

National Discourse on Climate Change and Food Security in Nigeria: A Content Analysis of Selected Facebook Posts of 2025

Nweze, Ogochukwu Osinachiadimma¹, Okpoko, Chinwe Catherine² &
Obika-Chigbo Chinenye³

¹*Department of Mass Communication, Renaissance University, Ugbawka.
ogochukwunweze1988@gmail.com; +2347067997984*

²*Department of Mass Communication, University of Nigeria Nsukka
chinwe.okpoko@unn.edu.ng; +2348065738520*

³*Department of Mass Communication, University of Nigeria, Nsukka
chinenye.obika-chigbo@unn.edu.ng; +2348065218808*

Abstract

Climate change has become an international debate that needs to be handled with the urgency it deserves. That is why this study was done to analyse the national discourse on climate change and food security in Nigeria using selected Facebook posts. The study employed content analysis with a sample size of 250 posts drawn from five different categories of Facebook users. The study was hinged on framing theory, and findings from the study revealed that although the engagement on climate change posts is low, media organisations and non-governmental organisations are creating leading Facebook discourse on climate change through a tone of advocacy and urgency. The study recommended, among others, that the Nigerian government should give climate change the urgency it needs in order to reduce its impacts on food security.

Keyword: Climate Change, Food Security, Facebook, National Discourse, Posts

Introduction

Nigeria, the most populous country in Africa, relies heavily on agriculture for survival, and a lot has been done to ensure food security through large-scale, modernised farming. But continuous shifts in weather patterns and their direct link to reduced crop yield continue to affect farming in Nigeria. Climate change and its effects on food security have become a global and national concern among policymakers, various agencies, researchers, and the entire citizenry of the world. Change in climate has been linked to a long-term change in weather patterns over a period of time. The United Nations Framework Convention on Climate Change (UNFCCC) defined climate change as a change in climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and, in addition to natural climate variability, is observed over some comparable period of time (Eneji et al., 2022). This means that climate change is predominately caused by human activities that react with natural activities over a period of time. Climate change has affected agricultural activities in Nigeria and the world at large; it has led to low crop yields, erratic rainfall, outbreaks of pests, and droughts, to mention but a few. Food security can be defined as when people at all times have access to sufficient, safe, and nutritious food to maintain a healthy and active life (World Food Summit, 1996). In Nigeria, it is no longer news that the nation's population is growing, and the continuous growth is accompanied by fear of food that will be enough for the growing population. It has been observed over the years that climate change has a direct effect on food security all over the world. As aptly put by Masipa (2017), climate change affects food security through food availability, accessibility, utilisation, and food affordability. This means that climate change affects the prices of food, what is produced, and who gets it.

This topic has been widely discussed on various social media platforms, and Facebook is one of them. A lot of organisations like the Food and Agriculture Organization of the United Nations (FAO), Global Initiatives for Food Security and Ecosystem Preservation (GIFSEP), Action Aid Nigeria, Resilient Food Security Nigeria, and Rising Green constantly write posts on Facebook to talk about climate change and its effect on food security. Many

Facebook users read these posts, comment on them, like them, and even repost or share them. Facebook posts of different organisations with huge followers attract views and likes on the topics of climate change and food security, thereby creating national discourse on them. And all are geared at creating awareness on the link between climate change and food security, suggesting ways to tackle it, and teaching adaptation methods that will also ensure food security.

Statement of Problem

Climate change has over the years affected crop yields that directly threaten food security around the world and Nigeria in particular. Different channels of mass communication have been used to create awareness on climate change and its direct link to food security; a lot of public discourse has failed to capture the urgency of the situation. This can stem from the prominence given to the subject matter, inadequate framing patterns, and disconnection people feel whenever the topic comes up.

Although climate change and food security remain trending discourses across social media platforms, a lot of people do not treat them with the urgency they deserve. A lot of farmers and citizens still attribute the effects of climate change to scepticism, thereby becoming less prepared for its impact on food security. Since Facebook is widely used in Nigeria, it is no wonder that a lot of posts on climate change and food security have been made in 2025. This study is therefore aimed at doing a content analysis on the national discourse of selected Facebook posts of 2025 on climate change and food security in Nigeria.

Objectives of the Study

The main objective of this study is to evaluate the national discourse on climate change and food security in Nigeria: a content analysis of selected Facebook posts of 2025. However, the study will be guided by the following specific objectives, which are to:

1. Evaluate the volume and attention given to issues on climate change and food security in Facebook posts in 2025.
2. Identify the themes and narratives used in various Facebook posts on climate change and food security in Nigeria in 2025.
3. Analyse the tone of Facebook posts on climate change in relation to food security in Nigeria in 2025.

Literature Review

Overview of Climate Change

Climate change is directly affecting everything around the world. WHO (2023) stated that 3.6 million people live in areas highly susceptible to climate change. This means that many people around the world are facing serious climate change problems and may not have what it takes to combat it. As this problem keeps increasing, it spreads to all spheres of human life, like agriculture. Climate change, as defined by United Nations (2016), is the long-term shifts in temperatures and weather patterns, and it is usually caused by human activities. As the temperature rises, it makes the earth temperature increase, thereby leading to heat waves and drought. Countries around the world are putting policies in place to slow down human causes of climate change; this needs to be copied by developing countries like Nigeria to tackle climate change. Because if left unchecked, human beings around the world will be faced with food shortages in a short while.

Causes of Climate Change

The United Nations has maintained that the primary causes of climate change are human-driven, and they include the following:

1. **Burning of fossil fuels:** The burning of fossil fuels is the main human climate-change driver. Fossil fuels are burnt to produce electricity and heat by burning coal, oil, gas, and firewood, which produce carbon dioxide and nitrous oxide. These gases are powerful greenhouse gases that blanket the earth, thereby trapping the sun's heat. This makes the earth get warmer, thereby contributing to climate change.

2. **Deforestation:** Trees are cut around the world for various purposes, like making furniture, cooking, and building. When these trees are cut, they release the carbon they stored, and it also limits nature's ability to keep emissions out of the atmosphere.
3. **Industrial processes:** industrial activities contribute greatly to greenhouse gases, especially carbon-dioxide emissions that pollute the air. And other industrial wastes that are not renewable.
4. **Natural causes:** Natural factors like volcanic eruptions, variations in solar output, and ocean currents also contribute to the causes of climate change. Volcanic eruptions can inject sulphur dioxide into the atmosphere, and this can temporarily block sunlight, thereby causing short-term cooling of the atmosphere, which can lead to extreme cold in the winter.
5. **Transport:** emissions from transport remain the major cause of climate change. Although technology is improving to produce vehicles that run on clean energy, the fact still remains that transportation accounts for one quarter of global energy-related carbon dioxide emissions around the world.

Impacts of Climate Change

1. **Lack of Food Due to Low Crop Yield:** Climate change leads to increased extreme weather conditions that are not good for crop yield, thereby leading to a shortage of food and food insecurity. Climate change has been attributed to strange crop pests and diseases, which attack crops and reduce their yield.
2. **More Health Risks:** With the increase in heat waves, infectious diseases are spread easily, and a lot of people are at risk of contracting illnesses during extreme weather conditions. Heat waves can lead to stroke, meningitis, and emotional distress as a result of displacement due to flooding (UNDP, 2024). Extreme weather conditions can even lead to death.
3. **Increased Drought:** Climate change has led to irregular rainfall, which is worsened by high temperatures causing higher evaporation, thereby causing crops to die. Drought is caused by a prolonged period of abnormal low rainfall, and this can equally lead to desertification of agricultural lands (WHO, 2024).
4. **Hotter Temperatures:** Climate change has led to hotter temperatures due to irregular and inadequate rainfall. It has become a regular occurrence that the temperature is a lot hotter than what it used to be. Hotter temperatures lead to heat waves and wildfires/bush burnings and even fire outbreaks.
5. **More Severe Storms/Flooding:** Flooding has over the years destroyed farmlands and homes, causing deaths and economic losses in Nigeria. NEMA stated that 5.2 million people were affected by floods in 2024 (Punch, 2025). This shows that climate change is no longer an old woman's tale. There have also been reports of severe storms across Nigeria with many trees falling and people displaced.

Overview of Food Security

Food security has to do with availability and access to food in a particular area. This means that for a country to achieve food security, food must not only be available but also accessible to its citizens whenever they need it. Akpa (2021) stated that food security exists when all people always have physical and economic access to sufficient safe and nutritious food to meet their daily needs. This means that food security not only means the availability of food but also the accessibility of it for as much as one needs. It is worthy of note that for anyone to live a healthy life, the person must eat healthy food. As the Nigerian population keeps growing, all eyes are on the agricultural sector to provide an adequate food supply that will be enough for the growing population. It has also been observed by Nwajiuba (2012) that subsistence agriculture has failed to keep up with the growing Nigerian population, so mechanised agriculture is suggested to cultivate crops in large quantities.

Emegha et al. (2025) stated that food security covers three areas, which include

1. **Food availability:** availability of food in sufficient quantity is the basic level of food security. Human beings tend to panic when one of the basic human needs, which is food, is not available.
2. **Food access:** This deals with how well and how fast a person can access food he/she needs for his/her basic nutritional needs. Food should be accessible for all to use at any point in time.
3. **Food use:** This has to do with knowing the appropriate food to use that suits one's basic nutritional needs. This also extends to food preservation and care as well as adequate water and sanitation.

Factors Affecting Food Security in Nigeria

Different factors are militating against food security in Nigeria, and they include the following:

1. **Insecurity:** Insecurity has become a serious problem that threatens food security in Nigeria. A lot of farmers don't go to their farms anymore due to insecurity. Utobo (2025) et al. observed that insecurity significantly disrupted agricultural activities in most agricultural areas, like Benue State. Thousands of farmers have lost their lives across Nigeria in recent times due to herder/farmer clashes.
2. **Climate change:** Climate change has over the years severely impacted food security in Nigeria through erratic rainfall, drought, flooding, and reduced crop yield. Emegha et al. (2025) observed that the impact of climate change on agriculture has led to reduced crop yields, increased food prices, and heightened competition for limited resources. It has also led to desertification of farmlands and increased pests and diseases.
3. **Poor inputs:** poor inputs have militated against food security in Nigeria; wrong agricultural seedlings and planting implements can lead to low crop yield. Idisi et al. (2025) stated that high prices of farm inputs like fertiliser reduce their use, thereby leading to low crop yields.
4. **Poor market access:** Poor market access has constrained farmers from selling their farm produce for a fair price, especially perishable goods. Observed that farmers with market access sell more agricultural outputs, obtain more income, and are able to grow more food compared to farmers with limited access to the market.
5. **Pests** and diseases have reduced crop yields in Nigeria, and pest management plays a critical role in providing food security. Zhang et al. (2018) opined that pests and diseases are major yield-reducing factors threatening food security and farmers' incomes in Nigeria. Treatment and management of pests go a long way in reducing their effects on crop yield, thereby ensuring food security.

Effects of Climate Change on Food Security

Climate change and food security are linked because climate change affects climatic conditions responsible for optimum food production. Climate change and food security have generated a lot of arguments that led to different conferences, like the Nigeria Climate and Security Conference organised in 2024 in four different states of Nigeria to address climate change and food security. Nweze et al. observed that climate change is a leading cause of poverty, reduced food availability, and increased hunger, malnutrition, and food insecurity. This has enormous effects; efforts should be geared towards creating proper awareness of it and also teaching adaptation measures for farmers to downplay its effects.

As aptly put by Dauda (2023), climate change has led to losses in agricultural produce, soil infertility, and droughts, which directly threaten food security in Nigeria. Since climate change can reduce soil fertility and cause drought, governments and concerned organisations should give climate change the attention it needs in order to reduce its impact and promote food security in Nigeria.

Overview of Facebook

Facebook is a social media platform founded by Mark Zuckerberg with his roommates Eduardo Saverin, Dustin Moskovitz, Chris Hughes, and Andrew McCollum in the year 2004. The platform was initially just for Harvard students before expanding to other colleges and to the general public in 2006. Thomas and Bhat (2022) observed that more than 3 billion people across the world use Facebook to exchange ideas, lend assistance, and contribute to the greater good. A lot of topics and information are shared daily on Facebook, and it is no wonder that it reaches billions of people. Climate change and food security have been discussed on Facebook over the years. Global Environment, on 27th January, 2026, posted on their Facebook page on how climate change is degrading lands in northern Nigeria and the way forward. Such posts are made every day on Facebook, and they usually generate a lot of likes and views.

Here, Facebook does not only serve as an entertainment forum but also as a channel of education and passing information to users.

Empirical Review

Utobo et al. (2025) did a study to investigate the impact of insecurity on food security in Benue State. Mixed methods of survey research design and interview were adopted, and a sample size of 180 farming households was used for the study. Findings revealed that the majority of the households experienced one form of insecurity within the past year, with the majority saying that herder attacks were the most prevalent.

While the study under review is focused on the impact of insecurity on food security, the current study aims to investigate national discourse on climate change and food security in Nigeria: content analysis of Facebook posts of 2025.

Magaji and Musa (2024) did an analysis of farmers' awareness of the effect of climate change on food security in Nigeria. The method of data collection is through the questionnaire with a sample size of 400. Findings from the study revealed that farmers' awareness level of the effect of climate change on food security is high, and the study recommended that there is a need for continuous education and awareness programmes for farmers to enhance their understanding of climate change in order to reduce its impacts on food security.

While the study under review made use of survey research design, the current study made use of content analysis. Both studies focused on climate change and food security in Nigeria. Magaji & Muasa used farmers for the study, while the current study made use of Facebook posts.

Awodi and Okpoko (2025) did an analysis of Nigerian newspapers' portrayal of climate change effects on food security. The study analysed two national newspapers with a sample size of 394 articles. Findings from the study revealed that feature articles were predominant with limited editorials and interviews. The study recommended, among others, that a wider range of stories and reliable information, along with more responsible reporting, should be used while reporting climate change and food security in Nigeria.

While the study under review analysed two national newspaper reports on climate change and food security, the current study is focused on analysing Facebook posts on climate change and food security in Nigeria. Both studies studied climate change and food security in Nigeria and also used the same method of content analysis.

Aguolu and Okpoko did an analysis in Addressing Food Security in Nigeria through Climate Change Mitigation: Insights from Nigerian Newspaper Records. The study employed the content analysis method of research design using three national newspapers. Findings from the study revealed that the volume of coverage given to climate change as it affects food security is high while its prominence is low. The study recommended that newspapers should endeavour to place emphasis on the interpretation and analysis of news reports on climate change as it affects food security in Nigeria.

Both studies studied climate change and food security; however, while the study under review studied newspapers, the current study analysed Facebook posts. Both studies employed content analysis in the study of climate change and food security.

Theoretical Framework

The study is hinged on the framing theory of the mass media, which was propounded by Erving Goffman in 1974 and suggests that how something is presented to the public influences the choices people make regarding such subject matter. Framing theory defines problems, diagnoses causes, makes moral evaluations by judging actors involved and recommends remedies. Framing can be done through conflict, human interest, consequences, morality and responsibility.

Linking the theory to the study, as can be seen in Entman (1993), how climate change and food security are framed in Facebook posts determines the level of importance given to the subject matter. The media, through framing,

can select climate change and food security and make emphasis that adverse effects of climate change can cause food shortages while excluding other causes.

Methodology

The study used content analysis as a research design to analyse national discourse on climate change and food security using selected Facebook posts from January to December, 2025. Of all the millions of posts made on Facebook in 2025 in regard to climate change and food security, the researchers grouped the posts into different categories like government pages, media organisations, non-governmental organisations, individual users and farmers' associations. To evenly cover the categories, the researchers then randomly selected 50 posts each from each category, making it a total of 250 posts. Therefore, the sample size for the study is 250. Data collected were analysed using thematic analysis involving conflict, human interest, consequences and responsibility while aligning them with the objectives of the study.

Presentation of Data

Table 1: Volume of attention given to issues on climate change and food security in Facebook posts in 2025

S/ N	Categories	Governmental pages	Media organisation	Individual users	Farmers' associations	Non-governmental organisations	Total
1	Climate change as the main focus	20 (8%)	26 (10.4%)	8 (3.2%)	104 (41.6%)	92 (36.8%)	250
2	Climate change as a secondary focus	68 (27.2%)	82 (32.8%)	45 (18%)	27 (10.8%)	28 (11.2%)	100%
3.	Engagement rate	(10%)	(18.2%)	(6.3%)	(32.9%)	(32.6%)	250
3.	Frequency of posts	36 (14.4%)	28 (11.2%)	4 (1.6%)	98 (39.2%)	84 (33.6%)	100%
							100%
							250
							100%

Source: Field Work, 2025

Table 2: Themes and narratives used in various Facebook posts on climate change and food security in Nigeria in 2025

S/N	Categories	Governmental pages	Media organisation	Individual users	Farmers' associations	Non-governmental organisations	Total
1	Food/economic crisis theme	61 (24.4%)	36 (14.4)	18 (7.2)	83 (33.2)	52 (20.8)	250 (100%)
2	Environmental crisis theme	40 (16%)	43 (17.2%)	26 (10.4%)	80 (32%)	61 (24.4%)	250 (100%)
3	Conflict theme	32 (12.8)	42 (16.8%)	16 (6.4%)	72 (28.8%)	88 (35.2%)	250 (100%)
4	Human interest theme	71 (28.4)	51 (20.4)	20 (8%)	61 (24.4%)	42 (16.8%)	250 (100%)
5	Adaptation theme	78 (31.2%)	33 (13.2%)	50 (20%)	41 (1.4%)	48 (19.2%)	250 (100%)
6	Government responsibility theme	16 (6.4%)	50 (20%)	59 (23.6%)	76 (30.4%)	49 (19.6%)	250 (100%)

Source: Field Work, 2025

Table 3: The tone of Facebook posts on climate change in relation to food security in Nigeria in 2025

S/N	Categories	Governmental pages	Media organisation	Individual users	Farmers' associations	Non-governmental organisation	Total
1	Urgency	33 (13.2%)	81 (32.4%)	32 (12.8%)	55 (22%)	49 (19.6)	250 (100%)
2	Informative	19 (7.6%)	92 (36.8%)	40 (16%)	42 (16.8%)	57 (22.8%)	250 (100%)
3	Advocacy	27 (10.8%)	103 (41.2%)	19 (7.6%)	37 (14.8%)	64 (25.6%)	250 (100%)
4	Frustration	13 (5.2%)	51 (20.4)	49 (19.6%)	84 (33.6)	53 (21.2%)	250 (100%)

Source: Field Work, 2025

Discussion of Findings

This study employed content analysis to analyse national discourse of Facebook posts on climate change and food security in Nigeria. Research question: I sought to evaluate the volume of attention given to issues on climate change and food security in Facebook posts in 2025. Findings from the study revealed that farmer associations made climate change and food security their main focus in their overall post in 2025, followed by non-

governmental organisations. The engagement rate is high on farmers' association posts, followed by the posts made by nongovernmental organisations.

This shows that the volume of attention given to issues on climate change and food security in Facebook posts in 2025 is not encouraging given the number of likes and dislikes it generates. Engagements on climate change usually generate more engagements, especially when there is flooding and any other natural disaster caused by climate change. This finding is in line with Aguolu and Okpoko (2025), which states that the volume of prominence given to climate change and food security is low.

Research question 2 sought to identify the themes and narratives used in various Facebook posts on climate change and food security in Nigeria in 2025. Government pages had the highest posts on the theme of food crisis, followed by non-governmental organisations. Farmers' associations' posts are tilted towards environmental crisis, followed by nongovernmental organisations. Government pages' posts are tilted towards human interest themes, as can be seen in table 2.

The findings revealed that different themes were used by different categories of Facebook posts. This finding is in line with the tenets of framing theory, which states that the way an issue is framed in the media determines how people react to such an issue. This finding is also in line with Awodi and Okpoko (2025), who found that various themes are used by the media to frame climate change and food security to the public.

Research question 3 sought to analyse the tone of Facebook posts on climate change in relation to food security in Nigeria in 2025. Findings from the study revealed that different tones were used on Facebook posts in 2025, and media organisations used a tone of urgency and advocacy, while farmers' associations used the tone of frustration that the government is not doing enough to check the impact of climate change. This finding is in line with Magaji and Musa (2024), which suggested that governments should rise up to the challenge of climate change in order to check its impacts.

Conclusion and Recommendations

Climate change is becoming a world crisis that affects all spheres of life. It is no wonder that its impact on food security has become a global worry. Every country of the world is on its toes to roll back the effects of climate change. Many people around the world made use of Facebook to connect and share information. Facebook has, over the years, been used to disseminate information on issues that bother society; climate change and food security posts are made on Facebook on a daily basis by different groups and individuals. People react to these posts and at the same time increase the engagement rate of such posts. That is why this study was done to analyse these Facebook posts and how they are linked to food security in Nigeria.

Based on the findings of this research, the study thereby recommends that:

1. Government should intensify creating awareness on climate change and food security using their Facebook pages to generate high engagement on the topic.
2. Climate change should be given the urgency and human interest theme it deserves to limit its impact on food security in Nigeria.
3. The media should take up its role of informing seriously in this area in order to advocate for how to reduce the impact of climate change and also ensure food security in Nigeria.

References

- Abbas, S., Kousar, S., and Khan, M. S. (2022). The Role of Climate Change in Food Security: Empirical Evidence from Punjab Regions, Pakistan. *Environmental Science and Pollution Research*, 29(35), 53718-53736.
- Abdulwaheed, S., Okoro, V. K. and Akinpelu, T. M. (2024). Analysing the Framing of Climate Change Discourse in Nigerian Media: Implications for Public Engagement and Policy Development. *International Journal of Innovative Science and Research Technology*, vol. 9 (7). Retrieved from <https://doi.org/10.38124/ijisrt/IJISRT24JUL329> on 6th February, 2026.
- Aguolu, O. and Okpoko, C. C. (2025). Addressing Food Security in Nigeria through Climate Change Mitigation: Insights from Nigerian Newspaper Records. *British Journal of Mass Communication and Media Research*, vol. 5(2), pp. 38-51. Retrieved from www.abjournals.org on 16th February, 2026.
- Ajaero, I. D. (2025). Influence of Mass Media Reports on Public Perception of Climate Change Issues in Nigeria and Ghana. *Ikenga International Journal of Institute of African Studies*. Vol. 26, No. 2.
- Ake, M., Owoye, G., Ajakaiye, O., Ayantunji, A. K., Apalowo, J., Popoola, O., Joy, O., and Ayantunde, R. T. (2023). Herder-Farmer Crisis and Food Security in Nigeria: A Case of Benue State. *Baltic Journal of Law & Politics*. Vol. 15(7). Pp 204 – 211.
- Akpa, A. D. (2021). Food Security Strategy in Nigeria: Is there a Need for a Shift in Paradigm? *Economic and Financial Review*, vo. 59 (4). Retrieved from www.cbn.gov.ng on 21st February, 2026.
- Ani, K. J., Anyika, V. O., and Mutambara, E. (2022). The Impact of Climate Change on Food and Security in Nigeria. *International Journal of Climate Change Strategies and Management*, 14(2), pp. 148-167. Retrieved from <https://doi.org/10.1108/IJCCSM-11-2020-0119> on 16th January, 2026.
- Antwi, K. (2024). Merging adoption of natural climate solutions in agriculture with climate and non-climate risks within an (intra)gendered framework. *Science Report*, vol. 14 (11672). Retrieved from <https://doi.org/10.1038/s41598-024-60469-w> on 21st February, 2026.
- Awodi, S. and Okpoko, C. C. (2025). Analysis of Nigerian Newspapers' Portrayal of Climate Change Effects on Food Security. *International Journal of English Language and Communication Studies*, vol. 10 (4). Retrieved from www.iiardjournals.org on 21st February, 2026.
- Ayanlade, A., Oluwatimilehin, I. A. Abatemi-Usman, S. (2023). Gendered Vulnerabilities to Climate Change and Farmers' Adaptation Responses in Kwara and Nassarawa States, Nigeria. *Humanities and Social Sciences Communication*. Vol. 10, No. 911. Retrieved from <https://doi.org/10.1057/s41599-023-02380-9> on 20th February, 2026.
- Bedeke, S. B. (2023). Climate Change Vulnerability and Adaptation of Crop Producers in Sub-Sahara Africa: A Review on Concepts, Approaches and Methods. *Environmental Development and Sustainability*. Vol. 25(3), 1-35. Retrieved from www.researchgate.com, DOI:10.1007/s10668-022-02118-8 on 18th February, 2026.
- Bedeke, S. B., Wouter, V., Muluken, G., W. Kolandavel, N., and Patrick, V. M. (2018). Perception of and Response to Climate Change by Maize-Dependent Smallholders. *Climate Research*. Vol. 75, no. 3, pp. 261-275. Retrieved from <https://www.jstor.org/stable/26503305> on 20th February, 2026.
- Dauda, R. (2023). Climate Change Impacts on Food Security and Nutritional Outcomes in Nigeria: Challenges and Policy Options. Nigerian Economic Summit Group. Retrieved from www.research@nesgroup.org on 20th February, 2026.
- Ditta, A., Bashir, F., Hussain, A. and Hashmi, M. S. (2023). Climate Change and Food Security in Selected Developing Countries: Panel Data Analysis. *Journal of Social Sciences*. Vol. 3(2), 963-974.
- Dumitrascu, M., Roznovietchi, I., Sima, M., Grigorescu, I., Mitrica, B., Micu, D., Falcescu, V., Bulai, A. and Cheval, S. (2026). *Environmental Development*, vol. 57. Retrieved from <https://doi.org/10.1016/j.envdev.2025.101346> on sciencedirect.com on 21st February, 2026.
- Emegha, K. N., Bosah, P. C., Idigo, B. C. and Oforbuike, C. L. (2025). The Effects of Climate Change in Food Security in Nigeria: A Review. *International Journal of Research and Scientific Innovation*. Retrieved from <https://doi.org/1051244/IJRSI.2025.12040076> ON 20th February, 2026.

- Eneji, M. A., Emmanuel, R. M., Dalut, N. A., and Abdullahi, G. (20220). Impact of Climate Change and Agriculture and Food Security in Nigeria. *Social Sci. Journal*, vol. 6, pp. 2581-6624. Retrieved from <https://www.purkh.com> on 13th January 2026.
- Entman, R. M. (1993). Framing: Towards Clarification of a Fractured Paradigm. *Journal of Communication*, vol. 43(4). Pp 51-58. Retrieved from www.researchgate.com on 29th January, 2026.
- Ezekwe, C. I., Imara, J. N. H. and Appolos, E. (2024). Climate Change and Food Security in Nigeria: Implications for Staple Crop Production. *International Journal of Environment and Climate Change*. 14(12), pp. 486-495. Retrieved from <https://doi.org/10.9734/ijecc/2024/v14i124639> on 30th January, 2026.
- Global Environment Facility (2026). Empowering Smallholders, Boosting Food Security: A Facebook post of 27th January, 2026.
- Henok, W., Tsegaye, B., and Walelign, W. (2025). Trends of Climate Variability and Its Association with Farmers' Perceptions of Climate Change in the Gassera District, Southeastern Ethiopia. *Scientific Reports*, vol. 15 (4399). Retrieved from <https://doi.org/10.1038/s41598-025-89017-w> on 18th February, 2026.
- Houghton, D. D. (2002). *Introduction to Climate Change: Lecture Notes for Meteorologists*. Secretariat of the World Meteorological Organization, Geneva, Switzerland.
- Idisi, P. O., Adeagbo, B. A., Ogwu, I. J. Alawiye, M. A., Mohammed, M., Ifekoya, C. C. and Otayokha, J. (2025). Farm Input Price Changes and Their Impact on Households' Welfare in Nigeria: A Review. *International Journal of Multidisciplinary Research and Growth Evaluation*. Retrieved from <https://doi.org/10.54660/IJMRGE.2025.6.6.400-408> on 20th February, 2026.
- Kalu, N. E., Patrick, C. B. & Oforbuike, L. C. (2025). The Effects of Climate Change on Food Security in Nigeria: A Review. *International Journal of Research and Scientific Innovation*, xii(v). Retrieved from <https://doi.org/10.51244/IJRSI.2025.12040076> on 20th December, 2025.
- Masipa, I. S. (2017). The Impact of Climate Change on Food Security in South Africa: Current Realities and Challenges Ahead. *National Library of Medicine*, 9(1). Retrieved from www.ncbi.nlm.nih.gov/art, doi:10.4102/jamba.v9il.411 on 16th January, 2026.
- Nwagbo, N. C. and Anabaraonye, B. (2025). Climate Change and Food Security in Nigeria: Exploring the Roles of Government. *Eduac Multidisciplinary Research Journal*. Retrieved from www.researchgate.net on 20th February, 2026.
- Nwajiuba, C. (2012). Nigerian Agriculture and Food Security Challenges. *Agriculture and Food Security*, 2012, 45 – 53.
- Nwanta, N. F., Okpongkong, G. I. and Osamor, J. A. (2025). A Comparative Analysis of Punch and Guardian Newspapers' Coverage of Food Insecurity in Nigeria. *Journal of Social Sciences and Humanities*, vol. 12. Retrieved from <https://doi.org/10.1016/j.ssaho.2025.101994> on 31st January, 2026.
- Nweze, M. U., Sunday, N., and Sambo, M. (2025). Effects of Climate Change on Food Security and Sustainable Development in the Northeast Geopolitical Zone, Nigeria. *International Journal of Agriculture and Earth Science*, vol. 11, no. 7. Retrieved from www.iiardjournals.org on 30th January, 2026.
- Offiong, A., Njorkun, N. B., Offem, O. O., Orji, E. I., Ojong, A. A., Bullem, A. G., Efut, E. N., Amalu, E. M., Ajom, T. S., Ekpenyong, V. O., Abonor, L. B., Addo, D. E., Uwa, E. D., Edet, E. O., Ettah, O. I., Ofozoba, C. A., Enamhe, D. C., and Okaforcha, C.C. (2026). Public Perception of the Impact of Climate Change on Rainfall Distribution Patterns and Agricultural Production in South-South, Nigeria. *Ianna Journal of Interdisciplinary Studies*, vol. 8 No. 1.
- Oludare, S.D. (2019). The Impact of Climate Change-Induced Extreme Events on Agriculture and Food Security: A Review on Nigeria. *Agricultural Science*, VOL. 10, No. 4. Retrieved from scrip.org/journal. DOI: 10.4236/as.2019.104038 on 14th February, 2026.
- Oyelakin, T. E. and Bisiriyu, O. L. (2025) Perception of Climate Change and Health Implications in Nigeria: A Planetary Health Perspective Using Afrobarometer Data. *Research Square*, vol. 1. Retrieved from www.researchsquare.com, <https://doi.org/10.2103/rs.3.rs-7647558/v1> on 20th February, 2026.
- Pidcock, R. (2016). Scientists Clarify Starting Point for Human-Caused Climate. *CarbonBrief*. Retrieved from www.carbonbrief.org.scientists-Clarify-the-starting-point-for-human-caused-climate on 20th February, 2026.

- Punch (2025). 5.2 Million People Affected by Flood in 2024, 20th June, 2025. Retrieved from www.punchng.com on 6th February, 2026.
- Reuveni, S. (2025). A Unified Model for Addressing Hunger in Developed Countries: An Evidence-Based Analysis Integrating Climate Challenges, Country Stability, Economic Structures and Policy. *Eximia*, vol. 14(1), pp. 45-68. Retrieved from www.researchgate.com. doi:10.47577/eximia.v14i1.530 on 28th January, 2026.
- Thomas, L. and Bhat, S. (2022). An Overview of Facebook's Journey to Meta: A Case Study. *International Journal of Case Studies in Business, IT and Education*, vol. 6(1). Retrieved from <https://doi.org/10.5281/zenodo.6479236> on 20th February, 2026.
- United Nations (2016). Climate Action. Retrieved from www.un.org/climateaction on 16th February 2026.
- United Nations Development Programme (2024). Climate Change and Health. Retrieved from <https://www.undp.org> on 21st February, 2026.
- Utobo, O., Obiekwe, N. J. Nwankwo, E. O. and Muojekwu, A. C. (2025). Impact of Insecurity on Food Security in Benue State, Nigeria. *International Journal of Sub-Saharan African Research*. Vol. 3(3), 149 - 161. Retrieved from <https://www.ijssar.com/paper/impact-of-insecurity-on-food-security-in-benue-state-nigeria> on 22nd February, 2026.
- World Bank Group (2022). What You Need to Know About Food Security and Climate Change. Retrieved from www.worldbank.org/en/news/features.com on 20th February, 2025.
- World Health Organization (2023). Climate Change. Retrieved from who.int/news-room/fact.com on 20th February, 2026.
- Zhang, W., Kato, E. Bianchi, F., Bhandary, P., Gort, G., Van, W. and Werf, D. (2018). Farmers' perceptions of crop pest severity in Nigeria are associated with landscape, agronomic and socio-economic factors. *Journal of Agriculture, Ecosystems and Environment*, vol. 259, pp. 159-167. Retrieved from <https://doi.org/10.1016/j.agee.2018.03.004> on 19th January, 2026.