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Challenges of Implementing Rice Anchor Borrower Programme for Food Security in Kogi State, Nigeria

Ahmed Tijani Yusuf[1], Mohammed Abdullahi Yamma[2] & David S. Jacho[2]

[1]Department of Political Science,
Federal College of Education, Okene, Kogi State
Corresponding author: ahmedtyusuf@gmail.com

[2]Department of Political Science,
Nasarawa State University, Keffi

Abstract

The smallholder rice farmers in Kogi State, Nigeria, are pivotal to national food security and economic stability, yet they face systemic challenges that undermine productivity, despite government policies targeting agricultural revitalization. The Diffusion of innovation theory was employed as theoretical framework and both primary and secondary methods were utilized. This study examines the interplay between federal and state agricultural rice policies—such as the Anchor Borrowers' Programme (ABP) and the persistent obstacles confronting smallholder rice farmers in enhancing food security. Through qualitative review of policy documents and academic literature, the research identifies critical gaps in policy implementation, including dilapidated rural infrastructure and climate vulnerabilities. Findings reveal inefficient government policies in tackling the challenges of food security. The study underscores the urgent need for stakeholder-inclusive reforms and enhanced climate-resilient infrastructure to empower smallholder farmers. By addressing these challenges, policymakers can unlock Kogi State's potential to contribute significantly to Nigeria's rice self-sufficiency goals. While existing studies broadly address agricultural challenges in Nigeria, there is little focus on the unique socio-political and ecological dynamics of Kogi State. On this note, the study's recommendations include effective government policies and localized policy design that enhances food security.

Keywords: Rice policies, smallholder farmers, food security, Diffusion of Innovation Theory, Kogi State.

Introduction

Agriculture remains the backbone of Nigeria's economy, contributing approximately 22% of GDP and employing over 70% of the rural workforce (World Bank, 2023). Rice, a staple food for Nigeria's 220 million people, has seen surging demand due to population growth and urbanization. Despite this, domestic production struggles to meet consumption needs, forcing Nigeria to spend ₦2.3 trillion ($5.1 billion) annually on rice imports (CBN, 2022). This dependency underscores the urgent need to empower smallholder farmers, who produce 80% of Nigeria's food through the Anchor Borrowers Programme (FAO, 2020), to bridge the supply-demand gap.

To revitalize agriculture, successive Nigerian governments have launched policies targeting smallholder rice farmers such as Growth Enhancement Support Scheme (GESS) which was initiated to delivers subsidized fertilizer and seeds to rice farmers via an e-wallet system to reduce input costs (FMARD, 2012). Presidential Fertilizer Initiative (PFI) aimed to ensure affordable fertilizer supply to rice farmers by revitalizing local blending plants (FGN, 2017). Anchor Borrowers' Programme (ABP) which is the target of this research is a Central Bank of Nigeria (CBN) initiative providing low-interest loans, seeds, and fertilizers to farmers (CBN, 2016). There is also, the National Food Security Council (NFSC) intervention which is saddled with the responsibility of implementing policies to boost rice production, including irrigation support, pest control and farmer training (NFSC, 2019). The National Rice Development Strategy, (NRDS) Promoted mechanization and milling infrastructure to reduce import reliance (NERICA, 2010).

Nigeria is the highest producer of rice in Africa followed by Egypt and Madagascar, and 13th in the world. The country moved from producing 2.0MMT of rice in 2007 to almost 3.8MMT in 2018 (Issa, 2023). Rice production systems in Nigeria has grown to approximately 3.7 million hectares of land in the country, covering 10.6 percent of the 35 million hectares of land under cultivation; out of a total arable land area of 70 million hectares, 77 percent of the farmed area of rice was rain-fed, of which 47 percent was lowland and 30 percent upland (Cadoni and Angelucci, 2013). Rice is grown in nearly all the agro-ecological zones in Nigeria.

Nigeria has four rice production systems namely: upland rice, lowland rice, irrigated rice and mangrove/deep water rice production systems (Ogunsimi, Ajayi, Amire & Williams, 2013). In 2017 and 2018, Nigeria's milled rice production averaged 4.5 mmt, and rose to 5.0 mmt (11 per cent increase) in 2019. In 2020, amidst the upsurge of the coronavirus pandemic and the devastating impacts of climate change and insecurity, production decreased to 4.8 mm but later rose to 5.0 mmt in 2021. With this, Nigeria is currently ranked 14th highest rice producer in the global pecking order and the highest producer of the commodity in Africa (Mahmud, Dahiru, Sanusi, Adamu & Usman, 2022).

Kogi State, situated in Nigeria's North Central region, is endowed with fertile land, abundant water resources (including the Niger and Benue rivers), and a tropical climate suitable for rice cultivation. The state is ranked among Nigeria's top 10 rice-producing states, with over 200,000 smallholder farmers engaged in rice farming (Kogi Agricultural Development Project [ADP], 2022). However, productivity remains suboptimal, averaging 2.5 tons per hectare, compared to the national potential of 4–6 tons (FMARD, 2020). This shortfall is attributed to systemic challenges, including fragmented policy implementation, infrastructural decay, and climate vulnerabilities.

To curb the above challenges at the state level, Kogi state adopted and introduced the Anchor Borrower Programme and the Kogi Accelerated Rice Production Programme (KARPP) prioritizing rice production through partnerships with private investors (Kogi State Government, 2016). Despite these efforts, studies reveal persistent gaps between policy objectives and outcomes. For instance, only 15% of Kogi's smallholders accessed ABP loans due to bureaucratic bottlenecks and lack of awareness (Ojo et al., 2023). The Kogi Accelerated Rice Production Programme (KARPP) is similar to the Rice Anchor Borrower programme and it is an initiative of the Kogi State Government under Kogi Agricultural Transformation Agenda. The KARPP which started in December 2011 aims to make the State self-sufficient in rice production

with particular emphasis on irrigated rice production and create wealth for farmers through opportunities in rice processing and export. Information obtained from the State ADP revealed that there were 287 registered farmers' cooperative groups, each comprising of 10 farmers as participants in the KARPP (Abdulazeez, Abdulrahman, and Oladimeji, 2019).

However, while existing studies broadly address agricultural challenges in Nigeria, there is little focus on the unique socio-political and ecological dynamics of Kogi State. Additionally, the role of gender disparities and climate adaptation strategies in shaping rice productivity remains underexplored. This study fills these gaps by critically analyzing how systemic inefficiencies in policy implementation perpetuate poverty among Kogi's smallholder rice farmers. Despite its potential, Kogi State faces challenges such as inadequate infrastructure, limited access to credit, and climate-related risks (flooding and drought). Post-harvest losses remain high due to insufficient storage and processing facilities. Expanding irrigation infrastructure and adopting climate-smart agricultural practices can further enhance rice production. Therefore, strengthening value chains through public-private partnerships can improve market access and farmer incomes which will boost food security in the state.

Empirical Review of Related Literature

The role of government rice policies in enhancing food security

The global food crisis has recently been aggravated by the 2019 Covid pandemic and the ongoing Russian Ukrainian war. Consequently, various countries have embarked on aggressive food security crusades to remedy the situation in order to make food affordable to all. Other factors responsible for global food crisis include climate change, population growth, increased demand for bio-fuels, failure to improve crop yield, high oil prices, leading to increased input loss for producers and traders. The structural problems like under-investment in agriculture and dominance in supply chain of food and agricultural policies sky rocket prices of food.

However, the Nigerian government has implemented several policies to boost rice production, including the Agricultural Transformation Agenda (ATA), Anchor Borrowers' Programme (ABP) National Food Security Programme (NFSP) and many more. Despite its vast agricultural potential, Nigeria faces persistent food insecurity, with over 25 million people experiencing acute hunger in 2023 (FAO, 2023). The government has introduced several policies to address this crisis, but systemic challenges and implementation gaps persist.

Umar and Akintola (2023) in their study, "The role of social protection policies in enhancing food security in Nigeria: An evaluative approach" examine the significant role social protection policies play in enhancing food security in Nigeria. The work evaluates how social protection initiatives, such as cash transfers and food assistance programmes are designed to bolster food security among vulnerable populations in Nigeria. They argue that well-structured social protection systems can significantly mitigate food insecurity by providing vulnerable populations with the necessary resources. Their findings underscore the critical need for integrated social protection measures to effectively combat food insecurity in Nigeria. To them, "social protection policies should be tailored to directly address the unique needs of different demographics" (Umar & Akintola, 2023:5).

According to Akpan and Bassey (2022) in their article "Climate change, food security, and policy responses in Nigeria: Lessons and Prospects," they delve into the intricate relationship between climate change and food security within the Nigerian context. They effectively highlight how the escalating impacts of climate change pose significant threats to agricultural productivity and, consequently, food security in the region. The authors systematically outline the various environmental stressors faced by Nigeria, such as increased temperature, erratic rainfall patterns, and the rising frequency of extreme weather events. These factors not only compromise food production but also threaten the livelihoods of millions of Nigerians who depend on agriculture. They noted that the interplay of these climatic changes with existing socio-economic vulnerabilities exacerbates food insecurity, particularly among marginalized communities.

Oladapo and Kingsley (2021) on their side aim to assess how agricultural policies affect food security in Nigeria. Given the current challenges facing food systems globally, the study addresses a critical issue in Nigeria, where food insecurity has significant socio-economic implications. The authors underscore the importance of effective agricultural policies in improving food availability and accessibility. The researchers employ a mixed-method approach, utilizing both quantitative and qualitative analyses to attain a comprehensive understanding of the policies examined. Surveys and interviews with stakeholders in the agricultural sector provide primary data, augmented by secondary data from government reports and previous studies on food security (Oladapo & Kingsley, 2021).

The findings reveal that certain agricultural policies have positively correlated with improvements in food security indicators, such as food production levels and access to food for vulnerable populations. Specifically, policies aimed at increasing investment in agricultural infrastructure and technology showed significant benefits. However, the authors also identify gaps in policy implementation and the need for cohesive strategies to address food insecurity comprehensively. They concluded that while agricultural policies can play a pivotal role in enhancing food security in Nigeria, their effectiveness often hinges on proper implementation and stakeholder engagement. The study advocates for a more integrated approach to policy formulation that involves input from farmers, economists, and food security experts, to address the multifaceted nature of food insecurity (Oladapo & Kingsley, 2021).

The article by Adeniyi and Afolabi (2020) titled "Food security and government policies in Nigeria: A review of recent literature" provides a detailed examination of the relationship between food security and government policies in Nigeria. It summarizes recent literature and highlights key findings, challenges, and recommendations for improving food security in the country. The authors have effectively synthesized various studies related to food security, identifying trends and gaps in research.

They discuss the complexities of food insecurity in Nigeria, considering factors such as economic conditions, agricultural productivity, and social issues. The paper evaluates various government initiatives aimed at enhancing food security, including agricultural policies, poverty alleviation programmes, and food assistance schemes. They critically analyze the effectiveness of these policies, providing evidence from empirical studies. However, the study point out significant challenges such as inadequate infrastructure, poor investment in agriculture, political instability, and climate change. These factors are presented as barriers to achieving food security in Nigeria.

According to Oni and Olayemi (2019) in their work "Government policies and food security: A focus on Nigeria's import and export regulations," begin by establishing the significance of food security in Nigeria and how government policies can influence agricultural productivity and food availability. They argue that restrictive import regulations were aimed at protecting local farmers, yet these policies often lead to shortages and increased prices for consumers. The local farmers often face challenges such as limited access to inputs and markets due to stringent regulations. A balanced approach, which involves gradual liberalization alongside support for local farmers, could improve food security without undermining domestic production. (Oni & Olayemi, 2019)

Adeyemi, et al (2016) in the African Journal of Agricultural Research explores the impact of government policies on rice production and its influence on food security in Nigeria. The study assesses the effectiveness of current policies and proposes recommendations for improving rice production. Nigeria is a major rice consumer, but domestic production struggles to meet demand, leading to heavy reliance on imports. This dependence on imports creates vulnerabilities in food security, particularly during economic downturns or global price fluctuations. The authors analyze various government policies aimed at boosting domestic rice production, including: price incentives, subsidies and price guarantees to encourage farmers.

However, despite providing valuable insights into the complex interplay between rice production policies and food security in Nigeria by highlighting the need for well-designed and effectively implemented policies to ensure a sustainable and resilient rice sector that contributes to national food security. The scholars failed to provide sustainable agricultural practices that promote environmentally friendly and climate-resilient rice production methods in Nigeria. Additionally, Nigeria's rice sector has been affected by climate change, which has led to unpredictable weather patterns and reduced yields. This has further exacerbated the challenges of achieving food security through rice production. Overall, while the Nigerian government has made efforts to boost rice production and improve food security, the results have been mixed. More needs to be done to address the challenges facing the rice sector and ensure that Nigerians have access to affordable and nutritious food.

Challenges facing the implementation of Anchor Borrower Programme for small scale rice farmers

Belewu et al. (2023) conducted a study to investigate the effects of the ABP on the poverty status of rice farmers in Nigeria. The researchers collected data from a sample of rice farmers who participated in the ABP and compared their poverty levels before and after the intervention. They utilized a mixed-methods approach, combining quantitative analysis of income levels and poverty indicators with qualitative interviews to understand the farmers' experiences with the program. The findings of Belewu et al. (2023) suggest that the ABP has had a positive impact on the poverty status of rice farmers in Nigeria. The researchers reported a significant increase in income levels among the participants, leading to a reduction in poverty rates within the targeted group. Additionally, the farmers expressed satisfaction with the program, highlighting its role in improving their access to credit, inputs, and market linkages.

Previous research has also explored the relationship between agricultural interventions and poverty alleviation via policies and programmes. For instance, Adebayo and Olaniyi (2019) found that targeted interventions, such as the ABP, can contribute to poverty reduction by

enhancing farmers' productivity and income levels. Similarly, Ojo et al. (2020) highlighted the importance of sustainable agricultural practices in poverty alleviation efforts, emphasizing the need for comprehensive support programs that address the various constraints faced by smallholder farmers.

While the study by Belewu et al. (2023) adds to the existing literature on the role of agricultural interventions in poverty alleviation because the findings suggest that the ABP has been effective in improving the livelihoods of rice farmers in Nigeria, underscoring the importance of targeted support programmes in addressing poverty within the agricultural sector. Future research could focus on evaluating the long-term impact of such interventions and exploring strategies to enhance their sustainability. However, this research is of the view that most of the literature on the targeted strategies for addressing challenges of the implementation of ABP are either too inadequate, unsustainable or lack continuity.

On this note, Udemezue (2023), in his work Anchor Borrowers' Programme and Food Security in Nigeria: Achievements, Challenges and Prospects in African Journal of Agricultural Research, 19(3), provides a more recent overview of ABP's achievements and persistent challenges, specifically linking them to food security outcomes. The key challenges identified are high default rates & sustainability threat, insufficient funding and coverage, insecurity and climate change, inadequate storage facilities and poor market access that persisted, leading to spoilage and reduced income/net food availability. Udemezue directly connects these challenges to limited progress on food security. High defaults reduce future funding; insufficient coverage limits widespread impact; post-harvest losses waste food produced; insecurity and climate change directly destroy crops and disrupt supply chains. He argues that without resolving these, ABP's contribution to food security remains sub-optimal.

A study was carried out by Obianefo, et al, (2023) titled 'Technology gap efficiency of small-scale rice processors in Anambra State, Nigeria'. This study measures the technical efficiency of rice production in the Awka North Local Government Area of Anambra State. The study found that farmers in the area operate 15% below their optimal capacity and that several regions in Nigeria were not at par in terms of technical efficiency. The study found that rice production in Nigeria faces several challenges, including inefficient resource allocation, low productivity, poor access to improved varieties, and a heavy reliance on traditional technology.

Nwanna, et al., (2022) in their work on Enhancing food security in Nigeria through sustainable agricultural practices" conceives how sustainable agricultural practices can address the pressing issue of food security in Nigeria. Highlighting the significant challenges faced by the country, including population growth, climate change, and resource degradation. One of the major strengths of this work is its comprehensive analysis of various sustainable practices, such as agroecology, organic farming, and integrated pest management. The authors clearly explain how these methods not only improve agricultural productivity but also promote environmental preservation, thereby contributing to long-term food security. The study effectively establishes the need for innovative and sustainable solutions (Nwanna, et al., 2022).

To complement the above, Olajide, et al. (2022) in the Journal of Food Science and Technology reviews the role of rice production policies in addressing food security challenges in Nigeria. The study evaluates the socio-economic factors influencing rice production and consumption patterns and provides insights into policy interventions to promote sustainable rice production

practices. The work reviews the challenges and prospects of rice value chain development in Nigeria. The authors examine the current state of rice production, processing, and marketing in Nigeria, highlighting the constraints and opportunities in the industry. They identify key challenges such as inadequate infrastructure, poor access to credit, and inefficient supply chain management. The authors also discuss the prospects of rice value chain development in Nigeria, including the potential for increased productivity, improved quality, and enhanced competitiveness (Olajide, et al. (2022).

Adebayo and Akingbohungbe (2020) delve into the critical role of climate-smart agricultural practices in enhancing food security in Nigeria. The authors emphasize that Nigeria, being one of the nations most affected by climate change, faces significant challenges in food production. The paper highlights the need for adaptive strategies to mitigate the adverse effects of climate change while improving agricultural productivity. The study presents a comprehensive overview of climate-smart agriculture (CSA) and its potential benefits. The authors categorize CSA into three main pillars: increasing productivity, enhancing resilience, and reducing greenhouse gas emissions. By integrating these pillars, the authors argue that it is possible to create a sustainable and food-secure environment that responds effectively to climate variability (Adebayo & Akingbohungbe, 2020).

Obih and Baiyegunhi (2018) conducted a comprehensive study on the effectiveness of the Anchor Borrowers Programme (ABP) in Nigeria as a model for financing smallholder rice farmers. The ABP was established by the Central Bank of Nigeria to provide financial support to smallholder farmers, particularly those in the rice sector, with the aim of enhancing food security and promoting agricultural development. Through a thorough review of field-based evidence, the researchers aimed to assess the impact of the ABP on smallholder rice farmers in Nigeria. This study by Obih and Baiyegunhi (2018) highlighted several key findings regarding the ABP model. They found that the program had a positive impact on smallholder rice farmers by providing them with access to credit, inputs, and technical support, which ultimately improved their productivity and income levels. The researchers also noted that the ABP contributed to increased rice production and self-sufficiency in Nigeria, thereby supporting the country's food security goals.

According to Adeogun and Adeogun (2017), in their work titled 'challenges and prospects of rice production in Nigeria' published in the Journal of Agricultural Extension and Rural Development. They delves into the challenges and prospects faced by the rice production sector in Nigeria. The scholars have done a commendable job in thoroughly reviewing the current state of rice production in the country. They have highlighted the various challenges faced by smallholder rice farmers in Nigeria, from lack of access to modern farming techniques and technologies to issues surrounding climate change and environmental degradation but they have failed to take into account the peculiarities of the challenges of rice producers across states of the federation including Kogi state.

The authors discussed the prospects for rice production in Nigeria, shedding light on potential solutions to the challenges faced by the sector. It is evident that they have conducted in-depth research and analysis to present a comprehensive overview of the subject matter. However, it falls short of a good academic research that is adequate in addressing the current challenges facing Nigeria food security. The Anchor Borrowers' Programme (ABP) is a financial intervention programme initiated by the Central Bank of Nigeria to provide credit to smallholder

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farmers, with the aim of boosting agricultural productivity and alleviating poverty levels among farmers.

Theoretical Framework

Diffusion of Innovation Theory

The Diffusion of Innovations (DOI) theory was first developed by sociologist Everett Rogers in his landmark book, "Diffusion of Innovations," published in 1962. Rogers (1962) drew on earlier work by rural sociologists, such as Ryan and Gross (1943), who studied the diffusion of hybrid corn among Iowa farmers. Rogers expanded on this work and developed a comprehensive theory of diffusion that could be applied to a wide range of innovations and contexts. The theory explains how, why, and at what rate new ideas and technology spread within social systems and across cultures and societies.

He synthesized findings from various fields, including sociology, communication, and psychology, to explain the process of innovation adoption. The Diffusion of Innovation theory remains highly relevant in today's quickly changing technological landscape. It is widely applied across various fields, such as social sciences, marketing, public health, education, and technology. Understanding how innovations are adopted can help government, organizations and communicators develop effective strategies for introducing new products and ideas to various audiences. The model identifies different adopter categories—innovators, early adopters, early majority, late majority, and laggards—helping to tailor messages and interventions according to the target groups' characteristics (Rogers, 2003).

The theory laid the foundation for researching the spread of innovations among individuals and groups. It identifies an innovation as any idea, behavior, or object perceived as new by its audience, regardless of its actual age (Rogers, 2003, p. 12). This theory aims to explain the process of adoption and emphasizes three key aspects: qualities that facilitate adoption, the role of peer-to-peer networks, and the importance of addressing diverse user needs (Rogers, 2003). Rogers identified the qualities that make an innovation more likely to be adopted, such as its relative advantage, compatibility, complexity, trialability, and observability. These attributes help reduce uncertainty and predict the adoption rate (Rogers, 2003). The key components of the theory are Innovation: The new idea, technology, or practice that is being introduced. Adopters: The individuals or organizations that adopt the innovation. Diffusion: The process by which the innovation spreads through a social system and communication channels: The means by which information about the innovation is transmitted, such as word of mouth, media, or social networks.

The relevance of the theory is based on the adoption of Agricultural Innovations. The government rice policies aims to enhance food security by encouraging the adoption of improved agricultural practices and technologies among smallholder farmers. According to Diffusion of Innovation theory, the rate of adoption is influenced by factors such as perceived benefits, complexity, and compatibility with existing practices (Rogers, 2003). The programme promotes innovations like high-yield seed varieties and better irrigation techniques that align with these principles.

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Research Methodology

To examine government rice policies and the challenges of smallholder rice farmers in improving food security in kogi state, Nigeria, this research adopts mixed method design. This methodology is designed to provide a robust framework for evaluating the effectiveness of government rice policies in enhancing food security in Kogi State. The approach combines both qualitative and quantitative methods to collect and analyse data. The qualitative aspect of the study involved the use of in-depth interviews and focus group discussions to gain a deeper understanding of the experiences and perceptions of beneficiary and non-beneficiary smallholder rice farmers and other stakeholders.

In-depth interviews were conducted with key stakeholders, including marketers, farmers and others. The interviews were conducted in a private setting, and each interview lasted approximately 5-10 minutes and questionnaires were also administered on the target population. A content analysis of some related secondary materials was also embarked upon to show a clear understanding of the issue under examination to discover gaps in extant literature which this research seeks to fill.

The quantitative aspect of the study involved the use of surveys to collect data from a sample of smallholder rice farmers and other stakeholders. The survey questionnaire was designed to collect data on the demographic characteristics, academic qualifications, sex and others. This approach is preferred to other research designs because of the peculiarity of the study.

Data Presentation and Analysis

Table 1.1 Responses on the effectiveness of government policies in ensuring stable prices for both rice farmers and consumers.

Responses	**Frequency**	**Percentage**
Very effective	85	22%
Not effective	156	40%
Somewhat effective	145	38%
Total	**386**	**100**

Source: Field Survey, January 2025

Table 1.1 above is based on the effectiveness of government policies in ensuring stable rice prices for both farmers and consumers. A significant number of the respondents of one hundred and fifty six (156) at forty percent (40%) of the total responses contend that government policies in ensuring stable rice prices for both farmers and consumers were not effective. This signals dissatisfaction or perceived policy failure. If government policies explicitly aim to stabilize rice prices, a high "Not Effective" response suggests a disconnect between policy intent and outcomes. This was followed by a high “Somewhat Effective” of one hundred and forty five respondents (145) at thirty eight percent (38%). This suggests mixed or moderate satisfaction. Therefore, a large "Somewhat Effective" group may indicate respondents are uncertain or policies have partial success. A wide gap between the two major categories "Very Effective" (22%) vs. "Not Effective" (40%) implies polarization in perceptions. The table also shows that eighty five (85) respondents representing twenty two percent (22%) of the total responses are of

the view that government policies in ensuring stable rice prices for both farmers and consumers are Very Effective.

Table 1.2: Opinion on how often small scale rice farmers experience climate-related challenges, such as flooding, drought, or pests that affect rice farming

Option	**Frequency**	**Percentage**
Almost always	120	31%
Frequently	95	25%
Occasionally	80	21%
Rarely	55	14%
Never	36	9%
Total	**386**	**100%**

Source: Field Survey, January 2025

Table 1.2 above shows respondents' responses on how often they experience climate-related challenges, such as flooding, drought, or pests, which affect their rice farming activities. The highest category goes to 'Almost always' which has the highest frequency of one hundred and twenty (120) representing thirty one percent (31%) and this category dominate the other categories which implies that climate related challenges are a persistent threat to rice farming in Kogi state despite availability of quality soil for rice farming. Another significant number of respondents accounting for ninety five (95) at twenty five percent (25%) are of the view that they frequently experience climate-related challenges, such as flooding, drought, or pests, which affect your rice farming activities. This was closely followed by (21%) of respondents who asserted that they only faced such challenges occasionally. While (14%) of the respondents conceives that they rarely experience such challenges, a small number of the respondents at (9%) contends that they had never experience such challenges.

Table 1.3: Opinion on how security challenges (e.g., herder-farmer conflicts, banditry) or climate issues (e.g., flooding, drought) in Kogi State affected ABP loan repayment capacity or farm productivity

Opinion	**Frequency**	**Percentage**
Severely disrupted (unable to farm/repay)	91	24%
Significantly reduced yields/income	136	35%
Moderately affected	63	16%
Minimally affected	55	14%
Not affected	41	11%
Total	**386**	**100%**

Source: Field Survey, January 2025

Table 1.3 shows respondents' opinions on how security challenges (e.g., herder-farmer conflicts, banditry) or climate issues (e.g., flooding, drought) in Kogi State affected ABP loan repayment capacity or farm productivity. A significant number of the respondents of one hundred and thirty six (136) representing thirty five percent (35%) contended that security challenges and climate related issues significantly reduced yields and income. This was followed ninety one percent (91) of the respondents at twenty four percent (24%) who were of the view that security challenges and climate issues severely disrupted their loan payment capacity or farm productivity but a

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small percentage of the respondents representing sixteen percent (16%) argued that their loan repayment capacity were moderately affected by security and climate challenges. A more smaller percentage of the respondents representing 14% of the total responses states that they were minimally affected while the smallest percentage of the respondents at 11% conceives that they were not affected by security and climate challenges.

Table 1.4: Rating the quality and availability of extension services, including training and soil testing, for rice farmers in Kogi State.

Rating	**Frequency**	**Percentage**
Poor	140	36%
Fair	100	26%
Good	80	21%
Very good	50	13%
Excellent	16	4%
Total	**386**	**100%**

Source: Field Survey, January 2025

On how to rate the quality and availability of extension services, including training and soil testing, for rice farmers in Kogi State, data supplied in table 1.4 shows that one hundred and forty (140) respondents representing thirty six percent (36%) rated the quality and availability of extension services, including training and soil testing, for rice farmers in Kogi State to be poor while one hundred respondents representing twenty six percent (26%) rated the quality and availability of extension services to be fair.

The fact that “Poor” and “Fair” (62%), dominate the majority sentiment shows dissatisfaction with extension services, indicating systemic issues like inadequate training, scarce soil testing, or poor accessibility. This was followed by third categories of respondents accounting for twenty one percent (21%) who asserted that the extension service was good. A large "Good" category (21%) may reflect partial satisfaction (e.g., services exist but are inconsistent, understaffed, or low-quality). Only 17% rate services as 'Very Good' or 'Excellent,' suggesting uneven implementation. To enhance agricultural productivity, policymakers must prioritize investments in extension infrastructure, staff training, and farmer feedback systems.

Discussion of Findings

Findings from the study revealed a disconnect between policy design and on-ground realities, exacerbated by corruption, bureaucratic inefficiencies, and poor federal-state coordination. The analysis of the responses on whether government policies provide adequate support for smallholder rice farmers (e.g., training, subsidies, or infrastructure) shows that 40% of the respondents perceive government policies as ineffective in stabilizing rice prices, signaling a need for reforms. Meanwhile, 38% rate policies as somewhat effective, suggesting partial success. Policymakers should prioritize addressing price volatility through targeted interventions e.g. (improved market linkages, transparent pricing mechanisms) to enhance trust and outcomes.
54% of respondents believe government policies do NOT provide adequate support for smallholder rice farmers, highlighting systemic gaps in policy implementation. Meanwhile, 22% are unsure, indicating poor awareness or inconsistent outreach. To address this, policymakers

should enhance transparency, streamline subsidy distribution, and invest in critical infrastructure e.g., (storage facilities, irrigation) to align policies with farmers' needs.

Furthermore, 77% of smallholder rice farmers in Kogi State face climate-related challenges 'Occasionally' or more frequently; with 31% reporting they occur 'Almost Always.' These challenges threaten food security and farmer livelihoods, underscoring the urgent need for targeted climate adaptation strategies (irrigation infrastructure, pest-resistant crops) and enhanced policy support. 62% of respondent rice farmers in Kogi State rate extension services as 'Poor' or 'Fair,' highlighting critical gaps in training, soil testing, and service accessibility. Only 17% rate services as 'Very Good' or 'Excellent,' suggesting uneven implementation. To enhance agricultural productivity, policymakers must prioritize investments in extension infrastructure, staff training, and farmer feedback systems.

Conclusion

Nigeria's food security depends on empowering smallholder rice farmers through climate resilience, infrastructure investment, and inclusive policies. Smallholder rice farmers in Kogi State, Nigeria, are pivotal to local and national food security, yet they face systemic challenges that undermine their productivity and livelihoods. Despite government policies like the Anchor Borrowers' Programme (ABP), implementation gaps, climate vulnerabilities, and structural barriers persist. Issues such as limited access to quality inputs, inadequate irrigation, post-harvest losses, insecurity, and underfunded infrastructure disproportionately affect farmers in Kogi State, where flooding and communal conflicts further exacerbate risks. The disconnect between policy design and on-ground realities highlights the urgent need for context-specific, inclusive strategies. Addressing these challenges is not only critical for improving rural incomes but also for achieving Nigeria's sustainable food security and reducing dependency on rice imports.

Recommendations

This research underscored the need for sustained commitment from all stakeholders—government, private sector, and development partners—to create an enabling environment for agricultural growth and food security in Kogi state. On this basis, the following recommendations are made

i. Localize Policy Design: Involve farmers, cooperatives, and local leaders in policy formulation to align interventions with Kogi State's agro-ecological and socio-economic needs (e.g., flood-resistant rice varieties for flood-prone areas). For transformative impact, policies must address bureaucratic inefficiencies, prioritize climate adaptation, and empower marginalized groups like women farmers and others.
ii. Improve Rural Infrastructure: Improving rural infrastructure could help reduce post-harvest losses. Government and other financially buoyant stakeholders in the agricultural sector should invest in modular rice mills and hermetic storage systems, which cut losses by 30% (World Bank, 2022). Also, prioritizing road construction in rice-producing zones in the state to connect farmers to markets will help to curb the challenge of over 60% of rural roads in Kogi state that are impassable during the rainy season, delaying the transport of rice to markets and increasing transportation costs by 40% (NBS, 2021).

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