countries in Asia and Africa including Nigeria. Also, it is a fact that the highly industrialized countries such as US, China, Russia, etc are the greatest contributors to climate change, yet the operation of the Nigerian oil and gas sector makes the country a major emitter of greenhouse gases in Africa (Lagos State Government Traffic Radio, 2016).

Indeed, the impacts of climate change have been overwhelming and have undermined the basis of many people's livelihood in Nigeria. For instance, while narrating the gory tales of the 2012 flood which has been adjudged the worst in the past 40 years in Nigeria (Ajaero, Okoro and Ajaero, 2016), Akpoborie (2012:2) wrote:

From Cross River, Akwa Ibom, Rivers, Bayelsa, Delta, Anambra, Imo through Edo to Niger, Benue, Taraba, Jigawa, Plateau and Kogi States, come accounts of woe, death and destruction of homes, public buildings, roads, bridges, public utilities, crops, livestock and farms. Hundreds of thousands of hectares of farms have been swept away (about 400,000 hectares in Jigawa State alone) while millions of people who have lost everything to the floods are being accommodated in temporary camps scattered all over the country. An untold number are harbouring with relations. Stories of suicide by farmers who took loans from banks and lost everything to the floods abound.

According to scientists, these impacts and more are just tips of the ice-berg, when compared to the magnitude of disaster climate change will bring, if it continues unabated (IPCC, 2007). In fact, it has been observed that "Nigeria is highly vulnerable to the effects of climate change, with significant impacts expected in all regions of the country and in all sectors of the economy (BNRCC 2011). Accordingly, the UNFCCC in Nairobi has warned that one day, the city of Lagos with about 7 – 14 million inhabitants might sink completely into the sea (NEST 2004).

Although the Lagos state government is currently erecting a wall commonly known as the Eko Atlantic City, with 6.5 kilometers sea barrier to ward off the impending sea level rise (Ayodele, 2016) more effective mitigating and adaptation efforts are still required especially in other coastal areas of the country.

Unfortunately, aside the efforts of the government (through the enactment of policies such as the National Park Service Act of 2004; the Endangered Species Act

of 2004; the National Drought Preparedness Plan of 2005; the National Biodiversity Strategy and Action Plan of 2005; the National Erosion and Flood Control Policy of 2005; the National Forest Policy of 2006; the NESREA Act of 2007 and the creation of a Special Climate Change Unit (SCCU) within the Federal Ministry of Environment [Oladipo, 2010]) which have left much to be desired, some major institutions of which the church is one have performed below expectations with respect to the mitigation and adaptation to climate change in the country. One is aware that the Roman Catholic church through its educational institutions has organized some conferences (see: Proceedings of the Conference of the 22nd CIWA Theology Week held on 21st -25th March 2011 in Port Harcourt, Nigeria) and also published academic journals addressing the issue of climate change (see: *African Journal of Contextual Theology*, vol.2) in the country. This shows that awareness is beginning to take place especially within the Catholic Church. In more practical terms, however, churches in Nigeria seem to have shown less interest and commitment (as would be seen from the liturgical focus and content of some churches over time) to the fight against climate change and its adverse impacts in the country. In fact, it has been observed that some Christians see the reality of climate change alongside its devastating effects as a sign of end time or from eschatological perspective of the immanence of "Christ's return". (www.huffingtonpost.com; Diara 2011). This explains why the churches' inaction could be found culpable for not engaging some ecologically friendly activities in the country.

This study, therefore, aims to highlight the culpability and indifference of churches towards the challenges of climate change; and to create an effective role for the churches in the process of mitigation and adaptation to climate change impacts in Nigeria. This is based on a largely held position that a practical involvement of religion, in this context, the church in tackling the global challenges of climate change mitigation and adaptation will yield desired results. (Coward 1993; Tucker and Grim 2001; Millais 2006; Stults 2006; Posas 2007). A phenomenological method is employed to achieve the objectives of the study. It is important to note that climate change mitigation and adaptation is not the primary mission of churches but that of the Nigerian government. Yet, it is not solely the duty of the government, as climate change affects everyone, especially rural dwellers in the country. Churches therefore have a role to play. It is also important to note that the terms "the church" as a body and "churches" as a group of different Christian denominations will be used interchangeably in this study depending on the context.

2. The Impact of Climate Change in Nigeria

The impact of climate change in Nigeria has been devastating and futuristically threatening. From the coastal/rainforest eco-zone in the south, through the Savanna

in the Central zone, to the Sahel eco-zone in the North, the climate change impacts have been eclectically calamitous. These impacts come in different forms and severity and have affected virtually all aspects of the country's life – agriculture, health and sanitation, livelihood, energy, infrastructure, human settlements and housing etc (Ebele and Emodi, 2016). These have economic implications in the country. For instance, it has been projected that, if no effective mitigation and adaptation is implemented, climate change could result in a loss of between 2% and 11% of Nigeria's GDP by 2020, rising to between 6% and 30% by the year 2050. This loss is equivalent to between N15 trillion (US\$ 100 billion) and N69 trillion (US \$ 460 billion) (DFID/ERM 2009). Nevertheless, the impact of climate change in Nigeria, shall be discussed as follows:

2.1 Impact on Agriculture and Food Security

Agriculture is one of the human activities that are greatly affected by the impacts of climate change as agriculture is generally climate-driven (Yohannes, 2016). In this sense, Nigeria is one of the countries that are mostly affected by climate change, largely because about 70% of Nigerians are engaged in small holder rain-fed agriculture and about 42% of the country's GDP comes from agriculture and related activities (NEST 2011).

For instance, the persistent decline in rainfall in the north-eastern region of Nigeria since the late 1960s, has significantly reduced agricultural productivity in the region (Ajaero et al 2009; NEST and Woodley 2012; Ebele and Emodi, 2016). In Tosha, a community in Yobe State, for example, the cyclical droughts that have occurred historically in the area, the chronic water scarcity due to the arid environment of the Sahel, the increasing desertification and the low soil fertility have all affected farming and livestock rearing in the community. Also, the frequent storms, flooding, droughts and a generally declining rainfall pattern in Gorori, Jigawa state have made agricultural activities difficult especially the production of millet, benniseed and livestock for which the community is known. These experiences are similar to those found in other communities like Daudu in Benue State, Falgore in Kano State, Sansan in Borno State, Dashe and Kwaikong in Plateau State, Bursali and Billeri in Bauchi State (NEST and Woodley 2012) where the impact of climate change on agriculture is gravely felt. Furthermore, Onwuka, Ikekpeazu and Onuoha (2015) have also reported that floods constitute a major environmental problem in Anambra state as more than 30% of the population reside in riverine areas. These impacts further aggravate the stress already associated with subsistence production, such as isolated location, small farm size, informal land tenure, low levels of technology and narrow employment options in the region (Oladipo 2010).

On the other hand, the rise in sea level (which often occurs at the peak of rainy season in Niger-Delta region between July and September), the flooding and the beach erosion, have greatly affected farming and fishing in the Niger Delta region of Nigeria. In fact, it has been estimated that 26-45 meters of land area is lost to erosion per year. This is 15% of the total area of the Niger Delta. Furthermore, it has been reported that the late onset of rain and high temperatures due to variation in climate bring about a reduction in sprouting/germination of crops, wilting and death of crops particularly banana, plantain and yam tubers in the region (NEST 2011). Also, outbreaks of livestock diseases and crop pests are said to be common during periods of temperature extremes. In Amalam, Rivers State, for instance, it was particularly reported that there have been an appearance of new species of plants which are fast replacing native species. This is in addition to the appearance of new species of birds that attack and defecate on young coconut leaves which causes the leaves to wither and die (NEST 2011). The overall effects of these are low crop yield, low farm income and food insecurity in Nigeria.

2.2 Impact on Health and Sanitation

Climate change has severe impact on human health in several ways. These impacts can be direct or indirect. It is direct when climatic or weather variations directly affect human health such as when health issues arise as a result of heat waves or hotter temperatures, windstorms and other extreme weather events. Indirect impact of climate change occurs when a climate change induced event such as poor food or crop production gives rise to malnutrition and death. These notwithstanding, the impact of climate change has generally affected human health, especially in Nigeria through the increased outbreaks of water borne diseases (cholera, typhoid, hepatitis A, shigellosis, cryptosporidium) as a result of chronic deluges as usually the case in the coastal rainforest zone of the country. These have also increased breeding sites for mosquitoes and led to the contamination of aquifers of both freshwater and coastal waters. Increased temperature has also led to heat stress; malnutrition from crop failure which are usually felt in the Sahel zone in the Northern part of Nigeria (BNRCC 2011).

3. Culpability of the Churches in Nigeria

Nigeria has a significant population of Christians who belong to different denominations. According to Pew Research Center, Nigeria has the largest Christian population more than any country in Africa, with more than 85 million persons belonging to the church with various denominations such as Roman Catholic Church, Presbyterian Church, Anglican Church, and Pentecostal Churches (Pew Research Center, 2011). These churches have through different platforms such as Christian Association of Ni-

geria (CAN), Christian Pentecostal Fellowship of Nigeria (CPFN), Adventist Women's Ministries, Catholic Women Organization, Christian Social Movement of Nigeria, Justice Development & Peace Commission, etc, expressed views and yielded influences on issues such as leadership and governance, youth empowerment, gender equality and women empowerment in Nigeria. Hence, following the seriousness of the phenomenon of climate change, one would expect a more pragmatic and radical effort from churches towards its mitigation and adaptation in the country. However, through the actions and inactions of the church, the phenomenon of climate change is increasingly being accelerated while the significant mitigation and adaptation strategies have been lying fallow. It is a fact that some efforts targeted at creation of climate change awareness have been made by some churches especially by the Roman Catholic Church through conferences (see: Proceedings of the Conference of the 22nd CIWA Theology Week held on 21st -25th March 2011 in Port Harcourt, Nigeria) and Journal publications (see: *African Journal of Contextual Theology*, vol.2), but more effective and practical efforts need to be made in the country.

For instance, following the sensitiveness of the problem of climate change, churches should have practically given ecological issues adequate attention during routine worship, sermons and prayers by now. But this seems not to be the case as what is called "ecological spirituality" (Bianchi, 1998; Pope Francis, 2015) is still generally absent from worship in many churches in Nigeria. A critical appraisal of the sermons, worship and Eucharistic prayers in churches in the country, would prove this fact. One could go through a whole year of liturgical cycle and hardly know that the earth exists much less that it is sacred. Even when nature is mentioned in hymns and prayers, it is rarely commended for its own intrinsic values; it is used rather as testimony to the glory of God or as an example to underscore human virtues. The worshippers' orientation seems to be practically pulled away from nature.

This seems to be a problem because besides doctrinal issues, Christians are more immediately formed by involvements in liturgy and worship. Therefore, when ecological issues are usually left out of Christian routine sermons, worship and prayers, Christians would hardly appreciate the seriousness of the problem of climate change and its consequences. Similarly, the Pentecostals in their numerous open air crusades and revivals fail to educate the vast masses of the people on the issue of climate change. This probably explains why a great number of Christians have a poor knowledge of the issue of climate change and also explains why there is little or inadequate commitment from Christians to its mitigation and adaptation in the country. Instead, many Christians lead a luxurious and environmentally unfriendly lifestyle and consuming patterns. For instance, it is not uncommon to hear of Christians, especially church leaders who never skip their annual air travels

within and outside the country. More interestingly, most of these church leaders currently seem to be involved in a competition for who will acquire the highest number of private jets in the country. (See www.forbes.com for the list of private jets owners in Nigeria)

In fact, a close observation of the general trend of Christian living and focus in Nigeria would show a discernible indifference towards climate change mitigation and adaptation in the country. In Nigeria, each year that ends, opens a new year with fresh plans for state sponsored Christian pilgrimages to Jerusalem which particularly involve thousands of Christians in the country (Even though Muslims are usually more frequently disposed to pilgrimages due to the important place it occupies in their belief system). For instance, in 2009, the number of Christian Pilgrims from Nigeria to Israel was estimated to be 20, 000 (Sydelle 2009) whereas, in 2012, a one third of the country's 90,000 religious pilgrims were Christians (Oguntola 2012). Yet, in 2013, no fewer than 30,000 Christians left Nigeria for Israel and Rome on pilgrimage (Ike-Okoh, Agonuo and Ailemen 2013), while 13,800 persons participated in that of 2015 (Komolafe, 2015). The implication of all these is that since transportation contributes to climate change through the emission of carbon dioxide, it means that the more people embark on these journeys (including travels on roads within the country), the more the climate changes (Stantchev and May, 2009; Ugwu, 2013).

Furthermore, the church has been contributing to the deterioration of the natural environment in Nigeria through some of its business investments in the country. For instance, the Dominion Publishing House owned by Bishop David Oyedepo; the Ultra-Modern Printing Company in Lagos owned by Chris Oyakilome; the Aqua Rapha water company owned by Rev.Fr.E. Mbaka; and other similar church-owned establishments that run on fossil fuels affect the natural environment in some way. Also, the seemingly unguarded proliferation of churches which is characteristic of Christianity in Nigeria is worth attention. While there are so many church buildings across the country, which are built at the expense of lands for agricultural activities, some of these buildings are built in unsustainable ways such as building on water canals and drainages. The headquarters of the Lord's Chosen Charismatic Revival Movement that was sealed by the Lagos state Ministry of Environment over some environmental issues such as improper disposal of waste as well as the blockage of the Odo Asimawu drainage channel is a case in point (Ameh, 2013).

4. Church Climate Change Action in Nigeria: The Praxis

The evidences of extreme weather conditions and wind storms especially in the Sahel and the unusual sea level rise and devastating floods especially in the coastal region and the Savannah Central Region have made the reality of climate change induced

Table showing the summary of Bulletin information for the order of Sunday services in Christ Church Chapel in 2014, with no single provision for the discourse of ecological needs and issues

Date	Theme	Topic	Text	Aim
9 Feb 2014	Biblical Basis of stewardship	Faithfulness in service	Luke 12: 41-48	To encourage faithfulness in our various places of service
24 Feb 2014	Principles of stewardship and resources of life	Responsibility of a steward	Gen. 24: 1-18	To encourage Christian stewards to know and carry out their responsibility.
02 Mar 2014	Principles of stewardship and resources of life	Stewardship and management of Time (1)	Ecll. 3: 1-8	To encourage Christians to know how to use their God giving time well.
09 Mar 2014	Principles of stewardship and resources of life	Stewardship of Time (II)	Proverbs 6:4-11	To encourage Christians to know how to use their God given time well
23 Mar 2014	Principles of stewardship and resources of life	Stewardship and ministry of mercy	Luke 10: 30-37	To help believers to know how to show mercy to those in need of it.
30 Mar 2014	Principles of stewardship and resources of life	Stewardship through prayer	1 Sam. 7:1-13	To encourage believers backup their stewardship with prayers
06 Apr 2014	Principles of stewardship and resources of life	Stewardship through prayer (II)	Acts 12:1-17	To encourage believers to back up their stewardship with prayers
13 Apr 2014	Principles of stewardship and resources of life	Benefit of stewardship (1)	Matt 25:14-30	To encourage believers to know that God rewards His stewards
20 Apr 2014	Principles of stewardship and resource of life	Benefit of stewardship (II)	Esther 6: 1-14	To encourage believers to know that God rewards His stewards
27 Apr 2014	Stewardship and Religious Acts	Christian stewardship and philanthropic Acts	Luke 7:1-10	To know the difference between Christian stewards and philanthropists
11 May 2014	Principles of stewardship and resources	Tithing and Donation	Malachi 3:6-12	To encourage Christian to support God's by giving
25 May 2014	Principles of stewardship and resources of life	Prospering land (The Rich food (II)	Luke 12:13-21	To encourage believers to trust God to prosper in the land of the living
01 Jun 2014	Stewardship and family life	The role of Husbands to their wives	Eph. 5:25-31; Gen. 29: 15-30	To help husbands come to the true awareness of their God-given position and role and be practically involved to fulfill these roles
08 Jun 2014	Stewardship and family life	The Role of Husbands to their wives	Gen. 29: 15-30	To help husbands come to the true awareness of their God-give position and role and be practically involved to fulfill these roles
29 Jun 2014	Stewardship and family life	The Role of Wives to their Husband	Eph. 5: 21-24	To help wives identify their position and role and perform it.

Date	Theme	Topic	Text	Aim
06 Jul 2014	Stewardship and family life	The role of wives to their husband	Eph. 5: 21-24	To help wives identify their position and role and perform it.
20 Jul 2014	Principles of stewardship and resources of life	The Role of parents in the family	Gen. 18-17-19 Eph 5: 4-9	To help parents (fathers and mothers) understand and properly assume their responsibilities at home
27 Jul 2014	Principles of stewardship and resources of life	The role of parents in the family	Gen. 18:17-19, Eph. 5:5,9	To help parents (fathers and mothers) understand and properly assume their responsibilities at home
03 Aug 2014	Principles of stewardship and resources of life	The role of parents in the family	Gen. 18:17-19, Eph. 5:4,9	To help parents (fathers and mothers) To help parents (fathers and mothers) understand and properly assume their responsibilities at home
24 Aug 2014	Principles of stewardship and resources of life	The role of children to their parents	Psalm 127:3-5 Eph. 6:1-3	To help any person born of a woman discover his/her uniqueness and live up to his/her responsibility.
31 Aug 2014	Principles of stewardship and resources of life	The role of servant to their master	Eph. 6:5-8	That at the end of the lesson servants should both recognize and appreciate their position, knowing what to do, how to do and when to do
07 Sep 2014	Principles of stewardship and resources of life	The role of adult to their parents	Prov. 23:24-25	To bring adults to the understanding that they are children as long as they have parents, and should live up to their responsibility towards their parents
14 Sep 2014	Principles of stewardship and resources of life	The role of adult to their parents	Prov. 23:24-25	To bring adults to the understanding that they are children as long as they have parents, and should live up to their responsibility towards their parents
21 Sep 2014	Principles of stewardship and resources of life	The role of couples to their in-laws	Ruth 1:3-18, 22	At the end of the lesson, couples should come to terms with actual natural demands of having in-laws
12 Oct 2014	Principles of stewardship and resources of life	The role of couples to their in-laws	Ruth 1:3-18, 22	At the end of the lesson, couples should come to terms with actual natural demands of having in-laws
19 Oct 2014	Principles of stewardship and resources of life	Lawful giving Tithe and offering	Matthew 3: 8-12	At the end of the lesson, couples should come to terms with actual natural demands of having in-laws
26 Oct 2014	Principles of stewardship and resources of life	Giving love	1 Chronicles 29: 1-9	To encourage believers to give out of love unto the Lord
02 Nov 2014	Principles of stewardship and resources of life	The reasons for giving	Acts 10:1-8	To know that the reasons for giving is because God is the source of our life
09 Nov 2014	Principles of stewardship and resources of life	Liberal Giving -The Poor	2 cor. 8:1-7, John 12: 1-16	To help us know that we owe our stewardship to God first before mankind.
16 Nov 2014	Principles of stewardship and resources of life	Stewardship to the lost	Math 9:35-38	To know that God has given us mission to the lost
23 Nov 2014	Principles of stewardship and resources of life	Paul: The faithful Evangelist	Acts 25: 4-19	To encourage believers to be faithful in their stewardship to God and mankind

events in Nigeria heavily felt. This is not to talk of the severe impacts on crop yields, health, housing and settlements, livelihoods and so on, which have all resulted in the rise in poverty level, food and water scarcity, malnutrition, mass displacement, disease and deaths in the country. Unfortunately, the brunt of these effects are being felt in rural communities such as Daudu in Benue State, Falgore in Kano State; Bebi, Wula Ekumpuo, Iko Esai and Agoi Ibami in Cross River State; Sansan in Borno State; Toshi in Yobe State, Gorori in Jigawa State; Bursali and Billen in Bauchi, Dashe and Kwaikong in Plateau and so many others (NEST and Woodley 2012).

Following the above scenario, therefore, churches are hereby called upon to intervene in the challenge of climate change mitigation and adaptation in the country. The involvement of the churches should be based on the unavoidable need to, in addition to its spiritual focus and mission, be socially and contemporarily relevant at least in respect to the welfare of the poor and vulnerable climate change victims. In a broader sense, however, this advocated involvement of the church should be based on the following reasons as advanced by De Gruchy in Alokwu (2013:110):

- i. God created this world and it belongs to God
- ii. If we care for life, we must care for the environment
- iii. Our humanity depends upon the environment
- iv. Creation is bound up with salvation
- v. The earth crisis is a crisis of culture to which the gospel speaks

Knanakan (1999) also adduced reasons for the Church's involvement to include: (i) Because we are Christians who believe in the creator God; (ii) The Christian doctrine of creation has been attacked for being the root cause of the environmental devastation; and (iii) There is the biblical mandate for us to be stewards of God's creation. God created the world, according to the Christian tradition and put it under man's dominion – a dominion which bestows on man the responsibility of care and stewardship. The earth is God's property and should be accorded due respect as it was not beautifully made to be destroyed, but to be enjoyed and sustained by man, through a conscious stewardship over it. Yet, this stewardship can never be arbitrary or anthropocentric. It rather implies that man rules creation in God's stead and must do so according to his divine will (Asoanya, 2004; Asoanya and Ufele, 2007). Song (1998: 454) has remarked that the divine declaration that creation is "very good" (Gen. 1:31) establishes the natural world as the proper context for human fulfilment. Mankind's vocation is to be found in respect for nature and the stewardship of its order".

However, instead of this deference, gross disrespect, disregard and utter disdain characterize man's attitude towards nature. Hence, the earth is currently in shambles and its beauty eroding away. Accordingly, the Second Synod for Africa as cited in Ukwuije (2010) states that:

We observe that many human beings, at all levels, have continued to abuse nature and destroy God's beautiful world by exploitation of natural resources beyond what is sustainable and useful. There is an irresponsible degradation and senseless destruction of the earth, which is 'our mother'. In complicity with those who exercise political and economic leadership . . . , some businesses, governments and multinational and transnational companies engage in business that pollute the environment, destroy flora and fauna, thus causing unprecedented erosion and desertification of large areas of arable land. All these threaten the survival of mankind and the entire eco-system.

Little wonder, Pope Benedict XVI lamented thus:

Can we remain indifferent before the problems associated with such realities as climate change, desertification, the deterioration and loss of productivity in vast

*** Additional notes table above:**

- i. The Bulletin information was obtained from Christ Church Chapel which is an Inter-denominational church in the University of Nigeria, Nsukka that houses the Presbyterian, the Methodist, the Anglican and the Qua Iboe congregations. And these congregations do not use separate Bulletins but one uniform bulletin for the entire congregation every Sunday.
- ii. There were some Sundays in 2014, for which Bulletins were not produced. For instance, some Sundays in the months of January, December and few other months with incomplete Bulletin information as found in the table. This was due to some special programs or celebrations such as harvest, home coming, women's day celebration, etc that were held on these Sundays and for which booklets were produced instead.
- iii. The repetition of themes, topics and aims as found in the table above, is done on purpose. Yet, in spite of some of the repetitions, discussions were not repeated but were usually continuations from the previous Sundays.
- iv. Looking at what seems to be the overall theme of the year (2014) which is "Principles of Stewardship and Resources of life" as found in the table above, one would expect that discussions should revolve around the natural environment and how humans could be stewards of its order. However, this was never the case as the topics of discussions for the entire year was aimed at instilling a sense of responsibility to parents, in-laws, guardians, children and service, into members.

agricultural areas, the pollution of rivers and aquifers, the loss of biodiversity, the increase of natural catastrophes and the deforestation of equatorial and tropical regions? Can we disregard the growing phenomenon of environmental refugees, people who are forced by the degradation of their natural habitat to forsake it and often their possessions as well – in order to face the dangers and uncertainties of forced displacement? Can we remain impassive in the face of actual and potential conflicts involving access to natural resources? (www.vatican.va)

The churches, therefore, should practically rise and actively join the global march to save the earth and mankind; not necessarily from eternal destruction, but from generational ecological disaster. They should, in understanding of the peculiarities and vulnerability of the country; practically assist in confronting the challenge of climate change mitigation and adaptation in Nigeria, especially as it affects several poor rural communities in the country. This can be achieved through the following models:

4.1 Awareness Creation (AC)

The importance of awareness creation with regard to climate change can never be over-emphasized, especially in a country like Nigeria, where ecological or climate change knowledge is relatively low. Pope Francis has noted that “we lack an awareness of our common origin, of our mutual belonging, and of a future to be shared with everyone. This basic awareness would enable the development of new convictions, attitudes and forms of life” (Pope Francis, 2015:112). Therefore, the first port of call for the intervention of the church in Nigeria is awareness creation. However, the act of creating awareness could be done in two different forms for two different categories of people. These forms are: Intimate Awareness Creation (IAC) and Non-Intimate Awareness Creation (NIAC).

4.1.1 Intimate Awareness Creation (IAC)

The Intimate Awareness Creation is a strand of awareness meant for the members of the church or Christians generally. This is simply an awareness created on the basis of friendship and familiarity. The reality of climate change should be made known. Church leaders and theologians should take as a duty, the task of enlightening their members on the dangers of climate change. This is where intimacy comes in as the information shall be from the leader to the led. This should be done on regular basis during church services, meetings, fellowship and so on.

Two basic Christian elements stand out to be the best media for the creation of this awareness. They are Christian theology and Christian worship or liturgy. Through a theology that reflects the sanctity of the earth, which could be called eco-theology, Christians are expected to be positively affected in respect to their attitude

towards nature. Hence, the Catholic Institute of West Africa (CIWA) (2011:335) wrote:

We affirm that eco-theology has a fundamental role to play in resolving ecological crisis, we hereby call on theologians to reflect on the origin, purpose and destiny of the cosmos from the point of view of faith; faith in God the father who creates, faith in the son who redeems and faith in the Holy Spirit who sustains, faith in the beauty and integrity of the ecosystem, a faith that seeks to restore order in the disorder of everyday life, a faith that is committed to earth's ministry in anticipation of the life of the world to come.

This eco-theology should inform doctrinal reflections in the church that should be aimed at building ecologically friendly congregations in Nigeria.

Christian Liturgy or worship is another medium of carrying out the Intimate Awareness Creation in the church. A liturgy driven by ecological concern is called ecological liturgy. Ecological liturgy thus "promotes the dignity of creation by making use of products of creation in worship" (Chibuko 2011:214). Churches, should therefore, as a matter of urgency integrate ecological needs in their liturgy and homilies for better understanding and appreciation of the environment. This is necessary because outside the importance of doctrinal issues, "Christians are more immediately formed by involvements in liturgy and worship" (Bianchi 1998:70). It is therefore, through these media, "eco-theology" and "ecological liturgy" that an effective intimate awareness creation among Christians can be achieved by the churches in Nigeria.

4.1.2 Non-Intimate Awareness Creation (NIAC)

This is the opposite of the Intimate Awareness Creation (IAC) as has been discussed above. Hence, unlike the IAC that is meant for Christians generally or members of the churches, the Non-Intimate Awareness Creation (NIAC) is meant for non-members of the church or the larger society. The position of the churches on the ecological challenges should be made known to the Nigerian society. The church should therefore, uphold the responsibility of enlightening Nigerians on the dangers of climate change and the need for its mitigation in the country. The emphasis of this awareness should be on the practical ways and actions that can be taken to reduce carbon dioxide emission. These practical ways according to the Nature Conservancy include:

- i. Walking or using bicycle instead of driving cars (cars and trucks run on fossil fuels, which release CO₂ into the atmosphere). Preferably, the use of bio-fuel could be encouraged.

- ii. Telephone or video conference for office meetings instead of traveling by Airplanes which produce 12 percent of transportation sector CO₂ emissions.
- iii. Use of energy-efficient or energy-saving fluorescent light bulbs
- iv. Recycling and use of recycled products (paper, glass, metal and plastic) at least to spare the trees in the forest which would have been cut down as raw materials for paper production
- v. Planting of native trees to help absorb carbon dioxide (This is currently being done by the government in some cities such as Lagos and Abuja but not in larger quantities).
- vi. Turning down the heat or air conditioners when out of use (i.e. when leaving the house or sleeping). However, strict adherence to this could be more problematic especially in tropical areas such as Nigeria.
- vii. Patronage of renewable energy sources with solar panels, windmills and other technologies.
- viii. Acting globally and eating locally in order to avoid unnecessary burning of fossil fuel just to get food from supermarkets, instead of shopping at a local farmer's market for healthy and fresh food and
- ix. Inflation of automobile tires always to burn less gas and emit less carbon to help save the climate (www.nature.org)

With these individually-centred efforts, and if properly taught and adhered to, the phenomenon of climate change would be significantly mitigated in the country. Furthermore, the non-intimate awareness creation can be facilitated through the following media:

- i. The use of electronic/non-electronic media like television, internet, radio, newspapers, etc which are the easiest means of reaching Nigerians.
- ii. Through special seminars, symposiums and workshops on the subject of climate change and Way out, and
- iii. The use of church based stickers, Tracts and Bills.

It should be noted that the above forms of awareness creation are not strictly different as there are cases in which both forms could interchangeably serve both categories of people.

4.2 Care for Climate Change Victims (CCCVs)

This is one of the important roles the church can play in order to achieve an effective climate change adaptation in the country in addition to their preachments on it. It would be inappropriate to preach eco-sustainability without remembering the climate change victims who suffer disproportionately from drought, flooding, famine and pollution in the country especially in rural communities. Most of these rural

communities are vulnerable to the effects of climate change due to some factors such as lack of access to education and climate change information; lack of access to land and other natural resources, finance and markets especially for women; poor infrastructure and condition of the natural environment and so on (NEST and Woodley 2012). Hence, in order to achieve a successful climate change adaptation and to build a strong adaptive capacity of communities in the country, these factors or problems should be addressed.

The churches therefore, should intervene in some of these areas. The intervention could come in two different forms which are: Empowerment of the Vulnerable Communities or groups and Charity for Climate Change Victims.

4.2.1 Empowerment of Vulnerable Communities/Groups

Illiteracy and lack of access to education and climate change information have been the major problems that hinder adaptation to the impacts of climate change amongst people especially the small scale farmers in agro-based rural communities in Nigeria. Due to extreme weather conditions like high intensity of rain fall and heat waves as well as the general unpredictability of the climate seasons many agro-based rural communities have suffered low crop yields which have resulted in food scarcity and malnutrition especially for women and children.

Churches, therefore, could assist in empowering some of these women and men with necessary information on climate change and key adaptive strategies. This could effectively be done by establishing community-based Organisations in partnership with local churches or the villagers in some of these rural communities. These advocated Christian community-based organisations would have the task of educating and enlightening villagers or rural dwellers on necessary and affordable adaptation strategies. Some of these strategies may include: use of improved crop varieties and tree planting for communities in Plateau State and Bauchi State that suffer frequent drought; sand bagging, early harvesting of crops, continuous weeding of crop lands and use of ointment on skin for communities in Cross River State that suffer flooding, heavy rains, invasive species and excessive heat respectively (NEST and Woodley 2012).

This enlightenment or education can be carried out through workshops, seminars and crusades. The church should also, through a partnership with the government, assist in making sure that rural community dwellers access government sponsored agriculture extension services such as the provision of fertilizers, new varieties of crops and other farming tools, as these would help build the adaptive capacity of these rural communities. Also as part of the empowerment, is the need for the church to invest or attract investment in water management and irrigation especially in poor rural communities along the Sahel region of the country. This

could be done through the provision of water facilities like boreholes as well as irrigation materials for agricultural activities.

4.2.2 Charity for Climate Change Victims

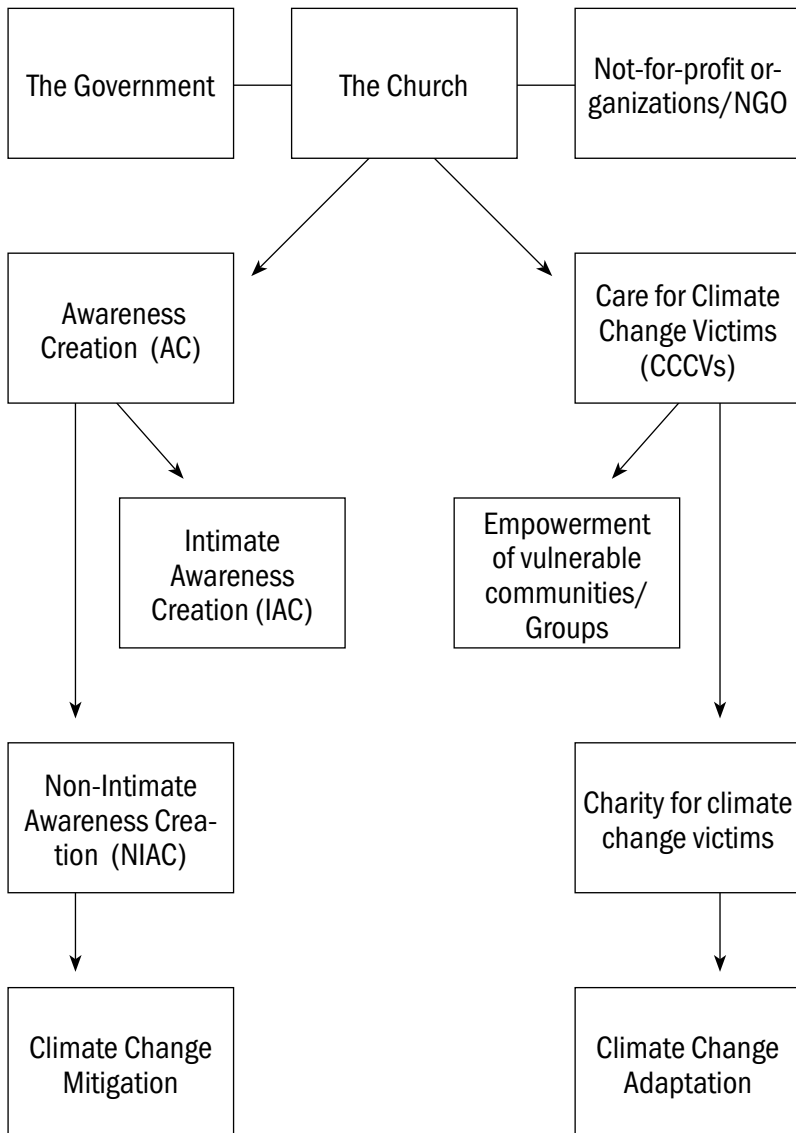
This is another way of assisting vulnerable communities to adapt to the impacts of climate change in the country. Some climate change induced disasters such as flood; drought and famine have resulted in mass displacements, loss of agricultural products, disease and death in the country. The tale of 2012 flood season can hardly be forgotten. The flood destroyed many property and immeasurable hectares of farmlands and also caused an unquantifiable trauma in victims. In fact, it was reported that up to 20 people committed suicide in relief camps in Kogi state following the unbearable loss of property to the cataclysmic deluge (Ajani 2012).

One then imagines the level of suffering and hardship that made some people to prefer suicide. The church therefore, should develop empathy for this set of people and extend their charitable work to them. One is aware that some churches such as the Good Tidings Bible Church in Abuja, the Catholic Diocese of Idah etc assisted these 2012 Kogi state flood victims with relief materials such as medications, clothes, food stuffs, and toiletries (*The Nation*, November 20, 2012). It was particularly reported by a witness that the Catholic Diocese of Idah operated a relief camp in Ibaji, Kogi state, during this period. However, while this is commendable, more consistent efforts are needed especially in rural areas where dwellers consistently face other challenges of climate change such as drought, famine etc. In the midst of dejection, hopelessness and despair, the church should give more hope. The church should head the course of rendering a helping hand, through a collective effort of Christians all over the country. Voluntary financial contributions can be encouraged during church services, crusades, meetings and fellowship for these victims. Beyond this, Church leaders should advocate the welfare of these victims to the necessary quarters like the governments, (both state and federal), Non-government Organisations and philanthropists for assistance. Also, they should set up either a body or an account that may be called "Charity for Climate Change Victims (CCCVs) through which these victims can be reached. It should be done in a way that people can voluntarily contribute money or other materials online. Without doubt, this will go a long way in putting smiles on the faces of these people as well as boost their adaptive or coping capacity in the country.

5. Conclusion

The phenomenon of climate change has indeed been impactful in Nigeria. This has increased the level of poverty and destitution as well as the vulnerability level in the country especially among the rural agro-based communities. This makes effec-

Figure: showing the Praxes for the church’s intervention in the mitigation and adaptation to climate change in Nigeria



tive climate change mitigation and adaptation an inevitable option in the country. Churches, therefore, should as a matter of urgency intervene in the entire process of mitigation and adaptation to climate change as in the country. This is because an active involvement of the churches in the mitigation and adaption to climate change in Nigeria, would yield the desired result in the country.

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