

# Tourism and Climate Change: Combating Climate Change Effects on Tourism Participation in Nigeria

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## Abstract

Tourism is married to good climate conditions, any attempt to divorce them could lead to danger. The issue of combating climate change should be more paramount than ever before. It is obvious that tourism cannot be at its best amidst adverse climatic change resulting in harsh climatic conditions, flood, irregular rainfall pattern, drought leading to poverty etc. Efforts of all stakeholders in the tourism sectors should be geared towards a safer cleaner environment in Nigeria. The study spelt out certain challenges relating to climate issues in Nigeria and give recommendations to all tourism related industry. It is also recommended that environmental friendly products should be produced and promoted. The tourism industry must adapt to climate change, improved technology and facilities that will help tackle the challenge of climate change should be highly canvassed or by all stakeholders.

**Keywords:** Tourism, Climate Change, Industry, Tourism Sector.

## Introduction

**1.0** Tourism is said to be one of the biggest and most dynamically growing sector of the world as it generates 11% of gross domestic product (GDP) and employs 200 million people. That tourism is a thriving industry world wide is no more anew because it is either the backbone or one of the top three fastest growing industries in countries like Kenya, Indonesia, the Gambians, France, the USA, Canada, the UK, Morocco, the Bahamas and Barbados (WTO, 2010).

Tijani (2007) pointed out that climate is a resource exploited by tourist. This resource at various times and locations are classified either as favourable or unfavourable. This is why climate should be treated as an economic asset for tourism development.

Engaging in tourism activities without taking climate conditions into consideration is not unthinkable issue, because a tourism activity has a strong relationship with the climatic or weather conditions. Tourism is a component of various activities that depend on Meteorology (...weather) and climatology (long term climate change). Unfavourable climate or change in weather can to a large extent affect the planner's decision (activities of the tourist), operations comforts, planning of tourist decisions and flow of tourist. (WWTC, 2000).

Adverse weather conditions has been known to cause flight delays, cancellations and re-routing which have a ways of affecting tourist movement. In recent times, it has been observed that the climate is changing adversely. Climate change has become an issue of great concern to nations globally. As far back as in 1992 in Rio de Janerio about 35,000 people attended the biggest conference ever held called "The Earth summit" representative from 178 countries were there to talk about the environment. The conference produced a report called "agenda 21" which presented 115 proposals about sustainable living from then to 21<sup>st</sup> century. It was proposed that to be able to tackle the challenge of climate change effectively by the year 2000, emissions of carbon-dioxide and other greenhouse gases must be reduced to the 1990 levels (Keith, 1993). Recently, another summit on climate change was convened at Copenhagen by the United Nations secretary General, Ban ki moon; nearly 100 world leaders were represented. In his closing remarks, Mr. Ban said "there is urgent need to check climate change globally because the little time left for the opportunity and responsibility to avoid catastrophic climate change is in our hands" (New Nig. Newspaper, 2008)

Climate information is vital for planning the daily activities of tourists who will always ant to make best use of their holiday. Since climatic factors play significant roles in influencing tourists' behaviour and the Nigerian government has recently chosen tourist development in her guest for economic diversification. Therefore, there is no doubt that the tourism industry may be affected greatly if current climate change continue without combating it globally. This paper is an attempt to discuss effects of climate change on tourism participation with a view to check climate change effects on tourism activities in Nigeria.

### **1.1 The Effect of Climate Change on Tourism In Nigeria**

Developing countries such as Nigeria are said to be more vulnerable to be effects of climate change with little capacity to adapted due to low level of awareness, human and financial resources, institution and technological capability, (Okoli and Ewah, 2004) . These are evident based on the fact that:

- Many species of plants and animals are rapidly becoming extinct
- Tree density and floristic richness are decreasing.
- New species of plants and animals are rarely showing up in the ecosystem
- The disruption and reduction of the fruiting intensity of some trees
- Aberration in animal mating
- Changes in bird and animal migratory pattern (due to the need for new food sources)
- Changes in fish spawning altering species of plants and animals.

According to the research conducted by (Ijeoma and Aiyeloja, 2009) on the impact of climate change in Jos, Plateau state, Nigeria, result revealed that climate change can destabilize ecosystems, reduce tourism patronage, cause shift in tourism destinations, death and migration of wild life species, flooding of eco-destinations can make tourism time table ineffective by adversely affecting time for sighting games and fixed dates for culture events.

There is also scientific evidence as shown in the fourth assessment report of the intergovernmental panel on climate change (IPCC) that is emission continue to rise at these current paces and are allowed to double from their pre industrial level, the world will face an average temperature rise of around 30c this century. This is pointing to the fact that there will be sea level rise, drought, floods, and shift in growing seasons and son on. Also, Ban ki moon, during the Copenhagen's summit, "Across Africa, the most vulnerable continent", said that climate change threatens to roll back years of developmental plans" (New Nig. Newspaper, 7<sup>th</sup> March, 2008). It has been observed that climate change in weather conditions has resulted in change rainfall patterns which contributed to more damaged roads all across the nation. Heavy rain downpour has brought large pot holes in many Nigerian Roads. These factors can cause a shift in tourist destination and participation. This additionally can lead to increasing road maintenance cost which the government may not meet up of the time.

The climate change information on Nigeria (2008) reported the impact of climate change on the following sectors of Nigeria.

- Energy: since hydropower generation is the energy source in Nigeria, it is likely to be affected if there are reduced flows in rivers leading to higher temperatures, which will result in decrease in electric utilities
- Industries: Industry located in coastal zone will suffer negative impact of rise in sea-level characterized by flooding for instance, this can affect beach-based tourism and recreation industries, and also disrupt oil and gas exploration and extraction in that area. The coastal zone industries are likely to suffer devastating thunder storms, floods, windstorms that can destroy infrastructure, which can disrupt activities and incur cost for repairs of damaged facilities. Northern zone can be exposed to warmer climate on water supplies thereby making cooling process and environmental process more expensive.
- The dynamics of consumer behaviour: Climate change can make industries that produce clothing to alter their production profile by producing more or less warm/cool weather clothing in response to changing demands of consumers affected by fall/rise in temperatures. Industries in northern/southern zone may have to design or produce wind/storm resistant umbrellas in response to rise in windstorms. Other industries that cannot adapt may fold up.
- Government Policies: If government should impose carbon taxes, this will increase production cost and make services more expensive.

### **1.2 TOURISM ACTIVITY'S SENSITIVITY TO CLIMATE CHANGE**

Tourism activity is highly sensitive to the impact of climate, the United Nations (2008) declared the theme of the world tourism day's celebration to be: "TOURISM: RESPONDING TO CHALLENGES OF CLIMATE CHANGE". Experts agreed that dedicating a day to the issue of climate change has become imperative because in 2011 United Nations shows that tourism generates about five percent of global emissions. Ijeoma and Aiyeloja (2009) maintained that climate change is a change in the collective pattern of expression of weather elements such as rainfall, temperature, dew, humidity, sunshine, mist and cloud overtime.

Ezirigwe (2008) argued that climate change is caused by some gases in the atmosphere such as carbondioxide (Co2), Methane, Nitrous oxide and water vapour that traps heat from the sun reflecting off the earth's surface and keep the earth warm which is termed the "green house effect". The concentration of these gases in the atmosphere increased energy consumption, gas flaring leading to global surface temperature and climate change resulted in global warming. There have been even fewer studies that examine the sensitivity of tourism to atmospheric conditions generally. Odjugo, (2008) asserted that it is generally accepted that climate is

an important part of a region's tourism resource base but little is known other than in very general terms about the effects of this climate.

### **1.3 CLIMATE CHANGE CAUSES MORE DEATH OF TOURISTS**

The president of the World Travel Market (WTM), Fiona Jeffery disclosed at the world travel markets ministers meeting organized by the United Nations World Tourism Organization (UNWTO) to assess the effects of economic crisis on the industry and examine new solution to overcome serious issues like climate change is causing annual death toll equivalent to the boxing day 2006 Tsunami. According to Jeffery (2009), the global humanitarian forum has it that climate change accounts for more that 300, 000 death each year. ([Http://africa.com.stories](http://africa.com.stories),2009).

For full development and utilization of potentials in Nigeria, combating Climate change effects and proper planning is needed to take care of climatic factors limiting tourism industry.

### **1.4 TOURISM: COMBATING CLIMATE CHANGE IN NIGERIA**

Directly or indirectly, climate change can have a significant impact on tourism participation by altering tourism's Key attraction which is the environment. For instance, in late March, this year (2012) it was observed that the heat in Nigeria was so intense and the environment (atmospheric temp.) was unbearable that many residents could hardly sleep inside their rooms. Coupled with the heat was a dust haze that enveloped almost all major cities including the federal capital territory. Several flights at the Nnamdi Azikwe Airport were cancelled by airline operators owing to the dust haze, which caused poor visibility (the punch April 2012). Climate on tourism or the role it plays and even less is known about the significance of climate on commercial prospects for tourism. A review of researches indicates quote a rich array of literature space studies of the impact of climate on tourism patronage. Mental (2001) cited in Odjugo, (2008) argued that good weather is the main reason to go abroad for tourism activities. Weather and climate are critical factors in domestic and international tourism participation and rather than being a distinct and isolated variable, weather is embedded in the fabric of holiday life. The influence of several climatic conditions on both ideal holiday destinations and on perceptions of the wet tropical areas of Far North Queensland destination image does strongly influence tourists' behaviour (Eugene et el, 2008). At the same time transport which is at the heart of travel and tourism is one of the means by which green house gases are generated, particularly from air travel. (UNWTO, 2007).

The level of Carbondioxide (Co2) emission in Nigeria (96,513 million metric tons) was the highest in sub-sahara Africa. Emissions from flared gas alone were reported to have accounted for more than half of this figure. It was also reported that with regards to climate change, Nigeria has established a unit in the Federal Ministry of Environment for the purpose of effective coordination of activities towards implementation of the climate change convention.

In recent times, The International Civil Aviation Organization has released new certification levels for numbers of emissions in flight due to fleet characteristics. These points to the fact that emissions of green house gases can reduce to minimize or curb the effect of climate change (Okoli, 2008).

The World Tourism Organization (WTO) after a conference in Swiss Resort of Davos (2007) concluded that tourism industry is going to double between now and 2020 in the same time. However, In Nigeria, if tourism industry must succeeded; an effort towards having a carbon free environment must be made. A change in climate can alter the natural environment which serves as a pull factor for tourism in Nigeria. The strength of Nigeria's tourism is its ecotourism (abundance of hills, mangroves, caves, slave routes, cultural heritage, rivers and lakes, wild life, zoos, historical sites etc) which unfortunately is a big target for climate impacts (Ezirigwe, 2008). Nigeria has two seasons of weather – the rainy and dry season. the rainy season starts from April to October, while the dry season starts from November to March. In the Southern Nigeria, the monthly temperature range falls between 25°C – 28°C whereas that of the Northern Nigeria falls between a range of 28 °C - 32 °C. These different seasons allow tourists to make their choice of their tour period, either during rainy or dry season. Odjugo (2008) in a recent findings on the participation rate of tourist in Nigeria, it was revealed that though tourism participation flourish throughout the year local tourist visit the tourist centre more during the dry season, while international tourist visit Nigeria destinations more during the season which correspond with their summer holiday period.

Efe (2007) research on participation in tourism activities carried out in Abuja pointed out that significantly, tourism activities and involvement depended on weather conditions. It was revealed that rainfall, harmattan and or dry season has effect on tourists participation using 10 recreational centres from all these findings, it has been observed that climate has a major role to play in tourism and participation in Nigeria. Ijeoma and Aiyeloja (2009) asserted that there is nothing strange about climate change since climate condition are dynamic and variability in climate is a common experience over the years. However, the recent and current change which is marked by global warming calls for concern as the following facts have been established:

1. The rise in temperature is far more on the increase than it has done for 10,000 years.

2. There is increase in atmospheric concentration of greenhouse gases responsible for rise in sea level.
3. The challenge of climate change is caused by human activities.

In Nigeria, there are several evidences of climate change as listed by the Nigeria Environmental Study Action Team (NEST) and Global Strategies International (GSI) 2004 which are as follows.

- Late arrival of rains
- Unusual rainfall pattern
- Increase in floods
- Harmattan being hardly noticed in some years
- In some other years, it is prolonged and severe

With all these, Nigeria's tourism is likely to suffer damage from climate change if worsen. As such, since international tourism increases during rainy season, it may likely drop if rainfall pattern changes any year.

## 2.0 CONCLUSION

It is obvious that tourism can not be at its best amidst adverse climatic change resulting in harsh climatic conditions, flood, irregular rainfall pattern, drought leading to poverty etc. Tourism is married to good climate conditions, any attempt to divorce them could lead to danger. It is necessary, therefore, to take the issue of combating climate change more seriously than ever before. Tourism industry is a growing sector that needs to be nurtured to bring out the best at all times. Efforts of all stakeholders in the tourism sectors should be geared towards a safer cleaner environment in Nigeria.

## 3.0 RECOMMENDATION

Tourism is said to be environment dependent, therefore, climate change, weather variation, global warming are terms used interchangeably pointing to the fact that appropriate measures should be taken in making our environment a pollution free one. The stakeholders in the Nigeria tourism industry should step up effort in diversity to sources that can reduce emissions.

Legislators should pass the bill for climate change commission to tackle issues on reduction in release of emission as this causes great damage to our eco-systems. This commission will have as part of her mandates greater awareness creation on the effect of all harmful pollutants such as burning of fossil fuel and felling of trees. The commission should work on environmental issues like waste management and pollution control activities, conservation and sustainable management of bio-diversity and environmental awareness. Also, there is a need for mass tree planting as a way to conserve our natural environment by the government. Recently, the United Nations took a bold step by taking the lead in planting one billion trees after the climate change summit held in Copenhagen in September 2009. Nigeria too should not be left out as this can be achieved by intensifying trees planting campaign throughout the country. This will not only help to ameliorate the climate but also provide opportunity for recreation.

It is also recommended that environmental friendly products should be produced and promoted. The tourism industry must adapt to climate change, improved technology and facilities that will help tackle the challenge of climate change should be highly canvassed or by all stakeholders. Tourists and the local residents should participate in environment friendly tourism activities and ensure that their involvement in tourism will support conservation of natural environment. Climate change can become a clog in the wheel of the nation's great and untapped benefits derivable from tourism if care is not taken.

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