

# Climate change scenario in Nigeria: local perceptions and the way forward

## Cambio climático en Nigeria: percepciones locales y el futuro escenario

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### ABSTRACT

The contributions of all and sundry are salient to the global efforts in mitigating climate change-associated challenges. While global communities are rallying round to discuss the effects of climate change with millions of dollars being sunk into the process of mitigation, it is so unfortunate that the perceptions about the climate change menace is quite unwelcomed. The implications of such attitude manifest in the attitude towards the causative actions being noticed which seemed to be unabated, most especially in developing countries. This brief communication examines the case of local perception on climate change in Nigeria and the way forward. Education and enlightenment on the reality of climate change and its manifestations are desirable at both local and international levels by relevant stakeholders.

Key Words: Climate Change, Communication, Local perceptions, Developing Countries, Nigeria

### RESUMEN

Los aportes de todas las personas son importantes para los esfuerzos globales de mitigar los desafíos asociados al cambio climático. Mientras las comunidades mundiales se reúnen para discutir los efectos del cambio climático, donde gastan millones de dólares en el proceso de mitigación, las percepciones sobre la amenaza de este cambio, lamentablemente, no son bien recibidas. Las consecuencias de esta postura se manifiestan en las acciones causantes vistas, las cuales parecen no haber disminuido, en especial en los países en vías de desarrollo. Este breve documento investiga el caso de la percepción local sobre el cambio climático en Nigeria y su respectivo futuro. La educación y la aclaración de la realidad del cambio climático y sus manifestaciones son convenientes tanto a nivel local como internacional, por parte de las partes interesadas.

Palabras clave: cambio climático; comunicación; perspectivas locales; países en vías de desarrollo; Nigeria

### INTRODUCTION

Climate change is defined as a change which is attributed directly or indirectly to human activities that alter the composition of the global atmosphere and which are in addition to natural climate variability observed over comparable time periods (United Nations, 1992; Rahman, 2013; Stigter and Ofori, 2014). It was further stated that change in climate is one of the most serious environmental and human threats in the 21st century undermining the achievement of the Millennium Development Goals (MDGs) and the international communities'

efforts to reduce extreme poverty. Intergovernmental Panel on Climate Change (2007) also defined climate change as a change in the state of climate that can be identified, (possibly through statistical analysis) by changes in the mean and/or the variability of its properties, and that persists for an extended period typically decades or longer. The length of time it takes the changes to manifest matters. However, the level of deviation from the normal and its impact on the ecology are most paramount (Odjugo, 2010). Thus, secular variation in climate often experienced between 100 and 150 years may not be adjudged to be climate change if such conditions will quickly reverse later evidence of permanent impacts on the ecosystem may be classified as climate change (Ayoade, 2003).

#### PROVES OF CLIMATE CHANGE INCIDENCE IN NIGERIA

Olorunfemi *et al.* (2009) revealed that in view of its geography, climate, vegetation, soils, economic structure, population and settlement, energy demands and agricultural activities, Nigeria has become susceptible to the effects of climate change. Nwafor (2007) also reiterated that the biting effects of change in climate will be felt more in underdeveloped nations, especially in Africa due to their low level of coping capabilities. Odjugo and Ikhuoria (2003) and Ayuba *et al.* (2007) further stated that evidences have shown that Nigeria is already being plagued with diverse ecological problems which have directly linked to the scenario of climate change. For instance, Odjugo (2010) stated that the mean air temperature in Nigeria between 1901 and 2005 was 26.6°C while the temperature increase for the 105 years was 1.1°C which was higher than the global mean temperature increase of 0.74°C recorded since 1860 when actual scientific temperature measurement started IPCC (2007). Thus, Odjugo (2005) stressed that if this trend continues unabated, the temperature increase may be as high as 4.5°C by 2100.

In addition, Ogunbode and Ifabiyi (2019) discovered that rainfall incidence is on the increase between 1970 and 2007, the result which corroborates the observation of Odjugo and Ikhuoria (2003) on the experience in the coastal areas of Nigeria. Ewona *et al.* (2014) in supporting these findings also discovered that there is consistent increase in rainfall over a period of thirty years studies (1997-2007) across Nigeria. Adakayi (2012) discovered similar trends in the northern part of Nigeria, (1991-2006) for both rainfall and temperature).

#### LOCAL PERCEPTION ON THE REALITY OF CLIMATE CHANGE SCENARIO IN NIGERIA

In spite of the global shouts on the reality of climate change, the perception and the belief of local people about the scenario is still worth of consideration. The menace has been a subject matter and a serious concern to the global community as it is being seen as a serious threat to the survival of man. Despite all these investigations proving the reality of climate change scenarios in Nigeria, it has been found that the perception about what attributed to this scenario among local setting is different. For instance, Falaki *et al.* (2013) found that climate change is attributed to bush burning, tree cutting and sinful behavior; also, Daba (2018) stressed on human action such as intensified agriculture, deforestation, increased use of fossil fuel and use of chemical fertilizers on farms while Kabir *et al.* (2016) mentioned deforestation as a result of population growth, industrial effluents and black

smoke of vehicles as the reason behind climate change scenario while some just hold the belief that the change is a normal occasional variation in the atmospheric processes which often corrects itself over time. Thus, all these local beliefs about climate change influence the local people's awareness (Ogunbode *et al*, 2019).

#### WHAT NEXT?

Climate change and its mitigation is currently the target of the Nations throughout the world in view of its consequences and threats to human survival. Several conferences at local, continental and international levels are currently organized globally with the aim of seeking remedies to continuous CC. Apart from this, agreements have been reached by world nations, especially the advanced ones on committing funds to checkmate the impacts of CC scenario. In the light of these global events, local communities cannot be indifferent to all these global efforts on CC. Thus, whatever, might be the local belief and perception about the scenario, it is highly demanding that thorough and regular and consistent investigations is required on the impacts of climate change on various environmental attributes and activities such as water accessibility, crop production, human health, animal production and so on. Furthermore, studies should also include research into spatial dissemination of relevant and related information that will enhance the understanding of the reality of climate change (see Ogunbode *et al.*, 2019), especially among the local settings, as obtained through scientific means in good time.

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