



International Journal of Agricultural Research and Review  
Abbreviated Key Title: *Int. J. Agric. Res. Rev.*  
ISSN: 2360-7971 Open Access: [doi.org/10.54978](https://doi.org/10.54978)  
Vol. 14, Issue 7, Pp.: 76-91, July., 2026.  
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# Rice and the Mirage of Food Security: Examining the Production and Marketing Value Chains of Rice in Taraba State, Nigeria, 1991-2023

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## Abstract

Nigeria is the leading rice producer in Africa, but still relies on import to satisfy local demand. This is particularly the case where current statistics shows that rice demand in the country stands at ten thousand metric tons, against seven thousand metric tons the country currently produces. Taraba State which is one of the leading producers of rice in the country, still falls short of demand within the state. Although several studies have examined rice production in Nigeria, limited historical scholarship has analysed how agronomic practices, market structures, and institutional arrangements interact to shape food security outcomes in Taraba State over the long term. Hence, the study focused on interrogating the rice production system or the agronomic practices accountable for rice output, and the marketing value chains responsible for value allocation. The study engaged qualitative approach, and was anchored on Marx's theory of primitive accumulation. The findings demonstrates that weak extension systems, limited mechanisation, poor rural infrastructure, fragmented markets and unequal value capture jointly constrain rice productivity and undermine food security. The market system is also confronted with issues relating to basic infrastructures such as road, warehouses, and transport system leading to the deprivation of farmers from surpluses thereof. Thus, the state government need to midwife these processes and practices to ensure bumper harvest, and food sovereignty.

**Keywords:** Rice, Food Security, Production, Marketing, Value Chains, Mechanisation.

Accepted 6-7-2026.

Published 22-07-2026

## 1. INTRODUCTION

Although Nigeria is the foremost rice producer in Africa, it remains reliant on imports to satisfy its increasing demand. This indicates that production is insufficient to meet the quantity needed in metric tonnes. Rice is the second most eaten food crop globally, following maize; however, its supply seldom satisfies demand. The Asian continent leads worldwide rice production, with China and India as the foremost producers, accounting for 29.6 per cent and 22.6 per cent of total production, respectively (J.C. Udemaze, 2018, 305). Rice ranks among the top three staple food crops globally, alongside maize and wheat. The trio collectively defines the agronomic practices responsible for production output, which meets 42% of the global caloric requirements. Rice accounts for 19 per cent of worldwide human per capita energy and 13 per cent of per capita protein. It is cultivated on almost

144 million rice farms, predominantly less than 1 hectare. Consequently, rice cultivation is essential for global food security and serves as a significant source of employment, income, and sustenance, particularly for rural populations (PricewaterHouseCoopers Limited, 2018, 4). In 2009, human consumption accounted for 78 per cent of the total utilisation of rice production. Rice serves as a staple for around 3.5 billion individuals, constituting at least half of the global population. Africa, Latin America, and the Middle East are significant markets for rice consumption and demand, but major rice-producing nations like China and India, along with other Asian countries, collectively represent approximately 90 per cent of global rice consumption. In 2017, China was responsible for 210 million metric tonnes, while India

contributed to a total global consumption of about 477.77 million metric tonnes in 2016/2017 (Udemeze, 3).

The rice economy in Nigeria is concerning. Nigeria emerged as the largest producer of rice in Africa, the leading consumer, and, concurrently, the world's third-largest importer of rice ([Thrive Agric., 2020](#)). In 2019, Africa's total rice production was 14.6 million metric tonnes, with Nigeria accounting for around 55 per cent of this volume, positioning it as the 14th largest rice producer globally, while China held the top spot. Rice is among the most widely used commodities in Nigeria, with a consumption increase of 4.7 per cent over the past decade, nearly quadrupling the global consumption growth and reaching 6.4 million tonnes in 2017, representing 20 per cent of Africa's total consumption (Pricewater HouseCoopers Limited, 4). Currently, rice is no longer a luxury for millions of Nigerians; it has evolved into a staple grain that serves as a significant source of calories for both rural and urban impoverished populations, with demand increasing at an annual rate of 5 per cent. Urbanisation, alterations in job trends, wealth disparities, and swift population growth have markedly exacerbated the imbalance between rice supply and demand in Nigeria (S.O. Oikeh et al., nd, 3).

Existing studies on Nigerian rice production have largely concentrated on production economics, technological adoption, yield improvement, and government policy interventions. While these studies have generated valuable insights into the factors influencing rice productivity, comparatively little historical attention has been devoted to examining how production systems, agronomic practices, and marketing value chains interact to shape food security outcomes at the sub-national level over time. In particular, the historical evolution of rice production and marketing in Taraba State remains insufficiently explored despite the state's strategic importance as one of Nigeria's major rice-producing regions.

Despite various government interventions, including the Anchor Borrowers' Programme and other initiatives aimed at increasing domestic rice production, the objective of achieving food sovereignty has remained elusive. Although Taraba State is recognised as one of Nigeria's major rice-producing regions with considerable production potential, its local demand for rice continues to exceed its current output. As one of Nigeria's major rice-producing regions with considerable production potential, local demand continues to exceed rice output. As one of Nigeria's major rice-producing regions with considerable production potential, rice output continues to fall below local demand. This contradiction raises important questions concerning the agronomic practices that shape production, the institutional factors influencing productivity, and the marketing value chains through which value is distributed among stakeholders. It is within this context that this study investigates the historical

evolution of rice production and marketing value chains in Taraba State between 1991 and 2023.

Taraba State represents one of the rice hubs in Nigeria, with potential to increase in terms of production and market. But even the state is in short supply in terms of rice output. This raises a number of questions around the nature of the agronomic practices, which can be held accountable for production output, and the market dynamics for surplus allocation. Hence, this study investigated the rice production and marketing value chains/practices in Taraba State.

## Aim and Objectives

The main aim of this study was to investigate the rice production and marketing value chains in relation to the question of food security in Taraba State, Nigeria. Specific objectives are to:

- I. Examine the agronomic practices associated with rice production among the farmers.
- II. Discuss the issue of mechanisation.
- III. And interrogate the value chains for rice marketing and value allocation.

## 2. RESEARCH METHODOLOGY

The study area is Taraba State, Northeast Nigeria. The study deployed the use of historical methodology that aligns with a qualitative approach. Both primary and secondary sources of data were used. The primary sources included oral interviews with farmers and entrepreneurs in the agribusinesses, which helped the researcher get in touch with the main actors in the field and have firsthand information that was not recorded or yet to be recorded. Focus group discussions were also held with farmers in selected areas cutting across the three geo-political zones in the state. The information gotten from it greatly enriches this study. Other primary sources were stakeholders consulted, which included, amongst others, the state ministries of agriculture and land and survey and the Taraba State branch of the Rice Farmers Association of Nigeria (RIFAN). The secondary sources comprised both published and unpublished materials, including books, manuscripts, journal articles, and MA dissertations. Both the primary and secondary sources were used complementarily to strengthen the study.

The multi-disciplinary method of data collection was also leveraged. This is because history is no longer insular. Therefore, services of other disciplines were used to provide a wider perspective on the subject matter. Hence, because the subject investigated is a domain that is seen to belong to the social and management sciences, the published works in these fields that were consulted

enriched the study. The method of presentation included a thematic approach because the subject is in the economic history domain, so it was structured along relevant themes for in-depth analysis.

## Conceptual Clarifications

### Food Insecurity

According to the Food and Agriculture Organization, the concept of food insecurity refers to a situation in which individuals or households do not have consistent physical, social, or economic access to sufficient, safe, and nutritious food required to maintain a healthy and productive life (Food and Agriculture Organization 2023, 10). It arises when people are unable to obtain adequate food because of factors such as poverty, low agricultural productivity, conflicts, environmental challenges, natural disasters, and fluctuations in food prices. Food insecurity may be temporary, seasonal, or long-term depending on the nature and duration of the circumstances that restrict access to food.

The concept extends beyond the mere availability of food. It encompasses four critical dimensions: food availability, accessibility, utilisation, and stability. Food availability concerns the existence of adequate food supplies through domestic production, imports, or food aid. Accessibility refers to people's ability to acquire food through production, purchase, or exchange. Utilisation relates to the nutritional value of food and the body's capacity to absorb essential nutrients, while stability emphasises the continuous availability and accessibility of food over time. When any of these dimensions is compromised, households may experience hunger, undernourishment, and other forms of malnutrition (FAO, 12).

According to the Food and Agriculture Organization (FAO, 2008; 1-3), food insecurity exists whenever people lack regular access to enough safe and nutritious food necessary for normal growth, development, and an active life. In developing countries such as Nigeria, food insecurity remains a major developmental challenge due to rapid population growth, insecurity in farming communities, climate variability, inadequate infrastructure, and declining agricultural productivity. For the purpose of this study, food insecurity entails all the situations in which individuals or households do not have consistent physical, social, or economic access to sufficient, safe, and nutritious food required to maintain a healthy and productive life.

### Food Production

Another important concept that provides a framework base for this study is food production. It has been described from diverse perspectives. A major definition

provided by the Food and Agriculture Organization is that it relates to the various activities involved in cultivating crops, rearing livestock, harvesting aquatic resources, processing food products, and distributing them for human consumption (FAO, 2008, 11). It constitutes a fundamental aspect of agriculture and serves as the backbone of food security, economic growth, and rural development. The process includes land preparation, planting, irrigation, pest management, harvesting, storage, processing, transportation, and marketing of food products (John W. Mellor, 1966, 15-20).

Food production is generally categorised into crop farming, livestock rearing, fisheries, and forestry. Crop production focuses on the cultivation of cereals, vegetables, fruits, and legumes, while livestock production involves the breeding and management of animals such as cattle, sheep, goats, and poultry. Effective food production depends on the availability of fertile land, favourable climatic conditions, improved agricultural technologies, access to credit facilities, quality seeds, fertilisers, mechanisation, and supportive government policies (Michael P. Todaro and Stephen C. Smith, 2020, 427-430).

The importance of food production extends beyond the provision of food. It contributes significantly to employment generation, poverty reduction, industrial development, foreign exchange earnings, and overall economic growth. Increased agricultural output strengthens food availability and reduces dependence on imported food commodities. In agrarian economies such as Nigeria, food production remains a crucial sector for achieving sustainable development and improving the welfare of rural populations (Keith Griffin, 1974, 43-48). In this study, food production relates to the various activities involved in cultivating crops, rearing livestock, harvesting aquatic resources, processing food products, and distributing them for human consumption.

## Theoretical Framework

One of the leading and earliest theories that provides an explanation for the activities of the market forces, foreign capital monopoly and, in this case, large-scale farms is the Marxist theorisation of 'primitive accumulation'. Broadly known as Marxian dialectics, the theory is concerned with laws of society, which determine social change. Maintaining the Hegelian dialectics, Marx infused economic factors, which he regards as the sole determinant of social change. This came to be known as "dialectical materialism" or "Marxian dialectics" (Eric Roll, 1992, 230-232).

Marxian dialectics was an anatomy of society as well as a philosophy of social transformation. Marx claimed in his early works on capitalist production that history is the story of alienation in people's lives as producers, particularly under modern capitalism (Robert B. Ekelund Jr and Robert F. Lebert, 1990, 267-268). In his Economic

and Philosophical Manuscripts, Marx articulated that labour constitutes the foundation of all wealth, but the labourer receives just a marginal portion of this value, insufficient to sustain continued employment. The majority of the labour's output is appropriated by the capitalist, resulting in a contentious conflict between capital and labour. In this conflict, the objective of the capitalist, who possesses all the advantages, is to maintain wages at the minimum level. Under capitalism, labour is reduced to a basic commodity, and all human interactions are ultimately transformed into monetary transactions. In these dynamics, the capitalist invariably profits at the worker's expense, who subsists at a minimal level.

In primitive accumulation, Marx delineates processes including the commercialisation and privatisation of land, the transformation of communal property into private property, and the repression of rights to the commons (Tor A. Benjaminsen and L. Bryceson 366). His definition of 'primitive accumulation' was 'the historical process of separating the producer from the means of production'. This indicates the seizure of land and resources from the peasantry, resulting in a pool of inexpensive labour. Marx supports his argument with the "enclosure system" in England, which subsequently supplied labour for industrialisation.

Accordingly, Marxist theory, particularly his argument on primitive accumulation, provides the theoretical foundation for this study. The transformation of the agrarian system through dialectical change from subsistence-orientated farming to a largely commercial agribusiness structure results in the alienation of farmers, who are reduced to commodities within capitalist relations of production. Although they constitute the primary producers, farmers receive only a marginal share of the wealth generated under an inequitable market distribution system, limiting their capacity to respond effectively to the dynamics of supply and demand in agricultural production and, by extension, undermining productivity and livelihoods. This challenge is further intensified by inadequate governmental commitment to agriculture, especially in the provision of essential inputs to farmers. Within this context, the emerging agro-industrial sector creates a dynamic linkage between farm and non-farm activities, and given that the rural sector absorbs a substantial proportion of labour in Nigeria, the evolution of such a sector from the agrarian base represents a concrete social reality (Benjaminsen and L. Bryceson, 366). From this perspective, agribusiness has the potential to contribute to the advancement of productive forces within the existing mode of production toward a more developed stage; however, inadequate governmental incentives and the dominance of unregulated market forces have rendered farming increasingly unsustainable for producers.

### 3. RESULT AND DISCUSSION

#### An Overview of Rice Production in Nigeria

Nonetheless, despite being Africa's foremost rice producer, Nigeria is unable to satisfy its consumption requirements. Rice production increased from 3.7 million metric tonnes in 2017 to 4.0 million metric tonnes in 2018 (Kamai, N. L.O., Omoigui, A.Y., Kamara, and F. Ekelemem, 2020, 1). The current consumption rate is 7.9 million tonnes, with rice demand anticipated to increase to an estimated 555 million metric tonnes by 2035. Currently, Nigeria can fulfil only 49% of its local demand and depends on imports to satisfy the remaining 51% (Udemeze, 2). Hence, the country's rice importation is over 3 million tonnes annually, equivalent to over US\$480 million in scarce foreign exchange (Kamai, Omoigui, Kamara and Ekelemem, 1). The country is unable to satisfy local demand due to deficiencies in manufacturing and processing technologies. Deficiencies in manufacturing and processing technologies contribute to the country's inability to meet local demand. This situation is due to deficiencies in manufacturing and processing technologies. The demand for rice is increasing at a rate that surpasses supply, influenced by factors such as population growth and urbanisation.

The cultivable area in Nigeria is estimated at 4.234 million hectares, comprising 30% rain-fed uplands, 52% rain-fed lowlands, 17% irrigated lowlands, and 1% mangroves. Rice cultivation presently exhibits a low average yield, typically ranging from 2.5 to 4.0 t/ha, which has remained consistent since the 1960s. Moreover, there exists significant variability in yields and substantial yield disparities of 1-4 tonnes per hectare between average and below-average farmers' yields (Federal Ministry of Agriculture and Rural Development 2020, 11).

Nigeria possesses approximately 4.234 million hectares of arable rice land, yet only around 720,000 hectares are equipped with irrigation infrastructure. Of these, merely 60% have comprehensive water control mechanisms, including a water head or dam, while the remainder relies on partial or seasonal water management systems (FMARD, 2020, p. 18). Approximately 2.2 million hectares presently designated as rain-fed lowlands might be converted into fully irrigated regions, allowing for the cultivation of 2 to 3 crop cycles annually. This would result in a total of approximately 2.75 million hectares of irrigated land. Presently, there are 27 dams nationwide with a cumulative capacity to irrigate 550,000 hectares of rice cultivation (FMARD, 18). Irrigated lowland exhibits the largest production potential, ranging from 6 to 9 tonnes per hectare; hence, investment in irrigation infrastructure and the formation of Water Users Associations (WUAs) for enhanced management of these facilities are prominent. Expanding irrigated land

from 500,000 to around 2 million hectares, with an average yield of 4-5 tonnes per hectare, may yield 8-10 million tonnes of paddy per crop cycle, resulting in an annual production of 16-20 million tonnes over two cycles a year. Investments aimed at converting rain-fed lowlands into irrigated areas with complete or partial water management mechanisms are essential for enabling farmers to cultivate two crop cycles annually, thus ensuring Nigeria's self-sufficiency in sustained paddy production amidst a growing population. However, policies designed to create a conducive climate for public-private sector partnership investment in irrigation systems are inadequate, and the current ones are ineffective.

The rate of mechanisation in Africa, particularly in Nigeria, has been sluggish and inadequate to enhance rice output (PWCL, 5). Nigeria's rice yield is among the lowest in the world, at 2 tonnes per hectare, compared to 4 to 7 tonnes per hectare in Asia. Over 80% of Nigeria's rice: Small-scale farmers cultivate over 80% of Nigeria's rice, while commercial growers produce the remaining 20% (PWCL, 5). Small-scale farmers produce over 80% of Nigeria's rice, while commercial growers account for the remaining 20% (PWCL, 5). Furthermore, the majority of the processors are small-scale, possessing low capacity (under 300 kg/hr) and outdated mills. Production limitations in the rice value chain encompass insufficient mechanisation, restricted availability of agrochemicals and fertilisers, minimal adoption of contemporary varieties, and poor extension services. The deployment of tractors has remained low at 0.3 hp/ha, compared to 2.6 hp/ha in India and 8 hp/ha in China. The estimated number of agricultural tractors is approximately 22,000, compared to 1 million in China and 2.5 million in India. Insufficient income, restricted access to reasonable

financing, and a deficiency in technical skills have constrained the use of mechanisation throughout the rice value chain (PWCL, 6).

### **Rice Production and Agronomic Practices in Taraba State**

Rice is a predominant staple crop in Nigeria, produced in over 18 states, including Taraba (PWCL, 6). Nigeria is facing a 51 per cent shortfall in rice output, almost 3 million metric tonnes, prompting an examination of rice production in Taraba State, a prominent producer in the country. According to a survey by the National Bureau of Statistics, Taraba State is among the principal rice producers in the nation, with Kogi State in the forefront (National Bureau of Statistics, 2019). Kogi now leads with over 8,000 metric tonnes based on the 2017/2018 and 2018/2019 agricultural seasons. States such as Benue, Kaduna, Kebbi, Kwara, and Nasarawa belong to the second category, each producing over 6000 metric tonnes within the same timeframe. The third group comprises Kano and Niger states, which have recorded more than 5,000 metric tonnes. Taraba State, along with Adamawa, Bauchi, Plateau, and the Federal Capital Territory, produces over 4000 metric tonnes and is classified in the fourth category throughout those agricultural seasons (NBS, 2019). Documents regarding rice output in Taraba State from 1991 to 2001 are scarce; however, existing records from 2002 to 2023 indicate a consistent, albeit negligible, development, attributed to the limited utilisation of modern agricultural techniques (Taraba State Agricultural Development Project, 2024). Table I shows how rice production has changed in Taraba State since 2002.

**Table I, Rice Production in Taraba State, 2002-2023**

|    | YEAR | AREA PER HECTERE | PRODUCTION (000 MT) |
|----|------|------------------|---------------------|
| 1  | 2002 | 124.28           | 202.81              |
| 2  | 2003 | 136.68           | 226.24              |
| 3  | 2004 | 144.11           | 240.00              |
| 4  | 2005 | 150.00           | 258.00              |
| 5  | 2006 | 156.23           | 306.13              |
| 6  | 2007 | 150.15           | 315.31              |
| 7  | 2008 | 147.77           | 224.93              |
| 8  | 2009 | 157.77           | 331.31              |
| 9  | 2010 | 203.77           | 294.00              |
| 10 | 2011 | 203.00           | 294.23              |
| 11 | 2012 | 157.70           | 289.30              |
| 12 | 2013 | 160.73           | 309.30              |
| 13 | 2014 | 121.80           | 328.30              |
| 14 | 2015 | 127.21           | 390.10              |
| 15 | 2016 | 160.83           | 324.14              |
| 16 | 2017 | 173.83           | 366.12              |
| 17 | 2018 | 189.46           | 417.34              |
| 18 | 2019 | 190.64           | 405.72              |
| 19 | 2020 | 191.85           | 386.54              |
| 20 | 2021 | 194.08           | 388.16              |
| 21 | 2022 | 183.13           | 402.89              |
| 22 | 2023 | 229.03           | 526.78              |

**Source:** Taraba State Agricultural Development Project, 2024

## Agronomic Practices

Several optimal agronomic strategies are essential for achieving high yields and maximising value in rice farming. These practices encompass the utilisation and accessibility of inputs, among others, such as seeds, soil analysis, fertiliser application, weed management, and planting and spacing, as well as infrastructure, including roads, warehouses, and transportation systems (Manasseh Nuhu, 2025). First, it's important to prepare the land. Agricultural areas can be prepared in two ways: when the ground is dry or when it is wet. The selection between dry or wetland conditions is contingent upon several factors, including the timing of operation, soil characteristics, and the implements used (Dayo Phillip, Olumuyiwa O. Jayeoba, Yarama Ndirpaya, and Fatunbi Oluwole 2018). The fields must be disc-ploughed promptly after harvest in November or December (for wet-season farming) to expose perennial weeds to the intense sunlight. The field is harrowed immediately prior to the initial rainfall for direct-seeded rice, and the crop is sown. The field is inundated with the initial rains for wet or transplanted rice. In the absence of ploughs, farmers should create mounds at the beginning of the initial rains to manage weeds.

The seed system is a crucial element for the success of rice cultivation. Nigeria cultivates numerous varieties of rice. Some are 'classic' kinds, but others have been introduced in the past two decades. Rice is cultivated in highland fields, lowland fields, and occasionally in mangroves, contingent upon the variety. The dissemination of these rice cultivars is contingent upon their agricultural performance and market valuation (Eniola Oluwatoyin Olorunsanya and Josephine Utsunu Ugbon, 2014, 137-141). There are fundamentally three varieties of rice farmed in Nigeria. The varieties include African rice, *Oryza glaberrima*; Asian rice, *Oryza sativa*; and, more recently, WARDA's hybrid rice, NERICA, which is only accessible to farmers participating in WARDA's PVS programme (Selbut R. Longtau, 2003, 8). *Oryza glaberrima* has long been recognised as indigenous African rice. The wild rice of Lake Chad, *Oryza barthii*, was frequently harvested in the eighteenth century. The origin of rice is associated with several locations, including Mufatai—present-day Makari, south of Lake Chad; Afae Eotoko; and Duru in Cameroon, while some suggest Sokoto among the Hausa (Selbut 8-9). The evidence indicates that *Oryza glaberrima* is of African origin and functions as a staple food.

The Asian rice, *Oryza sativa*, introduced to the coast by the Portuguese, is extensively planted across Nigeria by both Hausa migrants and indigenous farmers. *Oryza sativa* rice is classified within the Gramineae family and regarded as the most significant of all cultivated crops (Maryam Mustapha Abdullahi, 2015, 7). The origin of rice is associated with China, along with other varieties of Asian rice, such as *indica* and *japonica*, which are

believed to have emerged from a singular domestication event that transpired 8,200-13,500 years ago in China involving the wild rice *Oryza rufipogon*, a timeframe consistent with existing archaeological evidence. The British introduced two shallow swamp kinds of *Oryza sativa*: BG.79, originating from Guinea, and MAS 2401, from Indonesia (Idris Mohammed Jiddah, 2002, 339). The seeds were delivered by the colonial divisional officials, who then entrusted them to community leaders for allocation to farmers. Each farmer was required to return double the quality of seeds provided to him after the harvest, which were subsequently dispersed to other farmers in the following cropping year. This process illustrates the dissemination of variations throughout the country during the colonial era. The advancement of rice research in Nigeria has resulted in the release of NERICA, hybrid rice developed by the robust scientific collaboration known as the West African Rice Development Association (WARDA). This rice variety is delivered to farmers directly via projects or indirectly through migrant cultivators (Roger Blench, 89).

The National Seed Service (NSS), the National Cereals Research Institute, agro-dealers, and several agricultural departments, including the World Bank-assisted Agricultural Development Project (ADP), play significant roles in the seed system. The seed variety used by farmers influences the yield. Historically, farmers depended on their accumulated experience in agriculture. The selection of different seeds and their resultant yields ultimately determined the type of seed they used. The research institute has addressed the information gap regarding seed systems, supplying farmers with seed varieties that ensure optimal production. Currently, Faro 44, Faro 52, and Gawal R1 demonstrate promising yields, while Faro 66, 67, and 68 are cultivars resistant to flooding. Faro 68 is a novel cultivar that also endures drought (Manasseh Nuhu, 2024). The type of soil is a crucial factor in rice cultivation. Over the years, farmers in the state have depended on their experience to ascertain the type of soil or land used for rice farming. An accurate soil study establishes the specific quantity of seed needed. For instance, Faro 44 performs effectively in lowland areas, but Faro 68 endures flooding and other stressors. [1] Farmers predominantly rely on personal expertise due to a lack of communication with extension agents and challenges in accessing pertinent information on optimal farming practices.

Planting and spacing are crucial elements in rice cultivation. The planting techniques encompass broadcasting, direct seeding, and transplanting (Habu Haruna, 2025). The conventional method is typically broadcasting, as it is more efficient, time-saving, and requires less labour. A few individuals can cover extensive areas of land in a brief timeframe. However, research has demonstrated that such practices result in

significant waste, as a considerable percentage of seeds go buried in the soil, and optimal spacing necessary for maximising yields is not maintained (Manasseh, 2024). Nevertheless, contemporary methods like direct seeding and transplanting address this deficiency. Direct seeding requires a spacing of 20 by 20 cm, utilising 2 to 3 seeds per planting to ensure optimal yield and seed quality (Manasseh, 2024). Transplanting is predominantly a method linked to dry season agriculture. Rural farmers throughout the state have not yet adopted dry season farming, primarily due to insufficient expertise and significantly due to the capital required for the practice. However, there is a significant influx of large-scale farmers in the northern regions of the state engaged in dry season agriculture. The territories encompass Karim-Lamido, Lau, Jalingo, Ardo-Kola, and Gassol in the central region of the state. A significant percentage of farmers continue to employ the traditional broadcasting method of planting, which has consistently negatively impacted crop productivity (Manasseh, 2024).

Weed management and fertiliser application are technical aspects of rice cultivation operations. Any inaccuracy or misapplication in this process ultimately impacts the output. Contemporary best practices necessitate the application of glufosinate before planting, at the onset of either the wet or dry season, to address hardened weeds before tilling the soil, hence facilitating unobstructed rice growth (Danjuma Fojibajen, 2025). Eight days post-operation, pre-emergent herbicides such as Patria and Armigold are anticipated to be utilised to suppress emerging weeds and facilitate optimal rice development. Fourteen (14) days later, NPK fertiliser is anticipated to be applied to promote healthy growth. It is customary to apply four bags of NPK per hectare of rice cultivation. Two bags of urea will be applied per hectare of rice farm six weeks after the initiation of planting, followed by a wait for the final harvest. Faro 44 and Faro 52, the prevalent seed varieties utilised by farmers in the state, require approximately 90 and 120 days, respectively, before harvest. Nevertheless, the majority of farmers do not comply with these contemporary best practices, mostly due to ignorance and, to some extent, financial constraints. For instance, eight days post-planting, when pre-emergent applications are necessary to inhibit emerging weeds, herbicides such as glyphosate and metribuzin, mostly intended for maize, are instead utilised. These herbicides, frequently referred to by farmers as 'Lipton', ultimately suppress weeds but also weaken and, in some instances, hinder the growth of rice, often resulting in diminished harvests (Nelson Nwukabu Shedrack, 2025).

These deficiencies reveal the disconnection between farmers and extension professionals tasked with closing the information gap about contemporary best practices. Extension agents are expected to educate farmers on the essential best practices to improve productivity. The absence of communication with agents has compelled

farmers to depend on their experiences, which often do not meet standard requirements, resulting in rice paddy wastage during planting and hindering rice development owing to improper herbicide application. Broadcasting, a prevalent practice among farmers, inhibits adequate growth and hence results in suboptimal harvests. In a hectare of rice farm employing optimal agronomic principles, the yield can reach approximately 100-120 bags of rice paddy; however, under conventional farming methods, the typical harvest is only about 40-50 bags (Mikah Enoch, 2025). This clearly diminished the yield to less than fifty per cent of the value of rice grown under optimal agronomic procedures.

The causes of these deficiencies are threefold or greater. A significant portion of extension services is intended to be delivered by the government. However, the State Ministry of Agriculture, which is responsible for delivering such services, is experiencing a manpower deficit. The entity accountable for this is the Agricultural Development Project (ADP), officially backed by World Bank financing. Currently, ADP is receiving less attention from the state government, resulting in inadequate funding. This is evident from the number of departmental workers unable to provide extension services statewide. The standard ratio of an extension agent to farmers is 1:8 or 1:10. Currently, there are 1,500 farmers, which cannot ensure efficiency (Manasseh, 2024). Farmers are inadequately insured as mandated. In addition to insufficient extension agents, there exists a deficiency of trust or confidence between farmers and the government. Historically, extension agents have typically approached farmers with assurances of delivering specific services, including seedlings, herbicides, or fertilisers, among others. However, such promises were never fulfilled, as they were neither delivered nor were the farmers adequately compensated in the process. Occasionally, even when extension services are accessible, farmers do not avail themselves of them (Manasseh, 2024).

Insufficient finance constitutes an additional issue. A site visit to the State Ministry of Agriculture, specifically the ADP department, significantly reflects the government's stance on agricultural development. The office infrastructure has deteriorated, and furniture is either absent or outdated in several offices, with insufficient funds for staff to do their tasks efficiently. They are not significantly engaged as primary stakeholders in issues related to agricultural development within the state. An exemplary instance of this degree of neglect is the recent acquisition of tractors by the state government without prior consultation to ascertain the requisite regions of involvement (Haruna, 2025). There is significant negligence and insufficient budget for the ministry to fulfil its responsibilities adequately. All these programs exhibit a deficiency in synergy and inclusivity for agricultural growth in the state.

The state ministry seeks to rectify the disconnection between extension agents and farmers by using mass

media strategies, particularly by utilising cable networks in the state (Manasseh, 2024). Due to the absence of funding for effective extension activities, ADP periodically collaborates with Shomo FM and Taraba State Broadcasting Services (TSBS) on various activities. The choice of cable networks is because most farmers in rural areas only have transistor radios, which they use to listen to Shomo FM and TSBS. A substantial number of rural farmers use transistor radios, making radio broadcasts the most accessible method of communication for them. In this manner, knowledge on contemporary optimal agricultural techniques is disseminated. This method effectively disseminates knowledge about contemporary optimal agricultural techniques. This method effectively disseminates knowledge about contemporary optimal agricultural techniques. The farmers also made enquiries during these programmes to seek clarification on ambiguous topics and to acquire knowledge regarding the procurement of specific services and products, such as pesticides and seeds. However, this method is insufficient to resolve the current issues faced by farmers. Non-governmental organisations offer extension services to farmers within their purview, and these interventions are often insufficient, as NGOs typically have specific targets or a limited number of farmers they assist, which frequently excludes many farmers from across the state. Instances of this type of intervention include those offered by the International Fund for Agricultural Development (IFAD), the Value Chain Development Agency and the World Bank's FADAMA Cares Projects within the state. Their therapies are efficacious, although they exhibit restricted coverage. For instance, IFAD encompasses only eight (8) of the sixteen local government areas within the state (Emmanuel Zubairu, 2025), while FADAMA Cares covers only five (5) LGAs (Regina Festus, 2025) with a farming population of about fifteen thousand and four thousand for IFAD and FADAMA, respectively.

## Mechanisation

Apart from the modern agronomic practices we discussed earlier, the issue of mechanisation is pivotal. What was widely obtainable in primitive societies was the use of implements such as wooden ploughs driven by oxen or donkeys and hoes of different shapes used by men. The use of such implements has continued through colonial and post-colonial eras. However, the introduction of modern implements during the colonial era was minimal, as most methods remained peasant-based (Ibrahim Tanko, 2025). The use of modern technology in the post-colonial era is still insignificant. This is

particularly the case with the use of tractors. The use of tractors, which has replaced manpower, is not only faster but also efficient. However, the deployment of tractors in the state is far from being adequate. Statistics have indicated that the number of public and private tractors in circulation is insufficient for the majority farming population in the state. Equally important is the widespread use of harvesters in the Western world and leading rice-producing countries such as China and India. This harvester helps reduce seed wastage during the harvest and prevents the mixing of produce with stones and debris (Manasseh, 2024). The traditional method involving the use of a hand sickle and shelling leads to a lot of seed going unaccounted for or mixed up with stones during harvest. But a combined harvester ensures a clean harvest without wastage. Such a machine is scarce in the state currently; only one of the large-scale farmers is in possession of one (Santos David, 2025). This situation goes to show that most of the methods being used are still traditional. This situation partly explains poor harvests, as compared with those countries that involve the use of modern technology.

Application of modern farming technology relevant for sufficient agricultural production is significantly in short supply in Taraba State. The use of tractors, for example, which replaces human labour and ensures large-scale utilisation of the massive agricultural space, is insufficient. A tractor is central to agricultural mechanisation and a major indicator for assessing the level of agricultural development for a country. The Food and Agricultural Organization recommended a 0.2 HP/ha tractorisation density level for developing countries, while developed countries have 1.2 HP/ha (NAERLS and FMARD, 2020). Over 1 million tractors are required to meet FAO's recommended minimum standard in Nigeria. Despite the low tractor density of the country, available tractors are largely in bad condition. Tractor overhaul facilities are scarce, and replacement parts are difficult to obtain. A major setback to tractor hiring services operated by the government is poor income generation from the services, resulting from misappropriation of the money generated, which subsequently makes the government reluctant to release funds for routine and breakdown maintenance in most states, including Taraba (NAERLS and FMARD, 2020). Although some remit proceeds to the state treasury, retrieving them for the purposes mentioned above as and when needed remained an issue. Thus, agricultural production in the state remained essentially traditional, relying heavily on manual labour. Table 4.1 below displays the level of mechanisation in the state in terms of tractor deployment from 2010 to 2020.

[1] Interview with Oga Habu Haruna, Age 57, TADP, Jalingo. 3/3/2025

**Table 4.1.** Number of Tractors in Taraba State, 2010-2020

| S/N | Year | Government Owned Tractors |                | Privately Owned Tractors |                |
|-----|------|---------------------------|----------------|--------------------------|----------------|
|     |      | Functional                | Non-Functional | Functional               | Non-Functional |
| 1   | 2020 | Nil                       | NIL            | NIL                      | NIL            |
| 2   | 2019 | 100                       | 51             | 55                       | 55             |
| 3   | 2017 | 7                         | 7              | 94                       | 62             |
| 4   | 2016 | 6                         | 6              | 85                       | 59             |
| 5   | 2014 | 14                        | 34             | 46                       | 45             |
| 6   | 2013 | 47                        | 147            | 49                       | 3              |
| 7   | 2012 | 53                        | 141            | NIL                      | NIL            |
| 8   | 2011 | 48                        | 152            | NIL                      | NIL            |
| 9   | 2010 | 43                        | 141            | NIL                      | NIL            |

**Source:** Rice Production, Processing, Utilization and Marketing in Nigeria, Extension Bulletin No. 230 (2020)

The table above clearly indicates that the Taraba State government made insufficient efforts to improve mechanisation between 2010 and 2020. For instance, from 2010 to 2019, there were more non-functional government-owned tractors than those in the private sector. The only period the government seemed to have made improvements was in 2019, when it had slightly over 50 per cent of non-functional tractors. Only the private sector appears to maintain a higher percentage of functional tractors in Taraba State, ranging from 40 to 100 per cent, compared to the government's percentage of less than 20 to 40 per cent.

### Rice Marketing and Surplus Allocation

This is a significant link in the production sector in Taraba State. Rice marketing encompasses all business activities involved in the distribution of paddy and milled rice, from initial production to delivery to end consumers, ensuring timely availability, optimal location, convenience, and profitability to sustain the farmer's operations (S.O. Akande and G. Akpokodje, 2013, p. 2). To better understand how value is created and distributed within the rice economy, the marketing system in Taraba State can be analysed as a value chain consisting of interconnected actors, namely input suppliers, producers, collectors, processors and millers, wholesalers, retailers, and final consumers. Examining each stage of the chain provides insight into where value is added and how benefits are distributed among the participants.. Nonetheless, inefficiencies in the processing and marketing of domestically grown rice have heightened customer demand in Nigeria for imported varieties, which are favoured for their long, white grains (Olorunsanya, Eniola Oluwatoyin, and Josephine Utsunu Ugbong, 137-141). Imported rice, while sometimes deemed less palatable, requires minimal preparation due to the absence of stones. Removing stones from Nigerian rice

by utilising a destoner or constructing specialised threshing and drying floors will enable it to compete with imported varieties. Due to the seasonal nature of rice production and the year-round demand for consumption, supply must be adjusted to align with demand. This adjustment in storage facilitates the incorporation of the temporal utility of the manufacturing process, which is typically managed by market actors. by market actors. This adjustment guarantees that buyers receive the product at their preferred time. Consequently, rice marketing establishes the connection between production and consumption.

This implies that consumers must obtain value for their expenditure. This engenders competition over quality between imported rice and domestically produced rice. To compete effectively, we must ensure the quality of this rice. Consequently, rice marketing commences at the production stage. Priority is currently assigned to the rice brand or model. The predominant and preferred rice varieties in the market belong to the *faro* group, specifically 44, 52, 66, and the recently introduced 68 (Manasseh, 2024). The selection of these varieties is due to their assured high production, adaptability to many vegetation types, and flood resistance, as previously noted.

The harvesting procedure is critical to guaranteeing high-quality rice. The method employed, as previously noted, remains conventional, utilising hand sickles for cutting, gathering, shelling, and bagging, which requires substantial labour and is capital-intensive (Santos, 2025). Consequently, large-scale farmers allocate their resources for harvesting to ensure the rice is free from debris and stones. The market commences here; it is essential to note that marketing initiates at the point of production at the farm gate. Many rural farmers lack the capital necessary to conduct such activities at that time. Consequently, large-scale rice entrepreneurs allocate their capital for the goal of market harvesting. During this procedure, the farmer is exploited and stripped of their

produce. They are compelled to mortgage their products or compensate labour with their produce, which is often exploitative (Daniel Ejoor Dugule, 2025).

Inadequate basic infrastructure inaccessible to farmers negatively impacts their position in the market value chain. These infrastructures encompass warehouses, roadways, and transportation systems or vehicles (Daniel Shehu, 2025). The variables pertain to price distribution and connections with various rice markets. During the harvest period, rice prices often decline due to increased market availability. A farmer must sell his crop because there are no warehouses to store it. In such situations, farmers are compelled to sell rice directly from the farm gate to several enterprises. The condition of the roads leading to various rice-producing areas in the state is either severely deteriorated or unpaved, resulting in challenging and costly transportation. Many of the destinations are in challenging terrain or possess a highly intricate road network. Notable locations include Karim-Lamido, situated across the Benue River and necessitating a ferry for crossing; Lau, positioned on the banks of the River Benue, which experiences flooding during the rainy season, complicating movement; and Gassol, located off the Wukari, Jalingo, and Yola federal highways, among others. These locations either lack significant road infrastructure or the roads are in poor shape. The characteristics of the roads restrict the trucks used for transporting rice or agricultural products, resulting in high transportation costs. In a place such as Lau, the transportation cost for one bag of paddy rice to Jalingo, the Taraba State capital and a primary market destination, amounts to three thousand naira (3000).

Due to the intricacies of fundamental infrastructure, farmers are compelled to rely on several intermediaries, entrepreneurs, and large-scale rice millers commonly known as 'off-takers' (Shehu, 2025). They procure rice paddy for their milling mills in diverse areas nationwide, process it, and distribute it to various local, national, and international markets for retailers. Some parties erected warehouses directly on the farms or possess lorries for transporting these products. This situation indicates that inadequate basic infrastructure, such as warehouses, roads, and transportation, often exceeds farmers' capabilities, leading to their exploitation. This situation arises due to inadequate basic infrastructure, such as warehouses, roads, and transportation, which often exceeds the capabilities of farmers.

Rice is perpetually sought after in both local and national markets. Rice is one of the most sought-after products in the marketplaces of Taraba State (NBS, 2007). Remarkably, there is a significant demand for rice even from prominent rice-producing states such as Ebonyi, Adamawa, Gombe, Borno, Yobe, Cross River and Akwa-Ibom. Main participants in rice production within the state also engage in the market (TADP, 2015). These actors who doubled as millers and producers include Al'uma

Rice and Alganazaki and Muphido, among others (Yavalla Bodinga, 2016). Alhaji Rabiū, from the Federal Ministry of Agriculture, asserted that rice marketing is a lucrative enterprise in Taraba State. He asserted that there are around six local off-takers in Taraba State, which include Al'uma Rice Mill Ltd, Alganazaki Rice Mill, and Muphido Rice, all of which possess plants in Jalingo, the state capital, due to their proximity to urban regions and market accessibility (Rabiū Lau, 2016). He also avers that the inability to satisfy output demand stems from insufficient agricultural inputs and funding for the farmers. Alhaji Rabiū, a farmer and proprietor of the Alganazaki Rice Mill, supplies agricultural inputs to farmers, including fertiliser, monetary loans, and the rice variety Faro 44, which he claims to have initially introduced to local farmers. He stated that there are presently around one thousand farmers under his supervision (Aliyu Sarkin Noma, 2016).

Nonetheless, he asserted that the emergence of Umza and Popular Farms—the off-takers from Kano—presents a problem. The off-takers from Kano provided farmers with high prices at the farm gate, thus enabling some farmers to benefit from Alganazaki inputs and sell their rice paddy to the firms (Noma, 2016). The local off-takers invested, but another off-taker reaped the benefits, illustrating the adage, "Monkey dey work, baboon dey chop." He stated that Alganazaki will no longer provide farm inputs to farmers at no cost; instead, they will be sold to prevent a recurrence of previous issues. He noted that some farmers are yet to repay their loans (Noma, 2016). Transportation is also linked to the market conditions in Taraba State. Most imported rice must enter through locations with seaports, as it arrives in the country via large ports and borders predominantly located in significant rice-consuming regions. The commodity is transported from these places to other centres, including the production sites. The supplementary transportation expenses are evident in the comparatively high price of imported rice in the production regions. However, the circumstances in Taraba differ slightly since there is an established presence of both local and international off-takers (processors), like Al'uma Lau Rice Enterprise, Alganazaki, Mofido, UMZA, Popular, and Dominion Farms, all located in Taraba (Fadama III, 2015). The rice paddy, or local rice, is bought by these companies for processing, after which it is brought back and sold as foreign rice. Most producing areas will rather consume more local rice than imported rice. The rice is also being transported to consuming states like Abuja, Calabar, Enugu, Lagos, etc. (Noma, 2016). Consequently, rice prices, the production status within the state, and the existence of numerous off-takers, along with potential buyers of rice products from other states, significantly impact the rice markets in Taraba State.

Another issue pertinent to rice marketing is consumer preference for either local or imported rice, typically influenced by several circumstances. A primary factor that substantially affects family preferences for local versus

imported rice is associated with the income of the household head, household size, and the educational attainment of the household heads (C. K. Daudu, A.A. Yakubu, I. J. Sambo, E. Okworie (Mrs), J.O. Adeosun, and J. E. Onyibe, 2014). The inferior quality of the local rice significantly hampers its consumption by households. Nigerian consumers exhibit a clear preference for imported rice over locally produced rice, resulting in a market price premium for the former. The demand for rice in Nigeria Household budgets and quality influence the demand for rice in Nigeria. by household budgets and quality. The quality of rice is significant in its demand, even in rural regions. Rural families value quality more than urban families do, and they respond more strongly to each 1% increase in income (C. K. Daudu et al., 2014). Furthermore, consumer preference for imported rice is predicated on its cleanliness, which elucidates its increasing consumption in Nigeria to the detriment of local rice market development. The extensive history of imported rice consumption in Nigeria has resulted in habit persistence, complicating the competition for locally produced rice. Research indicates that when household income and educational attainment increase, there is a preference for imported rice over indigenous rice.

This implies that despite enhancements in local rice quality, which can compete well with imported rice produced by large-scale farmers, consumer attitudes and perceptions regarding local rice remain significant issues impacting its marketability. A marketing and policy shift favouring domestically produced items and the use of local content products is currently underway. However, the creation of tones necessary for local consumption is of greater importance, as Nigeria currently fails to produce sufficient quantities to satisfy domestic demand. Consequently, dependence on imports remains substantial. Nigeria is a significant participant in the international rice market. Notable participants in the global rice market in Africa include Madagascar, Côte d'Ivoire, and Egypt, among others. Nigeria now produces 7 million metric tonnes, while local demand reaches 10 million metric tonnes (Abdullahi Maryam Mustapha, 2015, 8). Merely 5% of global rice production is involved in foreign trade. Additional global participants include China, India, Thailand, Vietnam, the United States and Pakistan. All nations in tropical Africa are net importers of milled rice (J. C. Udemezue and A. E. Agwu, 360). This statistic indicates that nearly one-third of the demand for rice consumption in tropical Africa This statistic shows that imports satisfy nearly one-third of the demand for rice consumption in tropical Africa. by imports. This statistic shows that imports meet nearly one-third of the demand for rice consumption. One-third of the demand for rice consumption in tropical Africa Imports satisfy one-third of the demand for rice consumption in tropical Africa. by imports. by imports. This statistic reveals that imports satisfy nearly one-third of the demand for rice consumption. by imports. Imports meet the demand for

rice consumption. This statistic shows that imports meet nearly one-third of the demand for rice consumption. by imports. This situation suggests that imports satisfy nearly one-third of the demand for rice consumption. by imports. The principal rice importers are Nigeria, Senegal, and Côte d'Ivoire.

Nigeria has become a significant importer of rice in the global market and a destination for rice-exporting nations (J. C. Udemezue and A. E. Agwu, 360). It emerges as a favourable market destination globally, not solely due to its population but also because customers favour high-quality imported rice over lower-quality rice from other nations in the sub-region. This underscores that if Nigeria enhances its rice sub-sector, it will significantly contribute to poverty alleviation among the rural poor, who are the primary producers, and will also assure food security. The global trade strategy for rice market development is compromised by the fragmentation of supply, which frequently deters commercial operators, exacerbated by the ambiguity of regulatory systems that jeopardises their sustainability (Fabien Tondel, Ibrahima Hathie and Cecilia D'Alessandro, 2020, 1-7). This is particularly relevant to countries such as Senegal, Nigeria, Mali, and Ghana. The market regulation is inadequate and requires reassessment, with the stringent enforcement of the ECOWAS Common External Tariff (CET), currently set at 10% for rice (F. Tondel, Hathie and D'Alessandro, 7). Sanitary and phytosanitary controls are also inadequate. The data pertaining to the rice industry for monitoring measures and evaluations designed to assist merchants in procuring and distributing domestically produced rice, as well as institutional purchases that preferentially support local production, is a farce.

It is essential to acknowledge that ECOWAS currently lacks an effective shared trade policy. The current trade tools, particularly the Common External Tariff (CET) and the ECOWAS Trade Liberalisation Scheme, remain ineffectual. The customs union has not yet been established, let alone the common market. For instance, several member states have not yet implemented uniform additional import tariffs and taxes on rice, while certain countries charge customs duties that exceed the Common External Tariff (CET). Some have entirely ceased their application since the food crisis of 2008–2009. This occurs because domestic or national aims are prioritised over regional objectives.

The Taraba State branch of the Rice Farmers Association of Nigeria (RIFAN) is expected to intervene on behalf of rice farmers in the state, focusing on their production and marketing interests.

The evidence demonstrates that value capture within the rice value chain is highly uneven. While farmers perform the most labour-intensive activities, they receive the smallest proportion of the final market value because they operate under conditions characterised by limited storage capacity, inadequate infrastructure, weak bargaining power, and restricted access to finance. By

contrast, processors, transporters, wholesalers, and retailers progressively increase the market value of rice through processing, storage, packaging, transportation, and market coordination. Consequently, the distribution of economic value favours downstream actors rather than primary producers, thereby reinforcing rural inequality and constraining agricultural development.

The Taraba State branch of the Rice Farmers Association of Nigeria (RIFAN) is anticipated to safeguard and advocate for the interests of rice farmers in the state regarding production and marketing. This framework aims to protect the interests of rural rice growers. The Taraba State branch of the Rice Farmers Association of Nigeria (RIFAN) provides the context for this framework. However, such protection has not occurred. The association's leadership has prevented such protection from occurring. This lack of protection is due to the leadership of the association. Evidence obtained from interviews with farmers, extension officers, and former association officials suggests that leadership positions within the Taraba State chapter of the Rice Farmers Association of Nigeria (RIFAN) have increasingly been occupied by politically connected individuals and large-scale commercial farmers. Several respondents argued that this leadership pattern has influenced the allocation of government interventions, particularly those associated with the Anchor Borrowers' Programme, in ways that disproportionately benefit politically connected actors rather than the wider population of smallholder farmers (Anonymous Interview, 2025; Interview with Khalid Anas, 2024). Individuals in positions of authority have consistently exploited rural rice farmers over the years. They have achieved this success due to their status as politicians or their connections to the corridors of power. Consequently, politicians or large-scale rice farmers who prioritise their interests have predominantly held the leadership of RIFAN in Taraba State. The most recent leadership of RIFAN substantiates our claim. Alhaji Yahaya Lau, a contemporary leader, is a large-scale farmer and an off-taker (Anonymous, 2025). He cultivates and processes local rice. He is involved in both the cultivation and processing of local rice. He supervises well over five hundred farms. His role has enabled him to impact and participate in the Anchor Borrowers Programme (ABP), which was initiated by the federal government in 2015 as an intervention in the agricultural sector, with rice as its primary focus. He was an off-taker/processor for the 2015/2016 rice season, with Zenith Bank providing financial services to his farmers. His secretary, Rabiou Mamman Rabiou, was a retired director of the Federal Ministry of Agriculture (Anonymous, 2025).

Tanko Bobbo succeeded Alhaji Yahaya. Tanko is a politician engaged in large-scale agriculture. He was formerly a representative of Karim-Lamido in the Taraba State House of Assembly. Thus, influencing decisions as both a politician and a farmer, which were within his

grasp. The current leadership of RIFAN, though in an acting capacity, is headed by Alhaji Yaro Aya – another politician and former People's Democratic Party Chairman, Jalingo Local Government Area (Anonymous, 2025). These instances reinforce the notion that power dynamics within the rice economy of Taraba State primarily serve the interests of the elites, rather than the mainstream farmers who are the actual contributors to rice production in both the state and Nigeria as a whole.

These findings illustrate an important dimension of institutional governance within agricultural development programmes. Rather than functioning solely as representative organisations that articulate the interests of smallholder farmers, producer associations may themselves become arenas in which political influence shapes access to public resources. Similar patterns of elite capture have been documented in agricultural intervention programmes across Africa, where access to subsidised inputs, production credit, and extension services is frequently mediated by politically connected organisations.

The dynamics of power have recently divided RIFAN Taraba State into two sections. In a demonstration of state authority over other participants in RIFAN, former Governor Alhaji Sani Abubakar Danladi usurped the leadership of RIFAN, an event referred to as RIFAN Special (Khalid Anas, 2024). His tenure as governor of the state from 2014 to 2015 coincided with the inauguration of the Anchor Borrowers' Programme (ABP). This positions him more favourably to comprehend the nature of the programme and its implications for key stakeholders. It was little wonder, therefore, that he developed an interest in the programme. He founded his own RIFAN and exerts influence over the ABP to his advantage. This situation indicates that rural farmers were excluded from the advantages of the scheme, which were instead allocated to family, friends, and political affiliates. The roster of rice farmers registered under his name was fraudulent. This situation explains why, following Buhari's administration, which implemented the ABP, Danladi's RIFAN initiative ceased to exist naturally. Currently, RIFAN Taraba State is in turmoil, which accounts for Alhaji Yaro Aya assuming an acting role (Anonymous, 2025).

While it is not unlawful for a politician or a large-scale agricultural proprietor to lead RIFAN, it poses an issue when such leadership exclusively promotes their personal interests. This has been true for the aforementioned situations. Consequently, an umbrella organisation intended to offer protection for its members is, in fact, acting against their interests. It is reasonable to assert that state power, in conjunction with large-scale farms, collaborates in the exploitation of rural farmers, as evidenced by the leadership of RIFAN. It is also significant to observe that this group of leaders has concurrently served as intermediaries. Their leadership roles have deliberately connected them with rural farmers across

multiple places in the state. They have utilised this for green grabbing and the dispossession of rural farmers from their produce (Field Observation by Researcher, 2025).

The implication is that institutional effectiveness depends not merely upon the existence of farmers' associations but also upon transparent governance structures capable of ensuring equitable distribution of agricultural interventions. Strengthening accountability within RIFAN therefore represents an essential component of improving rice production, farmer welfare, and food security in Taraba State.

Several farmers have opted to establish cooperatives to enhance the value of their produce and access additional services (Adamu Danjuma, 2016). They primarily participate in production for three purposes: preservation, subsistence, and commerce. They retain a certain quantity of rice for future growing, household sustenance, and commercial purposes, intending to generate monetary value to address everyday needs. The market is extensive and significantly exploitative, prompting them to seek a just price for their produce. Market destinations include Kunini, Lau, Abbare, and Mayo-Lope, which serve as local market centres, while various local off-takers and agro-allied enterprises are solicited to purchase rice (Nelson Dimas, 2025). The farmers negotiate with local processors based on an agreed price, selling to a processing company that offers a comparable value for their produce. On certain occasions, these companies engage with farmers at the farm gate. Major millers such as Stallion, Umza, and Dominion, headquartered in Jalingo, the capital of Taraba State, procure rice paddy directly from the farm gate for subsequent transport to processing facilities. Despite this arrangement, the prices achievable are inadequate, given the labour required (Amadi Abba, 2024).

The establishment of cooperatives by these farmers has facilitated their access to various initiatives. The Dry Season Farmers Association has successfully engaged with the state administration to get an intervention, including NPK fertiliser. Each farmer received up to four bags per hectare (David, 2025). It is crucial to acknowledge that dry-season farming is exceedingly costly, since the effective cultivation of one hectare of land necessitates approximately three million naira (3,000,000), a sum beyond the financial capacity of rural or peasant farmers (Julius Samuel, 2025). This indicates that the members of this category are, in fact, elite or large-scale farmers with substantial resources. The members substantiate this viewpoint, as the majority comprises politicians, top public servants, active and retired military generals, and police officers, among others.

#### 4. DISCUSSION OF FINDINGS

The findings of this study reinforce a growing body of scholarship that argues that increasing agricultural production alone is insufficient to guarantee food security in Nigeria. Although Taraba State remains one of the country's major rice-producing regions, the evidence demonstrates that persistent structural constraints within the production and marketing systems continue to undermine productivity and limit farmers' capacity to benefit from the rice economy. This finding corroborates earlier studies by Udemaze (2018), PricewaterhouseCoopers (2018), and Ogunniyi et al. (2021), which identify inadequate mechanisation, weak extension services, poor infrastructure, and limited access to improved technologies as major impediments to rice self-sufficiency in Nigeria. However, unlike these studies, which primarily adopt economic or policy perspectives, the present study offers a historical analysis that traces how these institutional weaknesses have persisted over time despite successive government interventions.

The study further demonstrates that food insecurity in Taraba State is not merely a consequence of inadequate production but also of inefficiencies embedded within the rice value chain. The findings reveal that farmers experience significant losses through poor rural roads, inadequate storage facilities, weak transportation networks, and unequal bargaining power within marketing arrangements. Consequently, a substantial proportion of the value generated along the rice value chain is appropriated by intermediaries, processors, and large-scale market actors rather than by the primary producers themselves. This observation supports the political economy argument that market structures often reproduce unequal patterns of value distribution, thereby constraining rural livelihoods and agricultural development.

The evidence generated from Taraba State also reflects wider trends across West Africa. Similar studies from Ghana, Senegal, Mali, and Côte d'Ivoire have shown that although domestic rice production has expanded considerably during the past two decades, deficiencies in post-harvest management, processing infrastructure, market integration, and trade regulation continue to limit the competitiveness of locally produced rice. As Tondel, Hathie, and D'Alessandro (2020) observe, fragmented supply systems and weak regional trade coordination remain major obstacles to the development of efficient rice markets across ECOWAS member states. The Taraba experience therefore illustrates broader regional challenges in transforming increased production into sustainable food security.

At the continental level, the findings equally align with broader African agricultural development debates. Across

many African countries, agricultural growth, limited mechanisation, inadequate irrigation, weak extension systems, and insufficient public investment in rural infrastructure have constrained agricultural growth. This growth is limited. Mechanisation, inadequate irrigation, weak extension systems, and insufficient public investment in rural infrastructure have constrained this growth. by limited mechanisation, inadequate irrigation, weak extension systems, and insufficient public investment in rural infrastructure. While Asian rice-producing countries have substantially increased productivity through technological innovation, irrigation expansion, and effective farmer support services, Nigeria—and Taraba State in particular—continues to rely predominantly on smallholder production characterised by low technological adoption. This explains why increases in cultivated area have not translated into proportional improvements in productivity or food security.

The findings also provide empirical support for the Marxian theory of primitive accumulation adopted in this study. The evidence indicates that, although farmers remain the primary producers of rice, they capture only a limited proportion of the value created in the production process. Limited access to finance, dependence on input suppliers, exploitative marketing arrangements, inadequate infrastructure, and the concentration of institutional influence among political and economic elites collectively reinforce unequal patterns of accumulation. The analysis of RIFAN further illustrates how institutional structures intended to protect farmers have increasingly become dominated by politically connected actors, thereby reproducing unequal access to government interventions and market opportunities. Rather than functioning as instruments of collective bargaining, these institutions often facilitate elite capture of agricultural resources.

Overall, the study contributes to the literature by demonstrating that the food security challenge in Taraba State cannot be understood solely through the lens of agricultural production. Instead, food security outcomes are shaped by the interaction of agronomic practices, institutional effectiveness, market organisation, infrastructure development, and political economy. Addressing production constraints without simultaneously reforming the marketing value chain and strengthening rural institutions is therefore unlikely to produce sustainable improvements in rice self-sufficiency or food sovereignty in Nigeria.

## 5. CONCLUSION

The study investigated rice production and marketing systems in Taraba State, against the backdrop that food sovereignty in the country is a mirage. This is particularly the case in the rice sub-sector, where demand outweighs supply. Currently, the production capacity of the country

stands at seven thousand metric tonnes, while demand is pegged at ten thousand metric tonnes. This is also obvious from the state rice output, which scarcely satisfies local demand. Findings emerged that the shortage. The findings indicate that input supply issues, extension services, and access to optimal agronomic methods contribute to the shortage. to problems related to input supply, extension services, and access to optimal agronomic methods. Also, resolving the market issue in Nigeria will ensure that producers may sell their entire output, while consumers can consistently obtain their desired products year-round. The efficacy or deficiency of the marketing system significantly impacts the future of rice production. If the independent farmer lacks a competitive market price for his product post-production or a strategy to mitigate price risk, he will be compelled to enter into a contractual arrangement.

To curtail these problems, therefore, issues related to input supply, extension services, and best agronomic practices need to be deepened and widened by the state authority. The state would also have to do more in attracting investors by way of policy review that would provide the enabling environment to improve. The market network is not rocket science. They are tied to the elements earlier mentioned, together with the issue of basic infrastructure like good roads, warehouses, and transport systems, which are far beyond the reach of the peasants and farmers. The absence of these in most rice-producing areas of the state is responsible for short-changing the peasants' and farmers' income in terms of value allocation. If a farmer does not receive fair value for his labour, it will negatively impact production, which in turn will affect the rice sufficiency of Taraba State within the national context. Thus, the state has to midwife these processes.

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