

# Impact of Climate Change on University Administration in Nigeria

*Ernest Ohiosumua Ohibime<sup>1</sup>, Niyi Jacob Ogunode<sup>2</sup>*

**Abstract:** This paper looked at the impact of climate change on university administration in Nigeria. Secondary and primary data were adopted for the paper. The paper identified disruption of university administration, reduction in university funding, reduction in number of academic staff, destruction of infrastructural facilities, teaching programme, research programme, community services programme and students' death are used in this paper as impact of climate change on the university administration in Nigeria. The paper among other things, that universities authorities should institute tree planting in their institutions. They can extend it to the community as community service programme.

**Keyword:** Administration, Climate Change, Impact, University.

## Introduction

According to the NPE (FRN, 2004), university education is expected to make optimum contribution to national development through the intensification and diversification of its programs for the development of high level human resources base within the context of the needs of the nation; make professional course contents to reflect Nigeria's national requirements; make all students, part of the general program of all-round improvement and to offer general study courses such as history of ideas, philosophy of knowledge and nationalism. Universities are expected to encourage and disseminate their research results to both government and industries. Universities are expected to inculcate community spirit in their students through projects and action research. They are expected to ensure that faculty in their professional fields have relevant industrial and specialized experience. However, the NPE states that a huge percentage of funding for university education shall be devoted to Science and Technology (Ololube, 2016).

The university education according to Ogunode (2020); is grouped among the tertiary education or higher education in Nigeria. Tertiary education was defined Federal Republic of Nigeria in her national policy on education (2013) as the education given after Post Basic Education in institutions such as Universities and Inter-University Centres such as the Nigeria French Language Village, Nigeria Arabic Language Village, National Institute of Nigerian Languages, institutions such as Innovation Enterprise Institutions (IEIs), and Colleges of Education, Monotechnics, Polytechnics, and other specialized institutions such as Colleges of Agriculture, Schools of Health and Technology and the National Teachers' Institutes (NTI) (FRN, 2013). Tertiary Education goals according to the national policy shall to include: contribute to national development through high level manpower training; provide accessible and affordable quality learning opportunities in formal and informal education in response to the needs and interests of all Nigerians; provide high quality career counseling and lifelong learning programmes that prepare students with the knowledge and skills for self-reliance and the world of work; reduce skill shortages through the production of skilled manpower relevant to the needs of the labour market; promote and encourage scholarship, entrepreneurship and community service; forge and cement national unity; and promote national and international understanding and interaction (FRN, 2013).

The realization of the university education objectives and goals depends on a peaceful and conducive learning environment. The university environment is no longer conducive for the implementation of teaching, research and community services programme of the universities due to various symptom of climate change.

## Concept of Climate Change

Climate change according Uchegbu and Ugwuanyi (2009) is the persistent fluctuation in the climatic elements for a considerable length of time usually 35 years. It is phenomenon created by human beings and nature, which devastated the earth and cause hardship of unpredicted magnitude to the living. The term Climate, which is part of the word climate change according to Inikpi (undated) is the pattern of weather, powered by the sun, in a particular place determined by variables such as the intensity of sunlight, rainfall and wind. While the drastic change in weather in a particular place over a considerable period of time is referred to a climate change. United Nation Environmental Programme (UNEP) referred to climate change as extreme reaction of the weather phenomenon which creates negative impact on agricultural resources, water resources, human health, and depletions of ozone layer, vegetation, soil and doubling of CO<sub>2</sub> in the ecosphere. Offorma (2010) defined climate change as a continuous, rapid, and prolonged alteration of climate in one direction which reflects changes in the variability or average state of the atmosphere overtime scales, ranging from decades to millions of

<sup>1</sup> Department of Education, University of Abuja, Nigeria

<sup>2</sup> Department of Education, University of Abuja, Nigeria

years. Wikipedia, the Free Encyclopedia (2012), defined climate change as a significant and lasting change in statistical distribution of weather patterns over a period ranging from decades to millions of years.

There are many causes of climate change in Nigeria. Mbah (2014) and Obi (2020) identified the human activities which include: bush burning, deforestation, desertification, burning of fossil fuels, and industrial pollutions. These activities of man, cause the release of excess carbon dioxide (CO<sub>2</sub>) and other heat trapping emissions such as methane (CH<sub>4</sub>), Nitrous Oxide (N<sub>2</sub>O), chlorofluorocarbons (CFCs) and Ozone (O<sub>3</sub>). These green-house gases contribute to the depletion of the Ozone layer in the atmosphere leading to global warming.

The natural phenomena that contribute to climate change include: Solar output, variations in earth's orbit, volcanic eruptions, and ocean variations Ekpo (2009). Stated that every system, whether human or otherwise is tied to climate and that changes in climate affect many related aspects of where and how people, plants, and animals live. Inikpi (undated) and Adamu and Alarima (2013) attributed climate change to human activities and natural occurrences. Human activities that contribute to climate change are burning of fossil fuel deforestation and a growing world population. When fossil fuels such as coal, oil and gas burned they release carbon dioxide into the atmosphere, which leads to accumulation greenhouse gases in the atmosphere.

Nigeria has been experiencing significant changes in her climate with the consequence of increased temperature, irregular rainfall, recurring extreme weather events, drought and desertification, rise in sea level and flooding, land degradation and loss of biodiversity etc, (Elisha et al., 2017). The climate change associated challenges vary across the country with low precipitation in the North and high precipitation in parts of the Southwest and Southeast (Haider, 2019) leading to drought and desertification in the north and flooding and erosion in the South (Akande et al., 2017). Climate change is affecting almost every sector of the economy and the educational sector is not exempted. It is important for researchers to discuss the impact of climate change on the university administration in Nigeria.

### **Impact of Climate Change on University Administration**

Disrupts university administration, reduction in university funding, destruction of infrastructural facilities, teaching programme, research programme, community services programme, reduction in number of academic staff and students' death are used in this paper as impact of climate change on the university administration in Nigeria.

### **Disruption of University Administration**

Climate change has affected the university administration which is the life wire of the university system. All activities and programme in the universities depends largely on the university administration. Ogunode (2020) defined University administration as to the application of the universities' resources to implement the programme of the universities with the aims of realizing the objectives of the universities. University administration is the mobilization and arrangement of both human and materials resources for the achievement of the university's goals. University administration is the effective use of the resources of the university to implement the teaching programme, research programme and the community service programme of the universities. University administration is the deployment of the universities' resources to accomplish the universities' programme. The objectives of university administration include: to implement the programme of the universities as defined; to allocate resources for the implementation of the universities programme; to ensure implementation of teaching programme, to ensure implementation of research programme; to ensure delivery of quality community services programme, to ensure effective staff development, to ensure effective student administration, to ensure smooth implementation of academic calendar and to ensure quality education. Increased rainfall, which results in flooding and erosion, in addition to excessive heat and wind storms which are the outcomes of climate change according to Inikpi (undated); Akuegwu, Nwi-Ue, and Nwikina (2012) has negative impact on academic staff role of classroom teaching, research, and administrative. Abubakar Tafawa Balewa University (ATBU) Bauchi, has been shut down following the death of four students in a flood disaster that hit the institution. The closure directed by the university authority affected the university administration.

### **University Funding**

The funding of public universities in Nigeria have been greatly affected by climate change. This submission was confirmed by Inikpi (undated) who observed that climate change has direct and indirect impact on the sources of funds and how funds are spent in secondary schools. When parent's means of livelihood are affected by flood or drought, the families' economic power will be affected, thereby affecting payment of their children school fees. The manifestation of climate change as excessive rainfall leads to flooding, that submerged farms, homes, fish ponds, which are known means of livelihood for parents. Drought also affects parents who depend on agriculture and animal husbandry, thereby affecting farming activities. When parent's capacity to pay their ward school fees is affected, it will be difficult for school authorities to generate enough funds for effective school management. Since school fees is one of the major sources of school funds.

### **Destruction of Infrastructural Facilities**

Climate change has led to destruction of infrastructural facilities in many higher institutions across the country. Ohibime (2022) in his unpublished Ph.D thesis defined school facilities are those facilities that help in teaching and learning processes for the betterment of academic purposes. This include curriculum and extra curriculum activities such as computers, libraries, laboratories, workshops, textbooks playground. Ogunode (2020) defined infrastructural facilities as those facilities aiding delivery of academic and non-academic services in educational institutions. Infrastructural facilities

include; libraries, laboratories, halls, offices, administrative blocks, hostels, roads facilities, water, electricity, internet etc. The availability of the infrastructural facilities in adequate quantities will support effective administration of educational institutions and the inadequacies will prevent effective administration of educational institutions. Many public universities in Nigeria do not have adequate lectures halls, laboratories and offices for both students and academic staff. Odogwu (2019) reported that **facilities and infrastructures worth over N500 million have been destroyed by a heavy rainstorm at Alex Ekwueme Federal University, Ndufu-Alike Ikwo (AE-FUNAI), in Ebonyi State.** The rainstorm, which occurred Monday night started with a heavy windstorm. It badly damaged the roofs of about eight buildings in the school, exposing them to the hazards of the rain. The winds also pulled down about 15 solar powered security lights and many trees. In the affected buildings, some equipment, documents, and other office materials were destroyed. Some of the affected buildings are: University Library, ICT building, Pro-Chancellor's office, Entrepreneurship and Employability Centre, and the main University Auditorium. Others are: Faculty of Science Administrative Block, Needs Assessment building, solar-powered security lights stands, and the Female Hall of Residence among others. Mbah (2014) did a study on challenges of climate change on provision of and accessibility to quality education in Nigeria and found out climate change has led to destruction of school buildings and learning materials.

### Teaching Programme

Climate change has led to disruption of teaching and learning programme in many higher institutions especially the universities. Ogunode & Ndayebom, (2022) submitted that tertiary Educational institutions are saddled with the three cardinal programme which include teaching programme, research programme and community service programme. Teaching and learning programme is one of the most important programme of the tertiary institutions. Teaching programme is one of the indicator used to measure the standard of tertiary institutions. Teaching is a process in whereby professional individual carry out instruction to the students with the aims of modifying their behaviors. Ohibime (2022) in his unpublished Ph.D thises Submitted that teaching is a process whereby a professional individual carry out teaching for proper understanding and changing the characters and behaviors. Teaching is a systematic act that involves imparting instructions to the learners in the classroom situation either in basic school, secondary school and tertiary institutions. *Teaching* programme is an organized process of attending providing services to the learners. *Teaching* programme is the act the giving instruction in a basic school or a secondary school or in a university. Teaching and learning programme constitutes the teachers, students and teaching and learning resources. The teachers' qualifications, experiences and leadership skills matters in the implementation of teaching programme. Teaching programme of majorities higher institutions in Nigeria are disrupted whenever there is heavy rain and floods. Inikpi (undated) submitted that when flood occurs, the offices of teachers are sometimes flooded resulting in low teacher's performance, due to low morale that affects their level of commitment. Students as the beneficiary of the goals and objectives of teaching and learning are also affected. Water borne diseases arising from flooding according to Nwaka and Ezeoba (2012) can cause diseases like malaria, typhoid fever, cholera and diarrhoea amongst students. Such teacher will find it difficult to participate in teaching activities in the school. Asian Disaster Preparedness Center (2008) that there is evidence that flooding inhibits completion of school programme, with schools located in flood-prone areas subject to at least one and a half months of closure due to flooding.

### Research Programme

The research programme of higher institutions and specifically those of the universities are also affected by the climate change. Ogunode (2021) opined that higher institutions are known for conducting researches. Higher institutions' major programmes are teaching, researching, and community services. Ogunode & Abubakar (2020) submitted that research is the second cardinal programme of higher institutions. Research is very important to the development of the society. Research is conducted mostly in the higher institutions environment with the objectives to solve problems affecting the society. The academic staff is saddled with the responsibilities of carrying out researches in the universities. Conducting research is one criterion for measuring their performance. Paul (2015) submitted that the conduct of research is one of the basic functions of tertiary institutions, which comprised Universities, Polytechnics, Monothechnics and Colleges of Education. The academic staffs of these institutions are compulsorily required to carry out research activities as their promotions are primarily based on their research outputs. Apart from the academic staff being promoted through research publications, research activities enhance their credibility, status, and also add value both to their immediate community and the larger global community. Yusuf (2012) opined that the role of higher education research in national development cannot be overemphasized. However, research in Nigeria's institutions of higher learning to comprise the universities, polytechnics and colleges of education has yet to make a real impact on the technological advancement of the country and the socio-economic well-being of its citizenry. Climate change have led to destruction of laboratories built purposely for conduction researches. Climate change which have been linked to insecurity in Nigeria has prevented many researchers from conducting research in some area or part of the country especially the South east geo-political zone and North east geo-political zone. Many researchers cannot travel to their research centre due to heavy rains. Olowonefa, Ogunode, & Ohibime (2022); Ogunode, Akin-Ibidiran & Ibidiran (2022) and Musa (2020) submitted that bridge leading to many research site have been damaged by floods while research field and facilities have been washed away by the floods.

### Community Services Programme

Climate change has also affected the community service programme of the universities. Community service programme according to Ogunode & Audu (2022) is the third cardinal programme of the tertiary institutions. Community service programme is an organized and planned service programme of higher institutions for the benefit and betterment of their

host community. Community service programme of higher institutions are community inclined services initiated by the institutions to develop the communities. Community service of higher institution are services provided by institutions to benefits the community people. Community services programme are done near the area where the institutions are located so that the host community can enjoys the benefits of the institutions. Community service of higher institution include all kinds of services that is meant to improve the wellbeing of the people and the society at general. Community service are essential service designed by institutions to provide socio-economic development to the community (Ogunode, Ugochukwu, & Iroegbu, 2022; Ojelade, Aiyedun & Aregbesola). Community service programme should helped the host community solve their community problem. Community service of higher institutions should include services that will impact positively to the community. Community service programme of tertiary institutions is often planned and organized through the involvement of a host community. However, ineffective supervision of the implementation of community service programmes by Universities has affected the development of the programme (Ogunode, Akinjobi, & Musa, 2022; Ogunode, Ugochukwu, & Jegede 2022). Many community programme have been suspended due to rain and flood. Many community cannot be reached because lack of no roads.

### **Reduction in Number of Academic Staff**

Climate change in Nigeria has led to the death of many professional teachers including academic staff hereby reducing the number of academic staff in the universities. Academic staff that is described by Ogunode, Ndubuisi, Jegede (2022); Ogunode, & Ndayebom, (2022); Ogunode, Ezema, & Olugbenga, (2022); Ogunode & Adamu (2021) as.....have suffered many impact of climate change. Many staff have died as a result of disaes cause by floods and heavy rains. Nwaka and Ezeoba (2012) climate change via floods can cause diseases like malaria, typhoid fever, cholera and diarrhoea amongst students and staff and such teacher can die.

### **Resulted to Students' Death**

Many higher institutions students have died as a result of heavy rain and floods that is caused by climate change in Nigeria. The Vice Chancellor of the institution, Prof. Muhammed Abdulaziz announced the closure of the school on Tuesday in Bauchi while addressing newsman over the incident. The vice chancellor said that the flood was as a result of several hours of heavy downpour which led to the collapse of the bridge linking the students' hostels. "The students were trying to return to their hostels in the midst of the rain last night when the connecting bridge between their reading area and their hostels collapsed and the students drowned.

### **Conclusion**

This paper examined the impact of climate change on the university administration in Nigeria. The paper identified disruption of university administration, reduction in university funding, destruction of infrastructural facilities, teaching programme, research programme, community services programme, reduction in number of academic staff and students' death as the impact of climate change on the university administration in Nigeria.

### **Recommendations**

From the points identified in this paper, the following is hereby recommended:

1. Universities authorities should institute tree planting in their institutions. They can extend it to the community as community service programme. Planting of new ornamental trees in the university compound to serve as wind breakers will help reduce the impact S. of wind on structures.
2. Federal and state government should invest in building facilities that are adapted to climate change. This can be done through the building of school structures that are adapted to expected changes in the climate, such buildings should have roof ceiling, fans installed in the classrooms, expansion of classroom windows.
3. Lecturers should be trained on climate change education and adaptation teaching strategies and techniques.
4. University' authorities should provide appropriate temperature regulating facilities such as fans, air conditioners in the classrooms, while head of departments should ensure that lecture halls maintain acceptable ambient [conditions in the classroom, in spite of climate change.
5. Universities management should provide conducive environment teaching and such as planting of trees for good learning environment to encourage climate change.
6. Federal government should provide adequate fund to enable universities authority to run day to day to advert climate change.
7. Federal government should invest on health facilities that will encourage climate change. This can be enhance by providing health equipment's.
8. Federal government should provide a good preventing measure to control heavy rain and flood for better Universe's environment.

### **References**

1. Federal Republic of Nigeria (FRN) (2004). *National policy of education*. Lagos, Nigeria: NERDC.

2. Goteng, K., A., Emmanuel C, H & Alikeju., E, H (2012) The Impact Of Climate Change In Nigeria: Implications For Schooling. *Mediterranean Journal of Social Sciences Vol 3(16),137-145*
3. Haider, H. (2019). *Climate change in Nigeria: Impacts and responses*. K4D Helpdesk Report 675. Brighton, UK: Institute of Development Studies
4. Inikpi, O., H (undated) Challenges of Climate Change and their effect on Secondary School Resources Management in Nigeria.
5. Ogunode N., J. (2020b). Administration of Public Universities in Nigeria: Problems and Solutions *JurnalSinestesia*.10(2) ,p:98-109
6. Ogunode, N., J., Olugbenga, A., V & Ezema., O (2022) Analysis of Factors Responsible for Poor Patronage of Public Higher Institutions in Nigeria by Competent Foreign Academics. *International Journal on Integrated Education*, 5,(6), 176-184
7. Ogunode., N, J., Ugochukwu, U., C & Iroegbu., A., I (2022) Internationalization of Nigerian Higher Education: Problems and Way Forward. *Spanish journal of innovation and integrity*, (6), 202-213
8. Ogunode, N, J., Akinjobi, F., N., & Musa., A (2022) Analysis of Factors Responsible for Nigerians' Patronizing of Foreign Higher Education. *European Multidisciplinary Journal of Modern Science* (6),19-29
9. Ogunode, N., J., Ugochukwu., U., C., & Jegede D. (2022) Effects of Strike Actions on Nigerian Higher Education Goals and Programme. *European Multidisciplinary Journal Of Modern Science* (6),1-9
10. Ogunode, N., J., Akin-Ibidiran T. Y. & Ibidiran J. A.(2022) Analysis of Factors Responsible for Poor Ranking of Public Universities in Nigeria and Way Forward. *European Multidisciplinary Journal Of Modern Science* (5), 1-15
11. Ogunode, N, J., Ndubuisi, A., G, Jegede D (2022) Resource Wastages in Public Tertiary Institutions in Nigeria: Effects and Way Forward. *European Multidisciplinary Journal of Modern Science* (5),16-25
12. Ogunode, N., J & Audu E., I (2022) Community Service Programme of Nigerian Public Tertiary Institutions: Problems and Way Forward. *Spanish journal of innovation and integrity*, (5), 1-9
13. Ogunode N., J. & Ndayebom, A., J (2022) Problems Faced by Teaching Programme in Nigerian PublicTertiary Institutions and way Forward . *Kresna Social Science and Humanities Research Proceedings of the International Conference on Sustainable Development: Problems, Analysis and Prospects*.203-211
14. Ogunode, N., J., Ezema, O., & Olugbenga, A., V (2022) Problems Faced by Academic Leaders in Public Higher Institutions in Nigeria. *Spanish journal of innovation and integrity*, (6), 214-224
15. Ohibime, E.O. (2022) Unpublished Ph.D Thesis University of Abuja.
16. Olowonefa. G. S., Ogunode, N. J. & Ohibime E. O. (2022) Public Universities Funding in Nigeria: Challenges and way Forward. *EUROPEAN JOURNAL OF LIFE SAFETY AND STABILITY (EJLSS)*. (13), 122-132
17. Ogunode N, J & Abubakar 2020. Higher Education in Nigeria: Challenges and the Ways Forward. *Electronic Research Journal of Behavioural Sciences*, Volume 3 (2020)
18. Odogwu, O. (2019) Heavy rainstorm wreaks havoc in Ebonyi university <https://www.sunnewsonline.com/heavy-rainstorm-wreaks-havoc-in-ebonyi-university/>
19. Ololube, N. P. (2016). Education Fund Misappropriation and Mismanagement and the Provision of Quality Higher Education in Nigeria. *International Journal of Scientific Research in Education*, 9(4), 333-349. Retrieved [DATE] from <http://www.ij sre.com>
20. Paul., N. 2015. Research in Tertiary Institutions in Nigeria: Issues, Challenges And Prospects: Implication for Educational Managers, *Journal of Humanities And Social Science (IOSR- JHSS) Volume 20, Issue 6, Ver. 1 (Jun. 2015), PP 45-49*
21. Yusuf. A. K. 2012. An appraisal of research in Nigeria's university sector. *JORIND* 10 (2), pp. 98-
22. Vanuard (August 6, 2019) Authorities shut down ATBU, as flood kills 4 students. <https://www.vanguardngr.com/2019/08/authorities-shut-down-atbu-as-flood-kills-4-students/>