



AGRICULTURAL PRACTICES AND FOOD SECURITY IN NORTHERN SENATORIAL ZONE OF NASARAWA STATE, 1940-2020

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Abstract

This study examines the historical trajectory of agricultural practices and food security in Akwanga, Nasarawa Eggon and Wamba LGAs, which constitute the Northern Nasarawa zone, from 1940 to 2020. It highlights how traditional systems of farming underwent some transformations under colonial administration. It also dealt with post-independence agricultural reforms, and interventions by successive governments, drivers of production and food security change. Thus, some post-independence policies like Structural Adjustment Programme (SAP) and its impact on agricultural production were highlighted with a view to evaluate the successes and failures of post-colonial reforms. The study further navigates the disruptions introduced by colonial policies like cash crop production, land tenure restructuring, payment of taxes, and forced free labour for colonial constructions. Methodologically, oral history, secondary and archival sources were used to highlight the resilience and adaptability of indigenous agricultural systems. Two interrelated theoretical frameworks were adopted for the study namely, political ecology and modernisation theory. In the end, the study found out among others that traditional policies and practices were largely based on subsistence farming that ensured food security in the area, prior to changes introduced in the colonial period. Again, the study opined that as the last tier of government nearest to rural farmers, the affected Local Government Councils can influence agricultural productivity through positive policies and initiatives that have direct bearing with survival and food sustainability in the zone.

Keywords: Agriculture, Food Security, Northern Zone, Labour, Nasarawa State

Introduction

Agriculture was, and is still, the mainstream of rural economies in Africa, Nigeria, and specifically the Northern zone of Nasarawa State. The region is made up of Nasarawa Eggon, Akwanga, and Wamba Local Government Areas and is blessed with arable land, favourable climatic conditions, and culturally embedded traditions of farming. Owing to the availability of fertile soil in the region before colonialism, it was difficult to identify people who were not farmers within the area (Nagba, 2025). Prior to colonial distortions of agricultural practices, farmers in the area practised bush fallowing, shifting cultivation, and intercropping systems. Mixed farming suited the regional topography, while



monocropping was considered a waste of resources, time, and energy. Nonetheless, colonial authorities introduced agricultural policies that altered traditional norms but favoured the colonial economy at the expense of indigenous farmers. Prior to colonial rule and its attendant disruptions, such as changes in land control and ownership, the introduction and enforcement of cash crops as raw materials for European industries, and the implementation of compulsory labour, farmers also practised terracing systems of agriculture, especially in Nasarawa Eggon (Ajiji, 2011). These agricultural practices ensured a degree of food self-sufficiency and social cohesion in the region. Ajiji aptly described the land tenure system by arguing that land possession “was communal in nature, while households had free access and security to land” (Ajiji, 2011: 93).

Different varieties of crops are produced in Nasarawa North, including acha, maize, groundnuts, guinea corn, millet, wheat, cocoyam, sweet potatoes, cotton, beniseed, water yam, white beans, traditional beans (*ebiekpyen*), rice, cassava, palm oil, and palm kernel. Colonial archival records indicate that these agricultural products “are considered to be of high value and are frequently bought and sold” (Masterton-Smith, 1911:16). However, colonialism disrupted traditional farming methods through the promotion of cash crops and the restructuring of traditional systems of land ownership and control. In addition, colonial authorities introduced taxation and compulsory labour services, which had far-reaching consequences on local farming and productivity. These policies affected subsistence agriculture and food security in the region. It is within this context that this study interrogates the historical trends of agricultural practices and food security within the Northern Senatorial Zone of Nasarawa State from 1940 to 2020.

This study was guided by the following research questions: What were the dominant agricultural practices in Northern Nasarawa from 1940 to 2020 and how did they support food security? How did colonial agricultural policies and practices alter indigenous farming systems and food security? In what ways did post-colonial administrations attempt to reform agriculture, and what were the effects? What challenges continue to undermine food security in Northern Nasarawa today? What lessons can be drawn?

To achieve these goals, the study is structured under the following subheadings: introduction, conceptual clarification, theoretical framework, geographical setting and historical background, pre-colonial agricultural practices, consequences of colonial intrusion and agricultural developments after independence, challenges of food security in the region and conclusion.

Conceptual Clarifications

The study of food security in Central Nasarawa requires the definition and conceptualisation of some key concepts. The concepts are interwoven and serve as the foundation for analysing the dynamics affecting rural farming as the major means of livelihood and food availability. Proper clarification of these concepts ensures that the terms are comprehended not merely in their holistic sense but also within the specific context of this research. The key concepts further relate to the political ecology of food security and modernisation theory. Scholars generally agree that conceptual clarification is the process of defining and refining key terms in a study to ensure precision, measurability, theoretical coherence, and shared understanding between the researcher and the reader (Merton, 1968). The core concepts clarified in this study include agriculture, agricultural practices, and food security.

Agriculture

Agriculture implies the production of crops and the rearing of livestock for food, raw materials, and income. In Northern Nasarawa, agriculture forms the backbone of local livelihoods, comprising subsistence and commercial farming of staples such as maize, cassava, yams, rice, sorghum, legumes, and livestock such as goats, sheep, pigs, cattle, and poultry. These activities are shaped by the region's



climate, fertile land, and long-standing indigenous farming systems that sustain households economically and socially (Nasarawa State Ministry of Agriculture, n.d.). Iwena (2020) defines agriculture as the science, art, and practice of tilling the soil, producing crops, and rearing livestock for human consumption, balanced diets, marketing, and economic gains. Similarly, the Food and Agriculture Organisation of the United Nations defines agriculture as a system of practices geared toward increasing the production of plants and animals for human use (FAO, 2017). Grigg (1982) and Toyin Falola (2019) also describe agriculture as the cultivation of land, raising of animals, and utilisation of biological processes to produce food and other products for human consumption.

Agriculture encompasses both subsistence farming, which focuses on household survival, and commercial farming, which targets markets and profit. In the Nigerian context, particularly in Nasarawa North, agriculture is not only an economic activity but also a cultural practice tied to identity, festivals, and social relations (Falola, 2019). It also includes crop production, animal husbandry, agroforestry, agro-processing, and aquaculture. In many developing countries such as Nigeria, agricultural activities remain the mainstream of the economy and a major source of livelihood. Agriculture contributes significantly to employment, food supply, and foreign exchange earnings. Beyond its economic value, agriculture also performs social functions by stabilising rural communities and ensuring food security (FAO, 2017).

The FAO further explains that agriculture is essentially an organised effort to cultivate land and exploit natural resources for human consumption and industrial raw materials. From the perspective of economic disruption theory, agriculture becomes vulnerable during periods of insecurity because disruptions in labour mobility, input supply chains, and market access can seriously affect agricultural production (FAO, 2017).

Although farming remains the dominant source of livelihood in Nasarawa Eggon, Akwanga, and Wamba LGAs, agricultural productivity has fluctuated due to structural, ecological, and security-related constraints. The Nasarawa State Economic Development Strategy recognises agriculture as the backbone of rural income and food supply in the state (Nasarawa State Government, 2004). Similarly, data from the National Bureau of Statistics indicate that crop output in North-Central Nigeria has experienced periodic decline linked to insecurity and market instability (NBS, n.d.). Recent studies further demonstrate that farmer-herder conflicts have disrupted access to farmland, reduced cultivated land areas, and weakened rural food systems (International Crisis Group, 2018). These disruptions align with the economic disruption and human security frameworks, which argue that instability directly undermines livelihood sustainability and food access (UNDP, 1994).

Food Security

The FAO defines food security as a condition in which all people, at all times, have physical and economic access to sufficient, safe, and nutritious food that satisfies dietary needs and food preferences for a healthy and active life (FAO, 1996). Food security consists of four major dimensions: availability, accessibility, utilisation, and stability (Maxwell & Mark, 2003). The future of food security depends largely on the decisions and efforts of households, governments, private and public sector agencies, and international communities. Although sufficient food may exist globally, unequal distribution and persistent conflicts prevent equitable access and consumption.

Narasaiah (2011) argues that for people to be food secure, they must have access at all times to the food required for a healthy and productive life. In Nasarawa North, food insecurity has been intensified by violent conflicts, climate change, and failures of governance. In Nasarawa Eggon, Akwanga, and Wamba LGAs, recurrent violent conflicts, kidnapping, and banditry have disrupted



farming activities, destroyed crops, displaced farmers, and forced communities away from fertile land. Consequently, food security is not merely an agricultural issue but is closely linked with peaceful coexistence, political stability, and socio-political structures. In Nigeria generally, food security has fluctuated historically due to changes in farming practices, exploitation, policy interventions, and contemporary challenges such as insecurity (Ajiji, 2011).

Agricultural Practices

The term agricultural practices refer to historical farming systems and techniques that evolve in response to ecological, political, and socio-economic forces. In Nasarawa North, agricultural practices range from indigenous subsistence farming during the pre-colonial period to colonial export-oriented cash cropping and post-colonial modernisation policies such as “Operation Feed the Nation” and the “Green Revolution.” Prior to colonial intervention, the economy of Nasarawa North was predominantly agrarian. Small-scale household farmers practised subsistence agriculture and cultivated crops such as groundnuts, acha, millet, guinea corn, sorghum, maize, and yam as staples (Falola, 2019). The rearing of domestic animals, especially goats, sheep, and chickens, complemented crop production. Farmers also planted economic trees such as locust bean, guava, palm trees, and oranges. Farming systems were adapted to ecological conditions and relied on shifting cultivation, intercropping, and bush fallowing to maintain soil fertility. Local trade networks facilitated the exchange of farm produce, while surplus crops were traded with neighbouring communities, thereby contributing to food security and social cohesion (Onuora, 1989).

Theoretical Framework

This study draws upon two interrelated theoretical perspectives: Political Ecology and Modernisation Theory.

Political Ecology Theory

Political ecology was developed by scholars such as Piers Blaikie, Michael Watts, and Paul Robbins. The theory explains why marginalised societies often bear the burden of conflict-driven hunger. According to Watts and Bohle (1993), the political ecology perspective conceptualises food insecurity within broader historical, political, and ecological contexts.

Political ecology is regarded as a radical or critical approach because it challenges conventional political explanations of food insecurity. The theory emphasises that environmental and food crises are deeply rooted in historical, political, and economic structures (Blaikie, 1985). In Central Nasarawa, political ecology explains how colonial legacies of land tenure systems, weak governance, inequality, and environmental factors such as desertification, erratic rainfall, and climate variability interact to deepen security challenges. Combined with ineffective conflict mediation, these dynamics intensify violent conflicts and perpetuate cycles of food insecurity (Akinyoade & Gewald, 2014). Consequently, political ecology provides insight into how power relations and environmental factors shape the vulnerability of food systems in Northern Nasarawa.

Modernisation Theory

Modernisation theory was propounded by scholars such as Walt Whitman Rostow, Talcott Parsons, Daniel Lerner, and Marion J. Levy Jr. during the 1960s. The theory explains agricultural transformation as part of a broader transition from “traditional” to “modern” societies. It views indigenous subsistence systems as less efficient and emphasises technological innovation, commercialisation, and state-led policies as pathways to agricultural development and food security. Although modernisation theory influenced post-colonial agricultural reforms in Nigeria, including mechanisation programmes and improved seedlings, critics argue that it often neglects the resilience and sustainability of indigenous practices. Critics further contend that the theory is Eurocentric



because it portrays African, Asian, and Latin American societies as backward while ignoring colonial exploitation, unequal trade relations, and external economic domination.

The interaction of these theoretical perspectives demonstrates that violent conflicts and food insecurity in Nasarawa North cannot be separated from their historical antecedents. Colonial policies, governance failures, and neoliberal agrarian reforms have produced structural imbalances that fuel recurring conflicts in the region. Whenever violence erupts, farming cycles, planting, and harvesting activities are disrupted. Violence also displaces both human and livestock populations and weakens resilience, thereby deepening food insecurity (Ibeanu, 2000). These interconnected cycles, in which violent conflict breeds hunger and hunger in turn breeds conflict, are best understood through a combination of political ecology, modernisation theory, and human security theory. Political ecology uncovers how colonial legacies and global economic structures reshaped agriculture in Nasarawa North at the expense of local food security. Modernisation theory explains the post-colonial drive toward agricultural reforms while exposing the limitations of purely technology-driven interventions. Human security theory situates food security as a basic human right and demonstrates how insecurity and environmental threats undermine agricultural livelihoods (UNDP, 1994). By combining these perspectives, this study provides a comprehensive framework for analysing the historical evolution of agricultural practices and their implications for food security in the region.

Nasarawa North in Geographical and Socio-Cultural Perspective

Nasarawa North is located in the Middle Belt region of Nigeria and consists of three Local Government Areas: Nasarawa Eggon, Akwanga, and Wamba. The region serves as a transitional zone between the savannah and forest ecological belts (Ibrahim, 2000). It is characterised by undulating hills, plains, fertile valleys, and rivers, particularly around Nasarawa Eggon, Akwanga, and Rindre in Wamba. These geographical features provide favourable conditions for diverse agricultural activities such as farming, hunting, livestock rearing, and fishing.

The region experiences a tropical climate with distinct wet and dry seasons. Annual rainfall ranges between 1,200 mm and 1,800 mm, making the area highly suitable for cultivating cereals, tubers, legumes, and vegetables (Mabogunje, 1971). Rivers such as the Mada and Eggon further provide water resources for irrigation and fishing, thereby supplementing rain-fed agriculture.

Nasarawa North is home to diverse ethnic groups, notably the Eggon, Mada, Rindre, Nungu, Buh, Nakere, Ninzo, Kantana, Tiv, Yoruba, and Igbo (Falola & Heaton, 2008). These ethnic groups have traditionally been agrarian, with farming forming the basic foundation of their livelihood and identity. Agricultural activities in the region were not merely economic pursuits but also served social and cultural functions tied to festivals, rituals, and communal labour practices. For example, yam festivals among the Eggon people marked the commencement of harvest seasons and reinforced the centrality of agriculture to community life (Achi, 2001). Land was communally owned, with traditional institutions such as clan heads and chiefs mediating land distribution and farming rights.

Prior to colonial intrusion, the economy of Nasarawa Central, and by extension the entire state, was predominantly agrarian. Households practiced subsistence farming, cultivating millet, sorghum, maize, and yam as staple crops (Falola, 2019). Animal husbandry, particularly goats, sheep, and poultry, complemented crop production. Farming systems were adapted to ecological conditions and relied on shifting cultivation, intercropping, and fallowing to maintain soil fertility. Local trade networks facilitated the exchange of farm produce, while surplus crops were traded with neighboring communities, contributing to food security and social cohesion (Onuora, 1989).



Agricultural Practices in Nasarawa North Prior to Colonialism

In the pre-colonial era, agriculture in Central Nasarawa was predominantly subsistence in outlook. Farming activities were carried out primarily to provide food for household consumption rather than for large-scale commercial exchange (Falola, 2019). Responding to an interview question, Maka Nagba explained that communities cultivated staple crops such as yam, millet, sorghum, maize, guinea corn, groundnut, bambara nut, acha, and cocoyam (M. Nagba, personal communication, July 17, 2025). Complementing Nagba's assertion, Mabogunje (1980) maintained that these staples formed the basis of the local diet, ensured household food security, and also supported inter-community exchange.

Modernisation theorists generally viewed indigenous subsistence systems as less efficient and emphasized technological innovation, commercialization, and state-led policies as pathways to agricultural development and food security. Although modernization theory often neglected the resilience and sustainability of indigenous practices, it significantly influenced post-colonial agricultural reforms in Nigeria, especially in Nasarawa Central, through mechanization programs and the introduction of improved seedlings.

With regard to farming methods and techniques, farmers in the region relied on simple but effective tools such as hoes, cutlasses, and digging sticks before the colonial era. Farming systems were largely manual, with labour provided by family members, hired labourers, debtors, and domestic servants (Ekundare, 1973). Techniques included shifting cultivation, intercropping, crop rotation, and bush fallowing. Through shifting cultivation, farmers cleared grasslands or forests, cultivated them for several years, and then moved to more fertile lands to allow natural soil regeneration. Intercropping involved planting multiple crops together, such as yam and maize, or millet and legumes, to maximize land use and reduce the risk of crop failure. Crop rotation and bush fallowing allowed farmland to rest periodically in order to restore soil fertility. These practices reflected deep ecological knowledge and were well adapted to the local environment (Griggs, 1982).

Agriculture in the pre-colonial period was deeply embedded within communal social structures. Ibrahim (2000) stressed that land was collectively owned under the authority of clan heads or village chiefs, who allocated plots to households. Akpaki, Dogari, and Umar explained in separate interviews that communal labour groups organized around age grades—known as Ekpa among the Eggon, Shar in Mada land, and Tabur among the Rindre in Wamba—played important roles in cultivation, planting, and harvesting (M. Akpaki, personal communication, September 20, 2025; S. Dogari, personal communication, August 12, 2025; U. Mohammed, personal communication, October 22, 2025). According to Achi (2001), this communal structure not only reduced labour burdens but also reinforced solidarity and social cohesion.

In relation to food security and storage systems, farmers in Nasarawa Central constructed traditional granaries known as Anjugu among the Eggon, Gur among the Mada, and Kwubu among the Rindre in Wamba. These granaries were used for storing cereals such as millet and sorghum, while yam barns preserved tubers. Onuora (1989) argued that such storage technologies minimized post-harvest losses and provided food reserves during the dry season. Additionally, surplus produce was exchanged in local markets, which served as centers of trade and social interaction. Food shortages were mitigated through reciprocal arrangements in which households supported one another during periods of scarcity (Watts, 1983).

Livestock integration, mixed farming, and agricultural festivals were also integral aspects of pre-colonial agriculture in Nasarawa Central. Usman Abdullahi stated that agricultural productivity was not limited to crop production alone (U. Abdullahi, personal communication, January 24, 2026).



Livestock such as goats, sheep, poultry, pigs, dogs, and ducks were reared alongside farming, while hunting and fishing supplemented local diets. Falola and Heaton (2008) noted that manure from domesticated animals was used to fertilize farmlands, making farming ecologically sustainable. This integration of crop and livestock farming enhanced household resilience and supported nutritional diversity. According to Maka Nagba, agriculture was closely tied to spirituality and cultural life, as festivals such as the New Yam Festival among the Eggon, Mada, and Rindre symbolised gratitude to ancestral spirits and deities for bountiful harvests (M. Nagba, personal communication, July 17, 2025). These cultural practices reinforced the importance of agriculture not only as an economic activity but also as a spiritual and social bond within communities (Achi, 2001).

Government Policies and Initiatives

Agricultural production is a key determinant of food security, income generation, and socio-economic development in struggling societies like Central Nasarawa. Therefore, as the tier of government closest to rural farmers, the affected Local Government Councils are strategically positioned to influence agricultural outcomes through positive policies and rural initiatives. Under the federal structure in Nigeria, Local Government Areas are constitutionally assigned responsibilities that include rural development, construction and maintenance of feeder roads, establishment of markets, and participation in agricultural extension services (Federal Ministry of Agriculture and Rural Development [FMARD], 2016). Consequently, the effective execution of these roles is essential for the enhancement of agricultural productivity at the grassroots level.

In line with government policies and initiatives, the Structural Adjustment Programme (SAP) was an economic package introduced by General Ibrahim Babangida in 1986. Triggered by the collapse of oil prices and unsustainable fiscal deficits, SAP was promoted by the World Bank and International Monetary Fund (IMF) in response to the economic crises in Nigeria. Intended to address balance of payment deficits, reduce pressure on foreign reserves, and restructure the productive base of the Nigerian economy, SAP drastically affected the Nigerian economy and citizens negatively (Aloysius, 1992). SAP led to the devaluation of the Nigerian currency and promoted competitiveness through trade liberalisation, including the removal of import controls and subsidies. It also introduced fiscal austerity through reductions in government expenditure on social services and agriculture, as well as privatisation and deregulation of sectors previously dominated by the state (Ogebe & Ogah, 2020). Although there are few studies focusing specifically on Central Nasarawa during SAP's historical era, the broader national and regional agricultural impacts of SAP can reasonably be applied to the region because of its dependence on staple crop production and rural livelihoods. Nasarawa North relied heavily on smallholder cultivation of crops such as maize, rice, yam, beans, cassava, and groundnut. Consequently, the increased costs of seeds, fertilisers, and farming equipment without corresponding subsidy support reduced farmers' profitability. This reflected the national trend in which SAP reduced access to subsidised agricultural inputs (Mijindadi, 1988).

Furthermore, SAP contributed to food price inflation resulting from currency devaluation and subsidy removal. As staple foods became more expensive, vulnerable households in Central Nasarawa became poorer, thereby undermining food security (Ogebe & Ogah, 2020). Following cuts in government spending and support to farmers under SAP, rural extension services, mechanisation assistance, and agricultural research were curtailed (Mijindadi, 1988). These supports were vital to agricultural productivity in rural areas such as Northern Nasarawa State. Trade liberalisation under SAP also exposed rural marketers to international market volatility. While some cash crops benefited from wider market access, many food staples in Nasarawa North suffered from import competition and unstable prices, thereby disadvantaging local farmers (Ogebe & Ogah, 2020).



Agricultural Practices in Nasarawa North, 2000–2020

In Northern Nasarawa, the agrarian economy continued to be dominated by smallholder and mixed-cropping systems during the rainy season. Major cultivated crops included maize, rice, yam, cassava, millet, groundnut, cowpea, and guinea corn. These crops reflected staple food preferences and resilience strategies in which cereals and tubers were cultivated together. According to data from the National Agricultural Extension and Research Liaison Services (NAERLS, 2020), supplementing cereals with legumes such as groundnut and cowpea helped to maintain soil fertility under low-input agricultural systems. At the national level, reports by NAERLS and the National Bureau of Statistics (NBS) indicated that smallholder crop production remained the dominant farming system, with approximately 40.2 million Nigerian agricultural households engaged in crop production (Agricultural Performance Survey of Nigeria, 2021). In an oral interview conducted on January 27, 2026, Bako Ahmadu explained that mechanised agriculture remained limited in the early 2000s, while soil fertility was maintained through organic inputs, traditional fallowing, and limited use of inorganic fertilisers due to high input costs and weak rural input-dealer networks (B. Ahmadu, personal communication, January 27, 2026).

Although detailed crop-by-crop and hectare-by-hectare data for Central Nasarawa from the late 1990s remain limited, national and state-level evidence suggests that this period witnessed steady expansion of cultivated land and modest increases in agricultural output. Factors such as population growth, increased demand for staple crops, improved seed and fertiliser usage, and relatively stable rainfall contributed to this expansion (NAERLS, 2024). Mixed cropping and crop rotation systems also enhanced soil fertility under low-input constraints. During this period, food availability and market access improved, enabling farmers to sell surplus cereals and tubers, thereby increasing income levels and encouraging savings against seasonal shortages (NAERLS, 2024).

Between 2012 and 2014, insecurity arising from inter-ethnic conflicts, banditry, climate change, land scarcity, market disruption, and input constraints undermined agricultural growth in Nasarawa State, particularly in Central Nasarawa. The region experienced farmer-herder conflicts, ethnic tensions, kidnapping, rape, and disturbances associated with pastoralist activities (Uji, 2025). These security challenges disrupted access to farmland, displaced farmers, reduced farm labour, and hindered planting and harvesting activities. Consequently, cultivated farm areas, yields, and agricultural output declined significantly. Rising input costs, poor rural roads, weak storage infrastructure, and inconsistent extension services further constrained agricultural recovery (Uji, 2025).

Erratic rainfall, occasional floods, droughts, and climate variability also contributed to unpredictable farm yields. The lack of widespread irrigation and water-harvesting infrastructure forced farmers to depend largely on rain-fed agriculture, thereby increasing production risks and discouraging investment in farm inputs (NAERLS, 2024). These conditions reduced both agricultural production and household income, thereby undermining food security and increasing household vulnerability.

Despite these challenges, signs of recovery began to emerge from 2018 onward as security conditions gradually improved and farmers resumed cultivation activities. Reports indicated increased output during the 2024 wet season, especially for staple crops such as rice (NAERLS, 2024). However, structural problems including weak mechanisation, limited irrigation, poor storage facilities, high input costs, and climate risks continued to constrain productivity gains. According to Abu Gambo, improvements in crop production did not necessarily translate into stronger food security because post-harvest losses, weak market access, and lack of financial buffers limited household resilience (A. Gambo, personal communication, January 29, 2026).



The study further revealed that although agricultural growth and staple crop output generally improved between 1996 and 2010, the trend was disrupted from 2012 onward due to violent conflicts, market pressures, and climatic variability (National Bureau of Statistics [NBS], 2022). Farmer-herder conflicts, banditry, kidnapping, and related security threats contributed significantly to farmland abandonment, reduced planting activities, farmer displacement, and labour shortages, thereby reducing productivity levels (NAERLS, 2020).

Weak irrigation infrastructure, inadequate input supply systems, poor rural roads, insufficient storage facilities, limited mechanisation, and small landholdings trapped many farmers in low-input and low-yield agricultural systems (Agricultural Performance Survey of Nigeria, 2021). Rising costs of farm inputs and transportation worsened these constraints.

Although some recovery in crop production occurred in 2024, the gains remained fragile and unevenly distributed. Vulnerable groups such as displaced families, landless persons, and female-headed households continued to experience food insecurity and unstable access to food (NAERLS, 2024). Government interventions in the form of input support, extension services, and wet-season agricultural surveys have not sufficiently addressed persistent structural challenges such as poor irrigation systems, weak rural infrastructure, and inadequate social protection mechanisms (NAERLS, 2024).

Grassroots Infrastructural Development Measures

There is an urgent need for Local Government Councils in Central Nasarawa to prioritise the construction and maintenance of rural feeder roads linking farms to market centres. Improved road networks would reduce transportation costs, minimise post-harvest losses, and improve farmers' access to both agricultural inputs and markets. Rural electrification and water supply projects would also support agro-processing and irrigation activities (Okuneye & Ogundele, 2019).

To strengthen agricultural extension services, the Local Government Councils of Nassarawa Eggon, Akwanga, and Wamba should recruit, train, and motivate extension officers while partnering with state agricultural development programmes and research institutes. Effective extension services are essential for disseminating modern farming techniques, improved seed varieties, and pest-control strategies (Okuneye & Ogundele, 2019).

Given the high costs of agrochemicals and limited access to fertilisers, government authorities should facilitate bulk procurement and subsidised distribution of agricultural inputs through registered cooperatives. Revolving loan schemes and partnerships with microfinance institutions would also improve farmers' access to affordable credit facilities (Olaniyan & Ojo, 2016).

Regarding irrigation and water-resource management, excessive dependence on rain-fed agriculture exposes farmers in Central Nasarawa to climate variability. Local Government Councils should therefore invest in small-scale irrigation systems to support dry-season farming and stabilise agricultural production (Food and Agriculture Organization [FAO], 2021).

Post-harvest losses continue to reduce agricultural output significantly. Consequently, government support for the construction of storage facilities, grain silos, and processing centres would improve produce preservation, enhance value addition, and increase farmers' incomes while creating local employment opportunities (Olaniyan & Ojo, 2016).



Conclusion

Nasarawa Central consists of three Local Government Areas namely, Nassarawa Eggon, Akwanga and Wamba. Agricultural practices within the region in pre-colonial era to 2020 have been a mixture of traditional, colonial and post-colonial experiences. The pre-colonial practice was marked by simple agricultural system through communal ownership and control of land, usage of manual implements like cutlasses, hoes, axe and sticks for clearance, tillage and planting. The subsistence farmers depended largely on rain-fed farming and staple crop production. However, colonial period disrupted the traditional setting and principle of agricultural productivity, due to colonial land reforms, the introduction taxation, cash crops and forced free labour. The post-colonial period witnessed some government policies and interventions such as the institution of Structural Adjustment Programme, River Basins Development Authorities, and irrigation cum mechanised farming. Other transformational policies in agriculture included the mixed legacy of interventions like Green Revolution and rural development schemes, Operation Need the nation, environmental factors and broader socio-political structures.

These varied experiences reveal an agrarian rural economy that benefitted from long-term growth, but was interjected by violent conflicts, banditry, kidnapping, rape, climatic stress, and infrastructural constraints. The decline of crop production within the shock period between 2012 and 2020 shows the nature of fragile food security where scale agricultural activities depends on secured land access, stabilise climate, and functional rural infrastructure. Whereas partial recovery from 2018 offers hope, the prevalence of structural vulnerabilities in terms of limited irrigational work, weak market facilities, high cost of input, poor storage mechanism, bad roads and increased cost of transportation implies that several households stand the risk of experiencing food insecurity. To transit toward resilience and sustainable food security, Nasarawa North require a multi-pronged strategy. There is also need to secure rural tenancy as well as conflict mitigation, investment in water and infrastructure. Other necessary steps include, data monitoring and extension services, social protection, and steadily improved input supply to farmers. If these significant steps are neglected, agricultural gains in the region may remain fragile and vulnerable to future shocks.

Based on the foregoing analysis and findings of the study, crop production and food security would improve in Central Nasarawa if further strategies are adopted. First is the issue of strengthening rural security and conflict-resolution mechanisms. Respective authorities have to institute and/or support local peace-building efforts, while been mindful of early warning signs. It is equally significant to reduce the risk of displacement by securing farm-access corridors so as to encourage all year-round farming. Promoting small-scale and dry season farming to reduce over reliance on erratic rains would usher sustainable relief, agricultural growth and development in the zone. That apart, there is ardent need for the support of rural input supply and extension systems by facilitating input-dealer networks, improved seed distribution, and periodic agricultural trainings for smallholders. On the other hand, building and maintenance of rural roads for easy access to market centers and establishment of community level storage like hermetic bags, and grain banks to ameliorate post-harvest losses would pave way for stabilised food supply and accessibility. Additionally, local authorities within the region can promote social protection and livestock diversification through the provision of seasonal safety-net transfers (cash or food). At the same time, non-farm income opportunities like artisanship and petty trading can be supported, while encouraging crop diversification such as legumes and root tubers to reduce the impact of serious shocks.



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