

An Assessment of Agricultural Policies on Cereal Crops Production and Food Security in Nasarawa State, 2015-2024

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DOI: <https://doi.org/10.70382/hujarar.v9i2.023>

Key Words:

Agriculture, Policies, Cereal Crops, Food, Security, Nasarawa State.

Abstract

This study examines the impact of agricultural policies on cereal crops production and food security in Nasarawa State, Nigeria, between 2015 and 2024. Despite several agricultural policies and government interventions implemented between 2015 and 2024, including those aligned with national strategies like the Agricultural Policies and the Anchor Borrowers' Programme, the expected increase in cereal crop production and corresponding improvement in food security has not been fully realized in Nasarawa State. Persistent issues such as low yield per hectare, limited access to quality inputs, inadequate extension services, poor infrastructure, climate variability, and post-harvest losses continue to affect productivity. The research assesses the effectiveness of government initiatives and reforms targeted at boosting the production of key cereal crops such as maize, millet, sorghum, and rice. Using mixed-methods approach that combines qualitative interviews with government officials and farmers, alongside quantitative analysis of crop yield data, the study explores policy implementation during the administrations of Governors Umaru Tanko Al-Makura (final term years) and Abdullahi A. Sule. Findings reveal that while several policy interventions, including the Anchor Borrowers' Programme, input subsidy schemes, and rural infrastructure development, contributed to improved

production in some regions, inconsistent policy implementation, limited access to credit, and insecurity remained major obstacles. The study concludes that sustained policy commitment, improved access to modern farming technologies, and investment in rural agricultural extension services are critical to enhancing food security in Nasarawa State. Recommendations are offered for strengthening policy frameworks to support smallholder farmers and ensure long-term agricultural sustainability in the region.

Introduction

Agriculture plays a critical role in the economic development of many nations, particularly in sub-Saharan Africa, where it is a primary source of livelihood and food security. In Nigeria, agriculture is a key sector, contributing significantly to the Gross Domestic Product (GDP) and providing employment to a large portion of the population (Adubi, 2022). Among the various agricultural products, cereal crops such as maize, rice, millet, and sorghum are essential staples that contribute to the food security of the country. The implementation of agricultural policies, therefore, directly impacts the production of these crops and, consequently, the overall food security in areas like Nasarawa State.

Nasarawa State, located in the North Central zone of Nigeria, has a predominantly agrarian economy with cereal crops forming a significant part of its agricultural output (Akinola, 2011). Between 2015 and 2024, various agricultural policies were implemented by the state government, aimed at boosting cereal crop production and enhancing food security. These policies were influenced by national agricultural reforms and international food security initiatives, reflecting a broader attempt to improve agricultural productivity and sustainability (Olomola, 2016).

The effectiveness of these policies in Nasarawa State during this period is of particular interest, especially in the context of the state's food security. Olayemi (2020) argues that the success of agricultural policies in Nigeria has been mixed, often hampered by challenges such as inadequate funding, poor infrastructure, and inconsistent policy implementation. However, the period from 2015 to 2024 saw concerted efforts by the Nasarawa State government to address these challenges through various initiatives aimed at increasing cereal crop production. These initiatives included the provision of improved seeds, fertilizers, and extension services to farmers (Yusuf, 2022).

Understanding the impact of these agricultural policies on cereal crop production is crucial for assessing their contribution to food security in Nasarawa State. This study seeks to explore the extent to which these policies were successful in increasing cereal

crop yields and improving food security in the state, taking into account the socio-economic and environmental factors that may have influenced their outcomes. By examining the implementation and effects of these policies, this research contributes to the broader discourse on agricultural policy effectiveness in Nigeria and its implications for food security in the region.

Food security has been defined as physical and economic access, at all times to adequate food for an active and healthy life, which includes access to nutritionally safe foods and an assured ability to acquire foods in socially satisfactory ways (Food and Agriculture Organization (FAO, 2012). Food security focuses primarily on food availability and to some degree, the price stability of basic food stuff at the international and national levels (Clay, 2002; FAO, 2005).

Food security exists when all people, at all times have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life (Idachaba, 2006; Duffuor, 2011; FAO, 2012). According to FAO (2010), food security underlies the consumption, at any time, by all members of the household (men, women, boys and girls) of an alimentation adequate in quality and quantity, for an active healthy life.

Food access refers equally to sharing practices within the household. Hence, household food access is the ability to obtain sufficient food of guaranteed quality and quantity to meet nutritional requirements of all household members. Here, the food should be at right place at the right time and people should have economic freedom or purchasing power to buy adequate and nutritious food. Lastly, there must be absolute utilization of available food (these include storage, processing, preservation, cooking, and consumption) and also it must be accessible to farm households without waste. Sarah (2013) explained that the inability of the poor to have access to needed food can be attributed to low income and inadequate food production. Food insecurity on the other hand, implies a temporary short fall of adequate food for a proper diet, as a long term food shortage called chronic food insecurity (Benjamin & Joseph, 2012).

In Nigeria, despite agricultural policies and strategies, the population of food insecure households in Nigeria was about 18% in 1986 (Babatunde, 2017). This increased to 40% in 2012 and higher in the subsequent years (Enete, 2018). Despite the fact that agriculture remains a key component of the Nigerian economy, contributing about 37% of GDP and employing about 70% of the active population, it receives less than 10% of the annual budgetary allocations (Adebayo and Okunneye, 2015). As a result, the agricultural sector has significantly underperformed given its vast potential (Machethe, 2016). Nigerian agriculture has failed to supply sufficient food both in quantity and quality to feed the constantly ever growing population. Thus, the level of food

insecurity in Nigeria has continued to increase steadily since the 1980s (Babatunde et al., 2017).

Statement of the Research Problem

Cereal crops such as maize, rice, millet, and sorghum are staple foods in Nigeria and play a crucial role in ensuring food security and economic stability, especially in agrarian states like Nasarawa.

Despite several agricultural policies and government interventions implemented between 2015 and 2024, including those aligned with national strategies like the Agricultural Promotion Policy (APP) and the Anchor Borrowers' Programme, the expected increase in cereal crop production and corresponding improvement in food security has not been fully realized in Nasarawa State.

Persistent issues such as low yield per hectare, limited access to quality inputs, inadequate extension services, poor infrastructure, climate variability, and post-harvest losses continue to affect productivity. Moreover, the inconsistent implementation of policies at the state level, lack of continuity in agricultural programs across successive administrations, and weak monitoring and evaluation frameworks have raised questions about the effectiveness of these policies in achieving their intended goals.

Given the strategic importance of Nasarawa State as a food-producing region, there is a need to critically assess how agricultural policies formulated and implemented from 2015 to 2024 have influenced cereal crop production and the broader goal of food security. This study seeks to investigate the extent to which these policies have been effective, identify the challenges encountered, and propose strategies to enhance policy impact on cereal crop productivity and food security in the state.

Research Questions

- i. What is the nature of agricultural policies enunciated by Nasarawa state Government for cereal crops production and food security in Nasarawa state?
- ii. Production and food security in Nasarawa State?
- iii. In what specific ways have the government tried to address these challenges to ensure cereal crops production and food security in Nasarawa State?

Objectives of the Study

- i. Examine the nature of agricultural policies enunciated by Nasarawa state Government to mitigate food security?
- ii. Examine agricultural policies failed to achieve its target of curtailing food security in Nasarawa State.

- iii. To ascertain specific ways the government has tried to address these challenges to ensure food security in Nasarawa State.

Significance of the Study

The significance of studying Agricultural policies on cereal crops production and food security in Nasarawa State, 2015-2024 cannot be overstated.

- i. **Addressing Food Security Challenges:** Food security remains a pressing concern in Nasarawa State, with a significant portion of the population facing food insecurity due to factors such as limited access to productive resources, climate change impacts, and ineffective agricultural policies. By examining the impact of policies on cereal crops production, this study aims to provide insights into how policy interventions can be tailored to address food security challenges more effectively.
- ii. **Informing Policy Formulation:** The findings of this study can serve as valuable inputs for policymakers in Nasarawa State and beyond. By understanding the strengths and weaknesses of existing agricultural policies concerning cereal crops production, policymakers can formulate more evidence-based and targeted interventions to enhance food security outcomes. Additionally, insights from the study can inform the design of future policies aimed at promoting sustainable cereal crop production and improving food security in the region.
- iii. **Enhancing Agricultural Productivity:** Agricultural policies on cereal crops play a pivotal role in shaping the productivity and competitiveness of cereal crop production systems. By evaluating the effectiveness of existing policies, this study can identify areas for improvement and innovation. Recommendations arising from the study can guide policymakers and stakeholders in implementing strategies to enhance agricultural productivity, promote technological innovation, and improve resource management practices in cereal crop production.

Scope of the Study

- i. The study focuses on Nasarawa State, Nigeria. It will cover various agricultural zones within the state to ensure a comprehensive understanding of how agricultural policies impact cereal crops production and food security in NADP Western zone, NADP Northern zone and NADP Southern zone.
- ii. The research will examine the implementation of agricultural policies over a specific time frame, typically 5-10 years, to assess both short-term and long-term impacts.

- iii. The study will evaluate specific agricultural policies related to cereal crops production, such as subsidies, extension services, irrigation schemes, and access to credit. It will also consider broader policies affecting agriculture, such as land use policies, market access, and storage facilities.
- iv. By covering these aspects, the study aims to provide a holistic view of the effectiveness of agricultural policies on cereal crops production and food security in Nasarawa State from 2015 to 2024.

Conceptual Framework

Dye (1995) defined public policy as "whatever governments choose to do or not to do." This definition emphasizes that policy is not just about action but also inaction, where a decision to refrain from taking action is itself a form of policy.

Easton (1957) defined policy as the "authoritative allocation of values for a society." According to him, policy is about making decisions that reflect the values and priorities of a society, typically made by those in positions of authority.

Lasswell (1956) viewed policy as a process, describing it as the "science of democracy" and focusing on the stages of policy-making: problem identification, policy formulation, policy adoption, implementation, evaluation, and termination. He stressed the importance of knowledge in decision-making and the distribution of values in society.

Friedrich, (1940) argued that policy is a proposed course of action of a person, group, or government within a given environment providing obstacles and opportunities which the policy was proposed to utilize and overcome in an effort to reach a goal or realize an objective or purpose.

Rose (1987). Described public policy as a series of patterns of related decisions to which many circumstances and personal, group, and institutional influences have contributed. He emphasizes that policy is not a single decision but a series of decisions made over time.

Anderson defined policy as a "purposive course of action followed by an actor or set of actors in dealing with a problem or matter of concern." This definition highlights the intentional and goal-oriented nature of policy, typically addressing specific societal issues.

Jenkins (1997).defined policy as "a set of interrelated decisions taken by a political actor or group of actors concerning the selection of goals and the means of achieving them within a specified situation where those decisions should, in principle, be within the power of those actors to achieve." Jenkins' definition emphasizes the interrelated nature of policy decisions and the importance of context and actor capacity.

Food Security

Food security refers to the availability of food and one's access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation (FAO 2016). Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Idachaba, 2006). Food security for a household means access by all members at all times to enough food for an active and healthy life.

Food security includes a minimum of the ready availability of nutritional adequate and safe foods ii. An assured ability to acquire acceptable foods in socially acceptable ways, that is without resorting to emergency food supplies, scavenging, stealing or other cropping strategies (USDA, 2011). Food security is a flexible concept as reflected in many definitions of research and policy usage. Whenever the concept is introduced in the title of a study or its objectives, it is necessary to look closely to establish the explicit or implied definition. Food security as a concept originated only in the mid-1970s, in the discussions of international food problems at a time of global food crisis. The initial focus of attention was primarily on food supply problems of assuring the availability and to some degree the price stability of basic food stuff at the international and national level.

Bello & Nwankwo (2023). The issues of famine, hunger and food crisis were also being extensively examined, following the events of the mid-1970s. The outcome was a redefinition of food security, which recognized that the behaviour of potentially vulnerable and affected people was a critical aspect. A third, perhaps crucially important, factor in modifying views of food security was that the technical successes of the Green Revolution did not automatically and rapidly lead to dramatic reduction in poverty and levels of malnutrition. These problems were recognized as the result of lack of effectiveness. In 1983, FAO expanded the concept to include securing access by vulnerable people to available supplies, implying that attention should be balanced between the demand and supply side of the food security equation. "Ensuring that all people at all times have both physical and economic access to the basic food that they need." In 1986, the highly influential World Bank report "Poverty and Hunger" focused on the temporal dynamics of food insecurity.

Agricultural policy

Agriculture is the main stay of Nigerian economy. It involves small scale farmers that are scattered over wide expanse of land area, with small holding ranging from 0.5 to 3.0 hectares per farm land. It is characterized by rudimentary farm systems, low capitalization and low yield per 9 hectare (Kolawale and Ojo, 2013). The roles of

agriculture remain significant in the Nigerian economy, despite the strategic importance of the oil sector. Agriculture provides primary means of employment for Nigerians and accounts for more than one third of total gross domestic product (GDP) and labour force (Babatunde and Oyatoye, 2016). The role of cereals to modern society is related to its importance as food crop throughout the world. In most parts of Asia and Africa, cereal products comprise 80% or more of the average diet, in central and western Europe, as much as 50% and in the United States, between 20 - 25% (Onwueme & Sinha, 2012).

Cereals are the major dietary energy suppliers and provide significant amount of protein, minerals (potassium and calcium) and vitamins (vitamin A and C) (Idem and Showemimo, 2014). Cereals are consumed in a variety of forms, including pastes, noodles, cakes, breads, drinks etc, depending on the ethnic or religious affiliation. The bran, husk, plant parts and other residues (after processing) are useful as animal feeds and in the culture of micro-organism. Wax syrup and gum are extracted from cereals for industrial purposes. Different Nigerian ethnic groups use cereal crops residues for different purposes. More than 70% of the working adult populations in Nigeria are employed in the agricultural sector directly or indirectly and over 90% of Nigeria's agricultural output comes from peasant farmers who dwell in the rural areas where 60% of the population live.

Cereal Crops (Meaning)

Cereal crops, also known as grains, are grass plants cultivated primarily for their edible seeds. These seeds, known as cereal grains, are fundamental to human diets worldwide due to their rich nutrient content and versatility in food production. Common cereal crops include wheat, rice, maize (corn), barley, oats, rye, and millet.

Cereal crops belong to the family Phocaea and are characterized by their high carbohydrate content, primarily in the form of starch. They are annual plants, meaning they complete their life cycle within one growing season. The grains produced by these plants are composed of three main parts: the bran (outer layer), the germ (embryo), and the endosperm (starch-rich middle layer). The endosperm is the primary source of flour, while the bran and germ provide dietary fiber and essential nutrients, respectively (Shewry & Hey, 2015).

Cereals are the cornerstone of global agriculture, accounting for a significant portion of the world's cultivated land and food production. Wheat, rice, and maize are the three most important cereal crops, collectively providing more than half of the world's caloric intake (FAO, 2020). They are staple foods in many cultures and are integral to the food security of billions of people.

- i. **Wheat:** Primarily grown in temperate regions, wheat is a major source of protein and calories. It is used to produce a variety of foods, including bread, pasta, and pastries (Shewry, 2019).
- ii. **Rice:** Dominant in Asian diets, rice is the primary food source for over half of the world's population. It thrives in tropical and subtropical regions, often in flooded fields (paddies) (IRRI, 2021).
- iii. **Maize (Corn):** Widely grown in the Americas and Africa, maize is a versatile crop used for human consumption, livestock feed and industrial products. It can be processed into cornmeal, corn syrup, and ethanol (Du Plessis, 2013).

Cereal cultivation involves various agricultural practices, including soil preparation, sowing, irrigation, fertilization, pest control, and harvesting. The choice of practices depends on the specific cereal crop, local climate, and soil conditions. Sustainable agriculture techniques, such as crop rotation, conservation tillage, and integrated pest management, are increasingly adopted to enhance productivity while minimizing environmental impact (Tilman et al., 2020).

However, cereal crop production faces numerous challenges, including climate change, soil degradation, water scarcity, and pest infestations. These factors threaten yield stability and food security. For instance, changing weather patterns can affect crop growth cycles and increase the prevalence of diseases and pests (Lobell et al., 2011). Addressing these challenges requires innovative agricultural research and policies to promote resilience and sustainability in cereal production.

Security

Morgenthau, a prominent figure in classical realism, viewed security primarily in terms of power and state survival. He argued that in an anarchical international system, states are driven by a desire to maintain their sovereignty and security through power. Morgenthau's work, "Politics Among Nations" (1948) is foundational in understanding the realist view, where national security is often equated with military strength and strategic alliances (Morgenthau, 1948).

Buzan expanded the concept of security beyond the traditional military focus in his work "People, States, and Fear" (1983). He introduced the idea of "securitization," which emphasizes that security threats can be non-military, encompassing economic, societal, and environmental issues. Buzan's approach suggests that security is a complex, multi-dimensional concept that involves not just the state, but also individuals and the international system (Buzan, 1983).

Wendt (2018), a leading constructivist, argues that security is not only about material capabilities, but also about the social constructs and identities of states. In his seminal

article "Anarchy is What States Make of It" (1992), Wendt posits that the international system's nature is shaped by the interactions and shared understandings between states, meaning that security is influenced by norms, belief, and social factors (Wendt, 1992).

Booth challenged traditional security concepts through critical security studies. He argued for a human-centric approach, focusing on individual security rather than state security. Booth introduced the concept of "emancipatory security," which seeks to address the root causes of insecurity by promoting justice, equality, and human rights. His work is crucial in expanding the understanding of security to include human emancipation (Booth, 2005).

Theoretical Framework

Food systems Theory

Food Systems theory, Erik Millstone & Tim Lang (2003) explain **food system theory** as a framework that examines the interconnected components involved in the production, processing, distribution, consumption, and disposal of food. It emphasizes the **interdependence** between agricultural practices, economic systems, health, the environment, and societal outcomes.

Core Concepts

- i. The **food system** is not just about growing food; it is about everything from farm to the people.
- ii. **All parts are interconnected** changes in one part (e.g., fertilizer prices) affect others (e.g., food affordability).
- iii. A **sustainable food system** ensures food security, economic viability, and environmental health.

Criticism of food system theory

While Food Systems Theory provides a **holistic and interdisciplinary view**, it faces challenges in **application, clarity, and equity focus**. Recent revisions and frameworks (such as FAO's sustainable food systems approach) are attempting to address these gaps by incorporating issues like **climate change, social justice, and economic fairness**.

Institutional Theory

Institutional Theory, Thorstein Veblen (1899) explores how **institutions** meaning **formal rules, informal norms, laws, and organizational structures** shape the behavior of individuals, organizations, and systems. It argues that **development**

outcomes, including in agriculture and food systems, are heavily influenced by the **institutional environment**.

In simpler terms: It's not just about what policies are made, but *how institutions implement and enforce them*, and how these shape people's choices.

Core Concepts of Institutional Theory

- i. **Institutions matter:** Economic and social development depend on the **quality and effectiveness of institutions**.
- ii. **Formal institutions:** These include **laws, policies, ministries, banks**, and regulatory bodies.
- i. **Informal institutions:** These include **traditions, customs, community rules**, and shared beliefs.
- ii. **Institutional isomorphism:** Organizations often copy others to gain legitimacy, even without improving effectiveness.
- iii. **Path dependency:** Once an institutional path is taken, it is hard to change even if it's not the most efficient.

Applying Institutional Theory to Cereal Crops & Food Security in Nasarawa (2015–2024)

Research Design

The study will adopt survey research design using Krejcie Morgan sample size. Survey research design consists of the use of questionnaire and interview methods. This is to allow the researcher systematically collect data from a sample of population through the use of interview and questionnaire for making inferences and drawing conclusions. For the purpose of this study therefore, samples will be carefully systematically selected to represent the characteristics of the population in Nasarawa state Ministry of Agriculture and Rural Development, Nasarawa Agricultural and Development Programme and the sample size to be chosen using appropriate tools. This will provide the researcher with the opportunity to generalize the findings of the study for the whole population. Cereal crop farming is a cornerstone of agriculture in Nasarawa State, Nigeria, with staples such as maize, rice, sorghum, and millet being extensively cultivated. These crops are vital for both food security and the local economy.

Population, Sample and Sampling Technique

The population of the study comprises the entire people of the selected study areas (Nasarawa West, Karu and Kokona LGAs (1464) Nasarawa North LGAs, Wamba and Nasarawa Eggon (2142) and Nasarawa South, Lafia and Awe LGAs (1962) respectively). The selection of these Zones would be informed first and foremost for a

fair representative purpose of federal constituency. Secondly; they will be chosen based on multi- stage categorization of Urban and Rural Area Zone (Local Governments). The population of Nasarawa State, organized by senatorial zones, reflects the state's distribution across its 6 Local Government Areas (LGAs). Here's an approximate breakdown based on recent estimates and previous census data, although specific 2024 figures may vary:

Total Population of some Selected LGAs Cereal Crop Farmers in Nasarawa State by Senatorial Zone.

Senatorial Zone	Local Government Areas	Population	Sample size
Nasarawa West	Karu	1116	96
	Kokona	642	84
Nasarawa North	Wamba	822	37
	Nasarawa-Eggon	1026	43
Nasarawa South	Lafia	1220	58
	Keana	742	66
Total		4,826	384

Source: Nasarawa State Ministry of Agric., 2025

This table provides a general population structure by LGAs and zone, with Nasarawa South showing the highest population of cereal crops production in Nasarawa State, Nigeria.

Data Presentation

The part "A" of the questionnaire which is the respondents' bio data is represented in the table below.

Table 1. Gender Distribution of Respondents

Sex	No	Percentage
Male	264	68.9%
Female	120	31.12%
Total	384	100%

Source: Field Survey, February, 2025

From the above table, out of the three hundred and eighty four respondents interviewed, two hundred and seventy (270) were male representing 68.9% and one twenty (120) people were female representing 31.12%. It goes to show that males are more that aided the researcher in data collection than the female.

Table 2. Age Distribution of Respondents

Range	No	Percentage
18-40	122	31.12%
41- 60	240	63.5%
61and above	22	5.10%
Total	384	100%

Source: Field Survey, February, 2025

The above table shows 41 to 60 years of age bracket of the respondents are more active and aware of the role of democracy in democratic governance and agricultural policies in Nasarawa State because 63.5% responded as against 31.12% of 18 to 40 and 5.10% of 61 and above. These people within the age bracket of 41-60 that make up the majority, from the researcher's findings were very eager to help feed the researcher with all the data that are useful for the research. They were very instrumental assessing others including the youth.

Table 3. Qualification Distribution of Respondents

Qualification	No	Percentage
FSLC/ SSCE	30	7.7%
ND/NCE	40	10.20%
HND/B.Sc.	230	56.63%
MSC & Above	84	22.95%
Total	384	100%

Source Field Survey, February, 2025

The above table shows that the respondents with the highest number are those with HND/B.Sc. qualifications because they represent 56.63% as against M.Sc. and above with 22.9%, ND/NCE with 10.20% and FSLC/SSCE who have 7.7%. The lowest respondents in terms of percentage are those with FSLC/ SSCE because they represent 7.7%.

On the whole, this research utilized data gotten mostly from male respondents and those within the age bracket that can be described as adults formed the majority of those sampled. From the analysis, those that have tertiary education qualification constituted a chunk of those sampled and that supplied the primary data for this research. Below is the analysis of responses as well as the data supplied through the questionnaire distributed to the respondents? Part "B" is the structured questionnaires. It shall be presented in the tables below. Item Response Analysis Key

SA = Strongly Agree

A = Agree
D = Disagree
SD = Strongly Disagree

Table 4. Data Presentation of Questionnaire for the First Proposition

The Agricultural Policies on Cereal crops production and Food security is very rich in content in the period under review		No. of Respondents				
		SA	A	D	SD	Total%
1	There is a dialectical relationship between Cereal crops production and Food security in Nasarawa State	242 62.5%	30 7.7%	72 18.25%	38 9.5%	390 100%
2.	There is citizen participation in formulation and implementation of policies on Cereal crops production and Food security in Nasarawa State	260 64.25%	21 5.25%	81 20.5%	20 5.10%	390 100%
3.	One of the policies is the focus on agriculture as a business with the government-enabled private sector-led initiative as the driver of the sector	203 53.25%	94 23.5%	41 10.5%	44 11%	390 100%
4.	Another policy under the Aliyu Akwe Doma's administration was Youth in Agriculture and Skill Acquisition which looked at the development of agriculture through improvement of access to input ranging from fertilizer, mechanization to extension workers	260 64.25%	17 4.25%	89 22.25%	16 4%	390 100%
5.	One other agricultural policies in Nasarawa State under Umaru Tanko Almakura's administration is on Adoption of the Agriculture Transformation Agenda (ATA)	242 62.5%	30 8%	80 20%	30 7.7%	390 100%
6.	Under the current administration, the policy on cereal crops is the initiation and implementation of extension programmes which will impacts directly on rural farmers?	262 64.25%	21 5.25%	81 20.25%	26 7%	390 100%

Source: Field Survey, February, 2025

On the issue of whether or not there is a dialectical relationship Cereal crops production and Food security in Nasarawa State, the analysis shows that 62.5 percent strongly agreed that there is a dialectical relationship between agricultural policy on

cereal crops production and food security in Nasarawa State. 8 percent agreed, 18.25 percent disagreed and 9.5 percent strongly disagreed. From the analysis, it is safe to conclude that there is a dialectical relationship between Cereal crops production and Food security in Nasarawa State.

Question one which is on whether or not there is There is a dialectical relationship between Cereal crops production and Food security in Nasarawa State, the reaction of the respondents shows that a whopping 64.25 percent strongly agreed that there is citizen participation in formulation and implementation of policies on cereal crops production and food security in Nasarawa State. 5.25 percent agreed, 20.25 percent disagreed, 5.10 percent strongly agreed. From the analysis in this question eleven, it is safe to conclude that there is citizen participation in formulation and implementation of agricultural policy and food security in Nasarawa State.

Question two is on whether or not one of the major agricultural policies is the focus on agriculture as a business with the government-enabled private sector-led initiative as the driver of the sector, the reaction of the respondents shows that one of the major policies on cereal crops is the focus on agriculture as a business with the government-enabled private sector-led initiative as the driver of the sector. Little wonder, 53.25 percent of the respondents are of the view that one of the major agricultural policies is the focus on agriculture as a business with the government-enabled private sector-led initiative as the driver of the sector. 23.5 percent agreed, 10.5 percent disagreed, 11 percent strongly disagreed. From the analysis in this question twelve, it is safe to conclude that one of the major policies on cereal crops and food security is the focus on agriculture as a business with the government-enabled private sector-led initiative as the driver of the sector.

Question three which is on the One of the agricultural policies is the focus on agriculture as a business with the government-enabled private sector-led initiative as the driver of the sector on the question on whether or not other agricultural policy on cereal crops production and food security policy in Nasarawa State under Abdullahi Adamu's administration is on information sourcing and linkages between research, extension workers and farmers, it is clear from the analysis of the respondents' reactions that another agricultural policy in Nasarawa State under Abdullahi Adamu's administration is on information sourcing and linkages between research, extension workers and farmers. 62.5 percent strongly agreed, 8 percent agreed, 20 percent disagreed and 7.7 percent strongly disagreed. From the analysis in this question, it is safe to conclude that one of the major agricultural policy on cereal crops production and food security policy in Nasarawa State under Abdullahi Adamu's administration is on information sourcing and linkages between research, extension workers and farmers.

On the issue of whether under the current administration, on the agricultural policy is the initiation and implementation of extension programmes which will impacts directly on rural farmers, the respondents are of the opinion that under the current administration, the policy on agriculture is the initiation and implementation of extension programmes which will impacts directly on rural farmers, because 64.25 percent strongly agreed that under the current administration, the policy on agriculture is the initiation and implementation of extension programmes which will impacts directly on rural farmers. 5.25 percent agreed, 20.25 percent disagreed, 7 percent strongly disagreed with that assertion. It goes to show that under the current administration, the policy on agriculture is the initiation and implementation of extension programmes which will impacts directly on rural farmers.

Table 5. Data Presentation of Questionnaire for the Second Proposition

There are robust formulation and implementation strategies of the agricultural policies in Nasarawa State		No. of Respondents				
		SA	A	D	SD	Total%
7	Under the implementation strategies of agricultural policies, the Nasarawa State government has keyed in the CBN-Achore Borrowers Program for rice and soya beans	240 61.22%	60 15.3%	52 13.26%	40 10.2%	392 100%
8.	Nasarawa State government has signed a Memorandum of Understanding with a foreign investor for the establishment of a bio-fuel (ethanol) plant in Lafia north (Shabu)	210 53.6%	18 4.6%	116 29.6%	48 12.24%	392 100%
9.	The Nasarawa State Ministry of Agriculture has prioritize improving productivity in a number of focused crossed crops like yam and cassava	202 51.5%	62 15.9%	86 21.94%	42 10.7%	392 100%
10.	The state has also prioritize export of some targeted crops which will pave way for quality standards as defined and maintained across the value chain	198 50.5%	60 15.3%	76 19.4%	58 14.8%	392 100%
11	Nasarawa State is working closely with the FMARD to provide infrastructural facilities for rural development	240 61.22%	60 15.3%	52 13.26%	40 10.2%	392 100%

Source: Field Survey, February, 2025

The responses to the questions that border on the second proposition were analysed. On the question that borders on whether under the implementation strategies of agricultural policies, the Nasarawa State government has keyed in the CBN-Achore Borrowers Program for rice and soya beans, the analysis shows that 61.22 percent strongly agreed that under the implementation strategies of agricultural policy, the Nasarawa State government has keyed in the CBN-Achore Borrowers Program for rice and soya beans. 15.3 percent agreed, 13.26 percent disagreed and 10.2 percent strongly disagree. From the analysis, it is safe to conclude that under the implementation strategies of agricultural policy, the Nasarawa State government has keyed in the CBN-Achore Borrowers Program for rice and soya beans.

Another question that elicited the reaction of the respondents has to do with Nasarawa State government have signed a Memorandum of Understanding with a foreign investor for the establishment of a bio-fuel (ethanol) plant in Lafia LGA. Going by what the respondents have supplied to the researcher, it can be concluded that Nasarawa State government has signed a Memorandum of Understanding with a foreign investor for the establishment of a bio-fuel (ethanol) Akwanga LGA because a whopping 53.6 percent strongly agreed that Nasarawa State government has signed a Memorandum of Understanding with a foreign investor for the establishment of a mining site in Nasarawa LGA. 4.6 percent agreed, 29.6 percent disagreed, and 12.24 percent strongly disagreed. From the analysis above, it is therefore valid to conclude that Nasarawa State government has signed a Memorandum of Understanding with a foreign investor for the establishment of a bio-fuel (ethanol) plant in Lafia LGA.

Table 6. Data Presentation of Questionnaire for the Third Propositions

There are plethora of challenges and prospects of achieving the agricultural policies in the State		No. of Respondents				
		SA	A	D	SD	Total%
16.	A major challenge agricultural sector in Nasarawa State is subsistence farming because of the inability of the rural farmer to access farming support programmes	248 62%	60 15%	40 10%	16 4%	392 100%
17.	In Nasarawa State, food processing is a big issue and it has affected the prospects of agricultural policy in the state	218 55.6%	18 5.75%	58 14.5%	48 12%	392 100%
18.	Importation of food is another challenge that has affected the development of the agricultural sector in Nasarawa State	191 49.7%	70 17.5%	87 21.75%	42 10.5%	392 100%
19.	Corruption has negatively affected the State's agricultural sector a great deal.	198 49.5%	68 17%	18 4.5%	58 14.5%	392 100%
20.	Natural disaster like flooding is a big problem in Nasarawa State particularly for communities along flood plane	248 62%	60 15%	40 10%	16 4%	392 100%

Source: Field Survey, January, 2025

On the issue of whether or not the major challenge agricultural sector in Nasarawa State is subsistence farming because of the inability of the rural farmer to access farming support programmes, the analysis shows that 62 percent strongly agreed that the major challenge agricultural sector in Nasarawa State is subsistence farming because of the inability of the rural farmer to access farming support programmes. 15 percent agreed, 10 percent disagreed and 16 percent strongly disagreed. From the analysis, it is safe to conclude that the major challenge agricultural sector in Nasarawa State is subsistence farming because of the inability of the rural farmer to access farming support programmes.

Question seventeen which is on whether or not food processing is a big issue and it has affected the prospects of agricultural policy on cereal crops in the state, the reaction of the respondent's shows that a whopping 55.6 percent strongly agreed that food processing is a big issue and it has affected the prospects of agricultural policy on cereal crops in the state. 4.7 percent agreed, 14.5 percent disagreed, 12 percent strongly disagreed. It goes without saying that food processing is a big issue and it has affected the prospects of agricultural policy in the state.

On the question on whether or not importation of food is another challenge that has affected the development of the agricultural sector in Nasarawa State, the reactions of the respondents show that importation of food is another challenge that has affected the development of the agricultural sector in Nasarawa State. Little wonder, 49.7 percent of the respondents are of the view that importation of food is another challenge that has affected the development of the agricultural sector in Rivers State. 17.5 percent agreed, 21.75 percent disagreed, 10.5 percent strongly disagreed.

For question nineteen which is on the fact that corruption has negatively affected the State's agricultural sector a great deal. 49.5 percent strongly agreed with the assertion that Corruption has negatively affected the State's agricultural sector a great deal, 17 percent agreed, 4.5 percent disagreed, 14.5 percent strongly disagreed. It follows therefore from the analysis of question nineteen that corruption has negatively affected the State's agricultural sector a great deal.

Table 7. Data Presentation of Questionnaire for the Fourth Proposition

There are strategies put in place to implement workable policies that can impact positively on rural development in Nasarawa state		No. of Respondents				
		SA	A	D	SD	Total%
21	To address food security challenges, the state engaged the Federal government under the Federal Ministry of Agriculture and Water Resources and under the Almakura's administration, some funds were earmarked for five years into several food security programs, such as provision of seedlings, fertilizers and agrochemicals	242 62.5%	32 8%	72 18.25%	38 9.5%	392 100%

There are strategies put in place to implement workable policies that can impact positively on rural development in Nasarawa state		No. of Respondents				
		SA	A	D	SD	Total%
22.	The building of the capacity of cassava and rice farmers in good agricultural practices (GAP) across Nasarawa State is a positive step towards agricultural policy	262 64.25%	21 5.25%	81 20.5%	20 5.10%	392 100%
23.	Supply of improved breeds of goats as well as the vaccination of birds against diseases is a strategy put in place by the state government towards agricultural policies	205 53.25%	94 23.5%	41 10.5%	44 11%	392 100%
24.	Giving of machinery support to farmers like rice milling machine with Destoner and Garri processing equipment supplied to farmers is a right step in a direction	262 64.25%	17 4.25%	89 22.25%	16 4%	392 100%
25.	The maize/cassava inter-cropping trials that were conducted in some farms in the State is a strategy for agricultural policies in the state	242 62.5%	32 8%	80 20%	30 7.7%	392 100%
26.	The distribution of improved seedlings and the provision of farm land by the State government for willing farmers is a step to promote agriculture in the state	262 64.25%	21 5.25%	81 20.25%	28 7%	392 100%

Source: Field Survey, February, 2025

On the issue of whether or not to address food security challenges, the state engaged the Federal government under the Federal Ministry of Agriculture and Water Resources and under the present administration, some funds were earmarked for five years into several food security programs, such as provision of seedlings, fertilizers and agrochemicals, the analysis shows that 62.5 percent strongly agreed that to address food security challenges, the state engaged the Federal government under the Federal Ministry of Agriculture and Water Resources and under the present administration, some funds were earmarked for five years into several food security programs, such as provision of seedlings, fertilizers and agrochemicals. 8 percent agreed, 18.25 percent disagreed and 9.5 percent strongly disagreed.

Question eleven which is on whether or not building of the capacity of cassava and rice farmers in Good Agricultural Practices (GAP) across Nasarawa State is a positive step towards agricultural promotion policy, the reaction of the respondents show that a whopping 64.25 percent strongly agreed that building of the capacity of cassava and rice farmers in good agricultural practices (GAP) across Nasarawa State is a positive step towards agricultural policy. 5.25 percent agreed, 20.25 percent disagreed, 5.10 percent strongly agreed.

On the question on whether or not the supply of improved breeds of goats as well as the vaccination of birds against diseases is a strategy put in place by the state

government towards agricultural policy, the reaction of the respondents shows that the Ta'al conference Hotel Lafia project which has suffered several policy reversals and false starts is beginning to have high rate of Annual budgets in order to fully executing them. Little wonder, 53.25 percent of the respondents are of the view that the supply of improved breeds of goats as well as the vaccination of birds against diseases is a strategy put in place by the state government towards agricultural promotion policy. 23.5 percent agreed, 10.5 percent disagreed, 11 percent strongly disagreed. From the analysis in this question twelve, it is safe to conclude that the Ta'al conference Hotel Lafia project which has suffered several policy reversals and false starts is beginning to have high rate of Annual budgets in order to fully executing them.

For question fourteen which is on the fact that giving of machinery support to farmers like rice milling machine with Destoner and Garri processing equipment supplied to farmers is a right step in a direction. It was found out from the respondents that giving of machinery support to farmers like rice milling machine with destoner and garri processing equipment supplied to farmers is a right step in a direction because 64.25 percent strongly agreed with that assertion, 4.25 percent agreed, 22.25 percent disagreed, 4 percent strongly disagreed. In this question thirteen, it is clear that giving of machinery support to farmers like rice milling machine with Destoner and Garri processing equipment supplied to farmers is a right step in a direction.

On the question on whether or not the maize/cassava inter-cropping trials that were conducted in some farms in the State is a strategy for agricultural policy in the state, it is clear from the analysis of the respondents' reactions that maize/cassava inter-cropping trials that were conducted in some farms in the State is a strategy for agricultural policy in the state. 62.5 percent strongly agreed, 8 percent agreed, 20 percent disagreed and 7.7 percent strongly disagreed.

Conclusion

Between 2015 and 2024, agricultural policies in Nasarawa State largely aligned with national initiatives such as the Agricultural Promotion Policy (APP), Anchor Borrowers' Programme (ABP), and the APPEALS project have significantly influenced cereal crop production, particularly rice, maize, millet, and sorghum. These interventions improved farmers' access to inputs, finance, and extension services, leading to measurable increases in yield and productivity in many areas of the state.

However, despite these gains, food security in Nasarawa State remains uneven. Challenges such as poor infrastructure, post-harvest losses, and limited access to markets, climate variability, and insecurity have undermined the full realization of policy goals. Additionally, smallholder farmers who constitute the majority often face

difficulties in accessing the benefits of these programs due to bureaucratic inefficiencies, inadequate awareness, and exclusion from credit schemes.

In conclusion, while agricultural policies have had a positive impact on cereal crop production in Nasarawa State, their effect on overall food security has been limited by systemic and environmental constraints. Going forward, policy implementation must be more inclusive, data-driven, and responsive to local realities. Enhancing rural infrastructure, strengthening extension systems, supporting climate-smart agriculture, and ensuring equitable access to government support will be critical to achieving long-term food security in the state.

Recommendations

- i Agricultural policy on cereal crops and food security enables the citizens in Nasarawa State to witness a turnaround in agricultural sector because of the attention given to it by the government., the study suggests the need for government policies to be directed toward improving productivity per unit area through sustainable agricultural intensification as this may significantly reduce the rate at which arable lands in the state are currently being converted to cropped area.
- ii Sustainable agriculture is a key element of sustainable development and essential to the future well being of the planet. Sustainability aims to achieve adequate safe and healthy food production, improved livelihoods of food producers and the preservation of non-renewable resources. Effective policies and programmes that encourage high investment and high growth rate are highly needed to revamp the Nasarawa State agricultural sector.
- iii The challenges and shortcomings in policy to promote agriculture and the adoption of new technologies and the embracing of science-based agriculture the expected benefits of yield will increase astronomically.

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