

## **AGRICULTURAL-BASED ECONOMIC DIVERSIFICATION IN NIGERIA: CHALLENGES AND PROSPECTS**

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**Abstract:** This paper investigated challenges and Prospects of diversifying Nigerian economy through revitalization of agriculture and provision of fringe benefits that can motivate farmers to make greater contributions to the Gross National Product (GDP). Random sampling techniques were used to collect data from 90 respondents in six urban centres in Kogi and Nasarawa States and the Federal Capital Territory (FCT). Descriptive statistics, for example, Likert Scale, percentage, pie and bar chart, were used to analyse the data. The results show that agriculture faces challenges such as lack of credit facilities and poor post-harvest structures, poor public perception, inability to mechanize all farm operations, and insecurity, but it also has prospects and potentials (for example, promising agricultural policies, ongoing researches, access to arable land, and available human resources) to contribute more to GDP. It was also discovered that some schemes such as internships for agricultural graduates, special salary packages for agriculturists, health insurance and retirement schemes for farmers, and farmers' representation at the policy formulation level can motivate farmers, especially smallholders, to make more contributions to the GDP. The study concluded that although agriculture faces challenges, it is still a source of diversification of the Nigerian economy, as confirmed by 40% of the respondents; it is a major alternative among other sectors because of its potential. It is recommended that Public perception of the farmers could be improved by making farming less drudgery, lucrative, and attractive by providing farmers with credit facilities, low-cost machinery to mechanize all farm operations, provision of post-harvest infrastructures, provision of irrigation facilities; motivating farmers through retirement schemes, health insurance schemes, special salaries for agriculturists, agricultural graduate internships, and ensuring that farmers are represented at policy formulation level and probably by changing the nomenclature, 'agriculture' to terms such as, 'food sector' or 'green business' or 'agribusiness' to encourage the youth. Insecurity and corruption should be fought with dedication and definite actions, and failed policy implementers should be sanctioned, while access to production and market information should be enhanced and made cheap. All these would encourage youth to take up farming as a profession and thus help to diversify the economy.

**Keywords:** Agriculture, Diversification, challenges, Prospects and Economy

## **Introduction**

Diversification of the Nigerian economy has been a subject of discussion in several fora in and outside the country among various stakeholders. This is because of the declining fortune of the oil and gas sector, which started over two decades ago, unfavourable balance of payments, rising food import bills, and recently, the nation's economy experiencing technical recession between the third quarter of 2015 and the last quarter of 2017, hence the need to seek alternative sources of revenue for the country. Also, the economy is consumption driven and undiversified. As an illustration, the food import bill of Nigeria has been hovering around USD4bn (about ₦630bn) yearly (Famobgbiele, 2013, Olaolu, 2002). Moreover, the diversification of Nigeria's revenue source from petroleum-based to other sectors is proposed by policy makers as a way forward in transforming the economy from recession to prosperity. In this regard, agriculture is given top priority among the alternative non-oil sectors being considered for improvement in recognition of its role as the backbone and mainstay of Nigeria's economy, contributing about 65% to the GDP before the exploration of petroleum (Famobgbiele, 2013). For this reason, agricultural growth and development would provide a strong foundation for a diversified economy, promote sustainable growth and economic transformation, and in turn sustain the strength of a nation for real economic growth and development.

Despite these important roles, the agricultural sector is still underdeveloped and unexplored. The sector has failed to meet the above expectations due to negligence, and as such, agriculture has relegated its prime position as the main anchor of the Nigerian economy to the petroleum sector. But petroleum price is very volatile and therefore not even very effective in ensuring citizens' welfare and national security in the long run (Ajah, 2014). This is why agriculture is a sector being focused on for actualizing our economic diversification goal by the present and past administrations.

Nigerian governments and some foreign bodies have made deliberate efforts to improve agricultural production, but these efforts have not yielded the expected results. The government has several commercial Agricultural Development Programmes as strategy options for diversifying into non-oil sources of growth (FAO, 2010, Olaolu, 2002). In spite of all this, Nigeria cannot produce sufficient food for its teeming population, which has been estimated to be growing at a rate of 3.2% per annum (NPC, 2006). Nigeria is even listed by the FAO among nations that are unable to meet their food needs from agricultural production due to low investment in agriculture (FAO, 2010, Nwankwa, 2013). Budgetary allocations to agriculture are inadequate and actual expenditures have been very low over the years. Again, young and nondisabled men who can easily adopt farm mechanization are leaving rural areas for urban cities in search of jobs with better payment (Simpa, 2014).

Realizing the enormity of the problems facing agriculture, the FGN launched an Agricultural Transformation Agenda in 2011, which intended to promote agriculture as a business, integrate the agricultural value chain, and make agriculture a key driver of Nigeria's economic growth (Ayoola, 2001). To achieve this agenda, the government implemented the following measures: incentives to encourage domestic import substitution, maximum equity ownership in investment by foreign investors, free transfer of capital, profits, and dividends, zero percent (0%) duty on agricultural machinery and equipment imports, and Pioneer Tax for agricultural investments. Notwithstanding all these measures and other policies, the scenario is still hideous, and Nigeria depends heavily on the oil industry for its budgetary revenue. Nevertheless, all stakeholders believe that if the agricultural sector is properly managed, it would boost the country's gross domestic product and even replace

oil (Ajah, 2014). Considering the above scenario, the study intends to investigate the challenges and prospects of agriculture in the diversification of the Nigerian economy. The research questions are: What are the socioeconomic characteristics of the respondents? What are the challenges facing agriculture in terms of economic diversification? What are the potentials of agriculture that make it a feasible means of diversifying the Nigerian economy? What are the possible sectors that Nigeria can use to diversify its economy? What can be done to motivate farmers to increase their agricultural sector contribution to GDP, generate employment, and guarantee food security?

**Agriculture in the Economic Development and Growth of Nigeria**

Before Nigeria's colonization, our people survived primarily on farming as their major occupation. Until the discovery of oil in Nigeria, agriculture was the most important sector of the economy, accounting for more than two-thirds of colonial Nigeria's export earnings (Olaolu, 2002). As a result, a unified Department of Agriculture was formed after the combination of the North and South protectorates. The major aim of this body; Central Department of Agriculture was to increase the production of export crops for British industrial growth. Consequently, regulations were made to be set and enforce standards in export crop production (Idachaba, 2000). Food crop production was not given attention because there was no problem with food supply; Nigeria was even a food crop exporter (Tiamiyu, *et al.*, 2017). However, a few years later, the contribution of agriculture started to decline due to population explosion, the civil war, and the discovery of oil. There is no adequate visionary planning for sustainable economic growth and development. Under these circumstances, new policies were developed in the post-independence era to actualize more equitable growth in agriculture. For instance, the country was demarcated into zones for the production of various agricultural produce *viz*; the Western Region (cocoa), Northern Region (groundnut), and Eastern Region (oil palm) (Ayola, 2001).

Table 1 shows the contributions of agriculture to total exports in Nigeria during colonial and early post-independence. Agriculture's contribution to exports fell from 81% in 1938 to 64% in 1965 (Olaolu, 2002).

**Table 1: Proportion of Agricultural to Total Exports of Nigeria, 1938–1965**

Items	1938	1946	1950	1955	1960	1965
	<b>Thousand pounds Sterling</b>					
Total Export	7,802	19,442	73,098	102,363	118,824	263,246
Agricultural Exports	6,174	15,742	63,958	85,703	102,408	161,817
Exports of Forest products	147	358	2,451	3,728	7,026	6,511
Total Agric. and forest Products	6,321	16,100	66,409	89,431	109,434	168,328
Exports of Non-agric. Products	1,481	3,342	6,689	12,051	9,390	94,918
Percentage of Exports of Agric. Forest Products to All Exports	81	82.8	90.85	87.4	92.1	64.0

Source: Begun, V.A. 1967: Agriculture in Nigeria, Rome: FAO. P24

As a result of the declining economic contribution of agriculture, some specialized development schemes were initiated and implemented by successive administrations aimed at increasing food production and some of these include: National Accelerated Food Production Programme (NAFPP), Operation Feed the Nation, River Basin and Rural Development Authorities, Green Revolution Programme, Agricultural Development Projects (ADP), The Nigerian Agricultural Land Development Authority (NALDA), National Fadama Development Project

(NFDP), National, Special Programme on Food Security (NSPFS), Root and Tuber Expansion Programme (RTEP), and more recently, Agricultural Promotion Policy (The Green Alternative), Nigeria Incentive Based Risk Sharing for Agricultural Lending (NIRSAL), and Anchor Borrower Programme (The Nation Newspaper, June 1, 2018, Tihamiyu, *et al.*, 2017, Akinbamowo, 2013).

Despite all these interventions, the fortune of agriculture could not be restored. At independence, the contribution of agriculture to GDP was about 60%, but this declined over time to about 31% by the early 1980s (Egwu, 2016). The domestic food supply had to be augmented through large imports. However, the CBN reported in 2012 that the contribution of the agricultural sector to GDP was 42%, having recovered from its abysmal low contribution of 30% in the last decade of the last century, despite all efforts. (Egwu, 2016). This worsening situation of the agricultural sector is shown in Tables 2 and 3 below. The oil sector dominates the revenue sources, and agricultural contributions have been stagnant over the decades at 33%.

**Table 2: Summary of Federal Government Revenue (N' billion)**

Period	Oil Revenue	Non-Oil Revenue	% Share of the Oil Sector
1981–1990	200.81	78.27	72
1991–2000	4359.59	1211.89	78
2001–2010	37999.00	10094.43	79
2011–2013	23714	7817.22	75

Source: Computed from the Central Bank of Nigeria, 2014 Statistical Bulletin, Table B.1.1.

**Table 3: Gross Domestic Product of Nigeria (N' billion)**

Period	Total GDP	Agric Share of GDP	% Share of the Agric Sector
1981–1990	1858.15	566.9	31
1991–2000	30421.53	10009.2	33
2001–2010	172893.66	57321.8	33
2011–2013	120350	39716.4	33

Source: Computed from the Central Bank of Nigeria, 2014 Statistical Bulletin

### Literature Review

Many studies have been conducted on the mono-product economy of Nigeria and why diversification of the Nigerian economy is important. Various suggestions and recommendations have been made on the way forward. Therefore, this section examines some of these studies.

Onodugo, Benjamin & Nwuba (2015) also confirmed that the Nigerian economy has been leaning dangerously on the fragile leg of crude oil for decades, and this has affected job creation and poverty reduction. They added that no country can attain growth and development in a mono-product economy without diversification. Their work examined how diversification into other sectors enhances stable and viable economic growth. However, for effective economic diversification, there should be a paradigm shift in economic policies and political will to implement such changes.

Suberu, Ajala, Akande, Adeyinka (2015) identified that a good percentage of Nigerians live in abject poverty Onodugo I. C., Benjamin A. A, Nwuba, B. N. (2015), unemployment is high, and productivity is at its lowest level. Therefore, they sought possible ways to diversify the productive base of the Nigerian economy. They found that for Nigeria to break loose from the problems inherent in a mono-economy, especially one largely dominated by oil, which is subject to depletion, international price shocks, and unfavourable quota

arrangements, diversification is needed. Therefore, the agricultural sector is as a possible option for diversifying the Nigerian economy.

Shedrack, Daniel, & Chinedum (2021) examined the inherent aberration in Nigeria 's mono-product economy since the discovery of crude oil in 1956 to the total neglect of the other sectors. Overdependence on oil earnings resulted in recession in 2014. The study evaluated the need for the diversification of country 's economy. The scholars found a positive correlation between diversification into other sectors of the economy and sustainable economic growth. It concluded that there are prospects for Nigeria 's economic growth and sustainable development beyond oil exploration if the challenges to diversification are frontally addressed.

Despite some efforts made so far in economic diversification, Nigeria still needs Financial Diversification for National Development as it runs a mono- cultural economy with 85% of its revenue coming from oil and gas exports. Ohunye, Kalu, & Omonona, and Obamen (2018) examined the impact of economic diversification measures taken so far on national development and found that the Nigerian economy has not adequately moved toward the non-oil sector due to challenges such as poor policy makers and policies instruments, poor infrastructure, and corruption. However, these scholars identified some strategies for achieving economic diversification and these include: inner security, a solid education framework, attitude change, openness, boosting the agricultural sector, strengthening the manufacturing sector, and intensifying anticorruption campaigns.

Ovwiroro (2017) investigated the challenges and improvement strategies in the diversification of the Nigerian economy through entrepreneurship and found that challenges such as low capital, poor access to loans, over taxation, inadequate infrastructural facilities, and poor transportation systems affect the diversification of Nigeria's economy through entrepreneurship. However, it was concluded that if concerted efforts are made by the government of the day, these challenges could be overcome and the economy would be diversified through entrepreneurship.

Esu and Udonwa (2015) attempted to answer the big question; 'to what extent can Nigeria gain from diversifying the economy?' using time series data collected over 31 years (1980 – 2011). They use the error correction mechanism (ECM), and the result points to the fact that Nigeria could gainfully tap from its untapped trade potentials, both in the short run and long run, through conscious efforts at diversifying the economy, encouraging large-scale industrialization of the non-oil (real) sector of the economy, emphasizing deepening technology in every trade and investment discourse, and sustaining the recent improvements in the agricultural sub-sector, among others.

Idris and Abdullahi (2023) examined the effect of President Buhari's economic diversification on agricultural output in Taraba State with a focus on the relationships between diversification and economic growth and between economic diversification and agricultural output in Taraba State. The study found that diversification has a positive relationship with economic growth and that an increase in government expenditure, appropriate policy formulation, an increase in soft loans to farmers, subsidies, and incentives are the necessary tools for achieving economic diversification through agriculture to grantee food security.

The study by Abiola (2024) examined the relationship between Nigeria's manufacturing sector and the nation's drive for export diversification. Analysing time series data from 1985 to 2022 using regression and the Johansen co-integration test confirmed the stationarity of all variables at first differenced and a long-run equilibrium relationship between them, respectively. This shows that while their short-term fluctuations may diverge, they

are ultimately bound by a deeper interdependence. This result exposes a weak and negative association between the manufacturing sector and the nation’s drive for export diversification. This indicates the meager contribution of the manufacturing sector to export diversification during this period. To unlock the manufacturing sector’s potential in export growth, create a robust and vibrant manufacturing ecosystem, pulsating with innovation and productivity that would add value to agricultural products

Afrogha and Afrogha (2022) investigated the effects of diversification on the Nigerian economy from 1986 to 2016 using secondary data from the National Bureau of Statistics (NBS) and the United Nations Commission on Trade and Development (UNCTAD) 2018 and analyse them using the ordinary least squares (OLS) method. The results showed that diversification, as measured by agricultural contribution to mining contribution to GDP, had a significant impact on GDP, whereas manufacturing contribution to GDP had a negative relationship with GDP and a negligible impact on economic growth in Nigeria during the period.

This paper intends to revalidate and complement some findings of these previous studies and make recommendations for diversification policy instruments.

**Methodology**

Data were collected from 90 respondents in urban canters namely; Abaji in Federal Capital Territory (FCT), Ogaminana and Otokiti in Adavi Local Government of Kogi State, and Masaka Nasarawa, and Keffi in Nasarawa State. Fifteen respondents were selected from each area using simple random sampling techniques. Among the respondents are farmers, civil servants, traders, and the self-employed. Questionnaires and interview schedules were used for data collection. The data were analyzed using descriptive statistics such as percentage, Likert Scale, pie charts, bar charts, and ranking method.

For the Likert scale, a 5-point scale was used and these are; 5 points = very important, 4 points = important, 3 points = undecided, 2 points = not important, and 1 point = not very important.

$$TotalWeightedscore = \sum X1W1 + X2W2 + X3W3 + X4W4 + X5W5 \text{ --- (i)}$$

$$Weightedmean = \frac{totalweightedscore}{N} \text{ --- (ii)}$$

$$Criticalmean = \frac{5+4+3+2+1}{5} = \frac{15}{5} = 3.0 \text{ --- (iii)}$$

Where; X = number of respondents, W = number of ranks, N = total number of samples

**Decision Rule:** A weighted mean that is either equal to or greater than the critical mean is considered significant and accepted either as a serious challenge or a reliable potential, and if less than the critical mean is insignificant, it is not considered a serious challenge or areliable potential.

**Results and Discussion**

**Socioeconomic Characteristics of Respondents**

The majority of the respondents (55%) are in the age bracket of 41- 60 years. This indicates that they might be conversant with the history of the Nigerian economy. Approximately 60% of the respondents have tertiary education and are part-time farmers (50%) and are either extension officers (22:2%) or academics (22:2%). None of the respondents had less than 10 years of experience. In addition, the respondents were either in service (50%) or retired (33.3%). All of these imply that the responses might be correct in their various responses.

**Table 4: Socioeconomic Characteristics of Respondents**

Characteristics	Frequenc	Percentag	Characteristics	Frequenc	Percentag
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<b>Age (Years)</b>			<b>Years of Experience</b>		
31–40	20	22.2	10–20	30	33.3
41–50	30	33.3	21–30	40	44.5
51–60	25	27.8	31 and above	20	22.2
61 and above	15	16.7	Total	90	100
Total	90	100			
<b>Level of Formal Education</b>			<b>Secondary occupation</b>		
Primary	5	5.6	Part-time farming	60	66.7
Secondary	25	27.8	Others	20	22.2
Tertiary	60	66.6	Non	10	11.1
Total	90	100	Total	90	100
<b>Occupation</b>			<b>Status of the Service</b>		
Farming	25	27.8	In Service	45	50.0
Artisan	5	5.6	Retired	30	33.3
Trading	7	7.8	Not Applicable	15	11.1
Academic	20	22.2	Total	90	100
Politics	13	14.4			
Extension Agents/Officers	20	22.2			
Total	90	100			

Source: Field Survey, 2022

### **Challenges Facing Agriculture-Based Economic Diversification in Nigeria**

Ironically, the issues and challenges have not changed much since the dawn of agriculture in Nigeria. Table 5 shows the lack of credit facilities with a weighted mean of 4.7 as a significant challenge. Credit determines access to all other farm resources; it is not just another resource such as labour, land, equipment and raw materials. One of the reasons for the decline in the contribution of agriculture to the economy is the lack of a formal National Credit Policy and the paucity of credit institutions that can assist farmers (CBN, 2011). The total amount lent to agriculture by the formal financial sector is structurally deficient, insignificant, and inadequate. Therefore, farmers face the problem of limited finances and the vicious circle of poverty. As a result, the dreams of boosting agriculture production have not been achieved, and thus, the persistence of subsistence farming. Even budgetary allocation to agriculture has consistently been inadequate; for example, only 4% of the federal government’s annual total budget has been consistently allocated to the agricultural sector between 2006 and 2013 (Famogbiele, 2013).

Poor post infrastructure is also a significant challenge. Produce from the farm was spoiled due to lack of storage infrastructure and inability to process them and improve their shelf lives. Over 40% of Nigeria’s perishable and non-perishable produce gets spoiled after harvest due to the lack of post-harvest infrastructure such as threshers, driers and processing equipment, storage and transport facilities and electricity to reduce post-harvest losses and improve the shelf life (Olaolu, 2002). Therefore, the availability and quality of post-harvest infrastructure positively impact agricultural productivity.

Insecurity was also identified as a challenge and was significant. The problem of herdsmen, insurgency and kidnapping constitute the insecurity. As a result of this problem, farmers, especially the small-scale ones who produce 98% of Nigerian agricultural products and 95% of agricultural exports (Simpa, 2014), are afraid and no longer go to the hinterland to farm; instead, they manage their small farmlands around their homesteads. Consequently, there are reductions in their farm sizes and output.

The poor public perception of farmers as a problem was also significant. Farming is seen as the occupation of the poor. This is because most farmers, especially the small holders, are poor and illiterate. No farmer wants their child to take after them by choice. In addition, only a few students that go to tertiary institutions to read agricultural-related courses; do so by choice. This justifies the conclusion of the Future Farmers Network (FFN) that the majority of people have a positive notion of agriculture as an industry; however, their perception of an actual career in agriculture is relatively limited; they do not see it as a viable long-term career option. In addition, they affirmed that the perception and profile of agriculture need to be changed from 'dirty labouring work' to professional, exciting and rewarding opportunities and that career in agriculture need to be marketed appropriately and effectively. Furthermore, they are of the opinion that perhaps changing the name of 'agriculture' to either 'agribusiness' or 'food sector' or 'green businesses' would further enhance the appeal of a career in agriculture (FFN, 2001).

The inability of Nigerian farmers to mechanize all farm operations is identified as a challenge of agriculture and is significant. Less than 2% of agricultural operations are mechanized in Nigeria (Faborode, 2001). Despite the fact that mechanization can reduce the cost of labour by at least 60% and increase efficiency of farm operations by 35%–40% (Olaolu, 2002), smallholders have not been able to take full advantage of this, due to their financial limitations (The Nation News Paper on: April 23, 2018). The vast majority of work on small-holder farms is still done exclusively by hand or animal draught power; the tractorization index remains low at 27 tractors to 1000 hectares (Akinbamowo, 2013). This is in spite of the efforts of National Center for Agricultural Mechanization (NCAM) to introduce low-cost machinery and appropriate indigenous technology to reduce drudgery in agricultural activities.

Corruption among policy implementers, farmers, and other stakeholders is the greatest cankerworm and a significant impediment to agricultural development and growth in Nigeria. This confirms the report of the Corruption Perceptions Index released by Transparency International that Nigeria ranks 134th out of 180 countries surveyed in 2010 (Olusola and Ademola, 2014). For example, the 'missing' N200bn CACS fund in 2010, however, later recovered without accrued interest. Again, it is estimated that Nigeria has lost over N10tn in the last two decades to corruption (this accounts for not less than 40% of public expenditure) due to weak institutions (Olushola and Ademola, 2014). Agricultural developing finance does not make any positive impact, unless and until the challenge of economic corruption is effectively contained.

Poor marketing channels are another identified and significant challenge facing agriculture. The majority of farmers lack access to market information. They do not receive good prices for their produce; and this discourages them from increasing their farm size and invariably output the following year. Many farmers suffer losses almost every year. According to Olaolu, (2002), the gap between farm and market prices is usually wide due to the activities of indispensable middlemen. Again, in the absence of market information, opportunistic behaviour as cheating is exhibited by traders and other market actors. Therefore, there is a need for timely



access to market information that helps farmers make well-informed decisions about what crops to plant and where to sell their produce and buy inputs (Mgbenkaet *al.*, 2015).

Poor policy implementation is another significant challenge identified. There is poor translation and articulation of policy prescription into an implementable program. Some policies are tactically over by an unintended beneficiary to the disadvantage of farmers and other agricultural operators, while others are either disjointed or inconsistent or summersault. Equally important, there is always a lag between project costs and budgetary provisions. Similarly, the new administration jettisons the policies of the predecessor to start a new policy of its own, which is soon dropped by the successor, with no continuity (Olaolu, 2002). All these factors contribute to the failure of the agriculture sector.

Inadequate agricultural data was also identified as a challenge, and it is significant. The confusion in the agricultural sector is that no one can tell you how many farmers Nigeria has. Agricultural planning and policy formulations are based on available data. Policy formulations, monitoring and evaluation, and impact assessment based on inadequate databases might be difficult to implement and targets unachieved. According to Simpa (2016), no meaningful planning can occur without adequate and reliable data, and the entire agricultural data collection, collation, and processing process requires deliberate efforts. Therefore, governments should have a profile of their farmers and know their population and locations.

Inadequate irrigated agriculture is another challenge, but it is not significant. Most farmers are idle for some period of the year and; crops are not produced all year round. Farmers solely depend on rain-fed agricultural production. Despite Nigeria’s vast potential in irrigated agriculture, most Nigerian farmers are in a state of hibernation for 4–6 months a year, engaging in almost no productive activity. In other words, our farmers only work during the rainy season and spend the rest of the year practically hibernating. Out of 300,000 hectares used for irrigation, only 20% has been developed (Olaolu, 2002).

Poor access to agricultural production information is a challenge but is also not significant. The information needs of smallholder farmers are grouped into five headings: agricultural inputs; extension education; agricultural technology; agricultural credit; and marketing (Mgbenkaet *al.*, 2015), and farmers are lacking in all of these. This results in their ineffectiveness. This challenge is a result of poor connectivity, illiteracy, and the contents and costs of information packages (Nmaduet *al.*, 2013). This information poverty led to a low level of agricultural commercialization; trapping small-scale farmers in subsistence farming and keeping the producers supplying low-paying market outlets (Nmaduet *al.*, 2013). According to Mgbenkaet *al.* (2015), the factors that cause this information poverty problem are status differences between extension agents and their clients; agents' inadequate knowledge of how communication works; and the extension’s general lack of interest in traditional media (Nmaduet *al.*, 2013).

**Table 5: Challenges Facing Agricultural-Based Economic Diversification in Nigeria**

Likert items	No. of Respondents	Weighted score (X)	Weighted Mean	Remark
Inability to Mechanize all Operation	90	364	4.0	**
Lack of Credit Facilities	90	425	4.7	**
Poor Policy Implementation	90	275	3.1	**
Poor Access to Information	90	250	2.7	*
Poor Marketing Channels	90	320	3.5	**
Corruption in all places	90	346	3.8	**

Poor Public Perception of Farmers	90	375	4.1	**
Inadequate irrigation agriculture	90	260	2.8	*
Poor Post Harvest Infrastructure	90	366	4.6	**
Inadequate agricultural Data	90	270	3.0	**
Insecurity	90		4.4	**
<b>Critical mean</b>			<b>3.0</b>	$\geq 3.0 = **$ , $< 3.0 = *$

Source: Field Survey, 2022, \*\* Significant and accepted as a serious challenge

\* Not significant and not accepted as a serious challenge.

### **Prospects of Agricultural-Based Diversification of the Nigerian Economy**

Nigeria's Agriculture Sector has enormous potential, with an opportunity to grow output by 160% from USD 99 billion at present to USD 256 billion by 2030 (CBN, 2011). Table 6 shows that promising agriculture policy formulation is one of the significant and accepted as reliable agricultural prospects identified. Every administration takes a critical look at agriculture and develops policies to promote it in order to increase its output and contribution to GDP. For example, the Agricultural Promotion Policy (the green alternative) and the present government's Anchor Borrower Programme and Economic Recovery and Growth Plan have aided agricultural contributions to exports to increase from N6.7billion in 2016 to N170 billion in 2017 (The Nation Newspaper, Friday June, 2018).

Research on all aspects of agricultural production and distribution of technologies by universities, polytechnics, and research institutes coordinated by the Agricultural Research Council of Nigeria is ongoing. These researches are financed by FGN, NGOs, and agencies. Research provides solutions to agricultural productivity limitations, evolves new technologies to meet the needs of farmers, and disseminates research results to farmers through extension services (Akinbamowo, 2013, Olaolu, 2002).

The availability of human resources and intelligence in Nigeria is another significant potential identified. Nigeria's population is approximately 180 million (estimated using 3.2% growth rate) with a sex ratio of 1:1 (NPC, 2006; NBS, 2012) and these guarantee labour and intelligence and active demand (market) for agricultural production and agricultural output, respectively. According to the World Bank, the Nigerian population will rise to 391 million by 2050 (The Nation Newspaper, Friday June, 2018).

Access to available land is another significant potential for agriculture. Eighty percent of the total land mass of Nigeria is arable land, and only 50 percent of this is currently under cultivation and 36million hectares are unutilized (Olaolu, 2002). It has been stated that 65% of the world's remaining arable land rests on Nigerian shores (The Nation Newspaper, Friday June, 2018). Land decree, 1976; also invested land ownership on the State governments; making land acquisition and ownership easier for intending farmers.

Development and increase in irrigation projects in Nigeria are also identified as potential sources of agricultural production. To solve the problems of global warming and the unpredictability of rainfall, the FGN has embarked on the development of water resources, such as the establishment of River Basin Development Authorities to harness water resources for agricultural productivity (Olaolu, 2002). This will enable farmers to be engaged all year round and not part-time or sometimes hibernating.

Extension services are being improved and as such, it is another identified prospect of agriculture in diversifying the Nigerian economy. According to Simpa, (2016), a greater number of farmers are becoming aware of extension services as the presence of extension agents is felt by the farmers.

Work on fertilizer project is identified as a prospect and is significant. For instance, the FGN recently commissions new fertilizer plants in collaboration with the Moroccan government.

The presence of six distinct agro-ecological environments, diversity of crops and livestock, and availability of water are other prospects though not significant. These make possible the production of variety crops and animals. According to Olaolu (2002), there are 110 to 185 days of rain in a year, making the production of many crops possible twice a year.

**Table 5: Prospects of agricultural-based economic diversification**

<b>Likert items</b>	<b>No. of Respondents</b>	<b>Weighted score (X)</b>	<b>Weighted Mean</b>	<b>Remark</b>
Availability of Human Resources and Intelligence	90	387	4.3	**
Availability of Water	90	250	2.7	*
Distinct agroecology and diversity of crops	90	290	2.2	*
Researches Ongoing	90	395	4.4	**
Activities of the Extension Agents	90	365	4.0	**
Work on Irrigation Projects	90	370	4.1	**
Promising Agricultural Policy Formulation	90	413	4.5	**
Access to Arable Land	90	385	4.2	**
Work on Fertilizer Projects	90	330	3.6	**
<b>Critical mean (CM)</b>			<b>3.0</b>	$\geq 3.0 = **$ $< 3.0 = *$

Source: Field Survey, 2022, CM  $\geq 3.0$ \*\* Significant and accepted as a reliable potential

CM  $< 3.0$ \* Not significant and not accepted as a reliable Potential

### **Possible sectors for Nigerian Economic Diversification**

Figure I indicate that among the sectors available to Nigeria to diversify its economy, agriculture is the only major sector, as confirmed by 40% of the respondents. Agriculture is followed by solid mineral and processing and then the power and gas sectors. This is justified by Pitan(The Nation Newspaper, Friday June, 2018), who said, “Agribusiness is the only option to help Nigeria diversify her revenue base, reduce imports, create job and develop rural areas”.

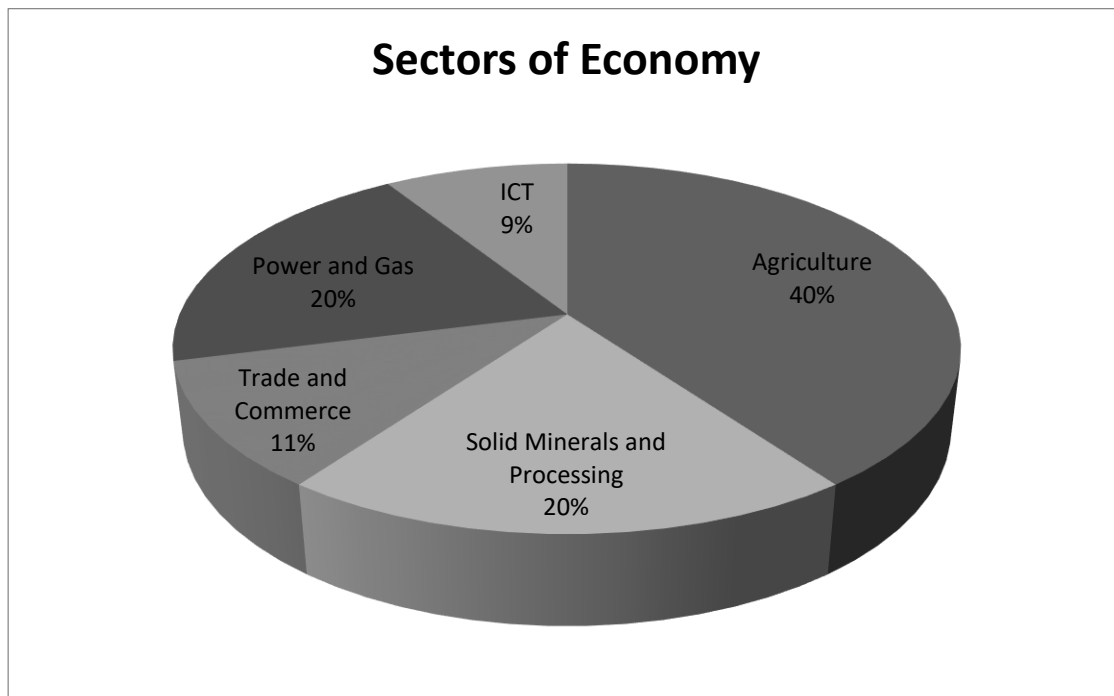


Figure I: Possible sectors for diversification of the Nigerian economy

### **Fringe Benefits Motivating Farmers to Increase Agricultural Production**

Figure II shows that 90% of the respondents agreed that farmers can be motivated if they are represented at the policy formulation level, as this gives them a sense of belonging and recognition. This confirms the problem stated by FMA (2001) that the lack of involvement of beneficiaries in agricultural programme designs and implementations arising from under-rating of the knowledge, ability, capability, and sensitivity of small-scale farmers contributes to constraints in achieving policy objectives. 80% and 70% of the respondents agreed that agricultural graduate internship schemes and special salary scales for agriculturists, respectively, can boost agricultural production. Because of these, the youth might choose Agriculture as a profession, feel important and recognized as their counterparts in Medical Sciences and Engineering. Approximately 60% of the respondents confirmed that retirement and health insurance schemes and intensive ranch development can boost the morale of farmers and invariably lead to an increase in agricultural contributions to GDP. Fifty percent and forty percent of the respondents agreed that agricultural shows and visits to big farms by smallholders and annual conferences for small-scale farmers can motivate farmers to increase production, respectively.

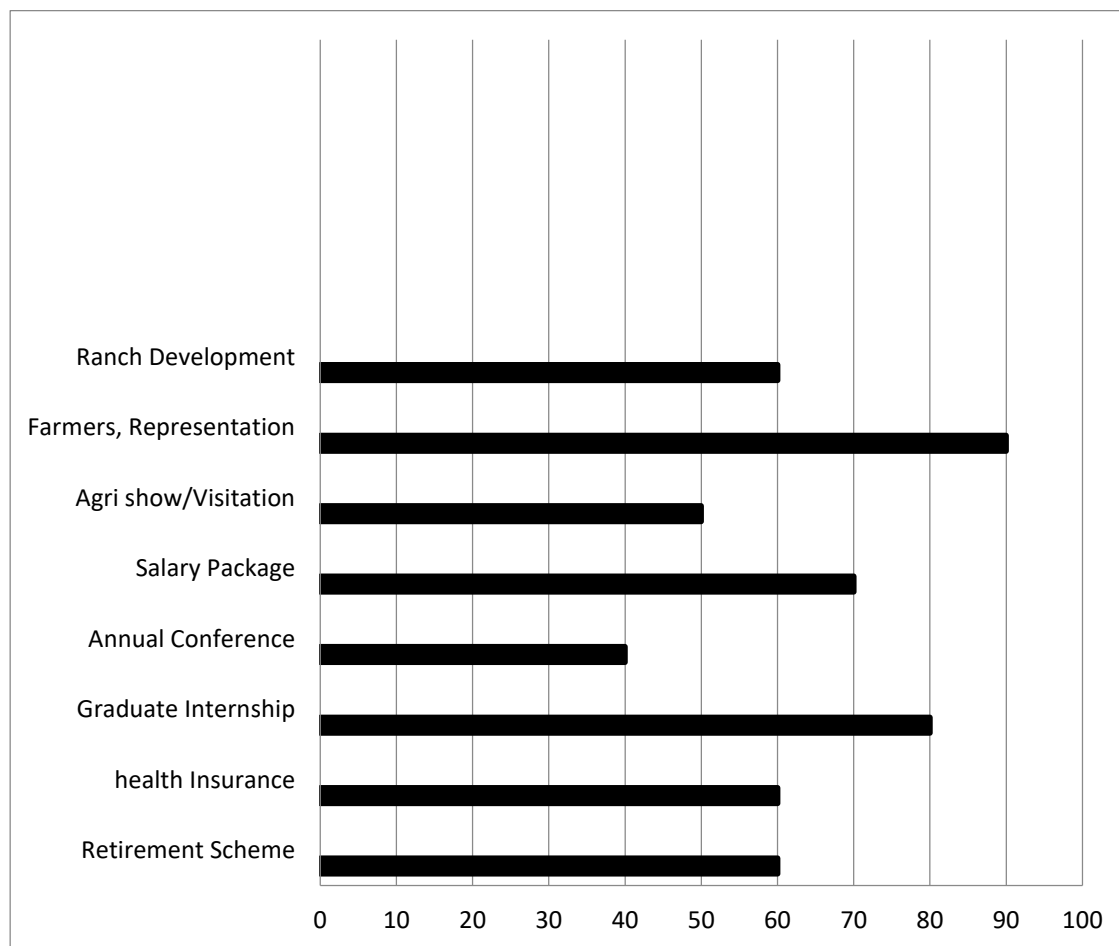


Figure II: Fringe benefits to motivate farmers. Respondents allowed multiple choices

### **Conclusion**

The respondents are educated and experienced adults who are in service but are part-time farmers. Nigerian agriculture faces many significant challenges such as lack of credit facilities, poor post-harvest infrastructures, insecurity, poor public perception, inability to mechanize all farm operations, corruption, poor marketing channels, poor policy implementation, inadequate agricultural data, poor access to production information, and inadequate irrigated agriculture. On the other hand, Nigerian Agriculture has some potential that if exploited can give hope to agriculture, and these include: promising agricultural policy formulation, research development, availability of human resources, availability of land, increase in irrigation projects, improvement in extension service, and work on fertilizer projects. Agriculture (40%) is the major identified sector for economic diversification, but the farmers need to be motivated through some programmes and schemes such as farmers' representation at policy making, graduate internship scheme, special salary package for agriculturists, ranch development and retirement and health insurance scheme.

### **Recommendations**

Based on the above findings, the study recommends that:

1. Public perception of farmers could be improved by making farming less drudgery, lucrative, and attractive. These could be achieved by providing farmers with credit facilities, low-cost machinery to mechanize all farm

operations by small holders in particular, post-harvest infrastructures to reduce post-harvest losses, irrigation facilities; and motivating farmers through retirement schemes, health insurance schemes, special salary packages for agriculturists, agricultural graduate internships, and ensuring that farmers are represented at the policy formulation level. Farmers, especially the youth, could also be encouraged by changing the nomenclature 'agriculture' to terms such as, 'food sector' or 'green business' or 'agribusiness'

2. For security, efforts to ensure the safety of lives and properties of farmers should be honestly intensified with dedication and definite actions.

3. Corruption should be fought at all levels without fear or favour and failed policy implementers and those who manipulate policies for their personal benefit should be sanctioned to serve as a deterrent to others and to curb policy failures due to selfish interests.

4. Access to production and market information should be enhanced by encouraging the collection, collation, and processing of agricultural data and dissemination of the results to farmers without delay. Sources of information should be made cheap or at no cost to farmers.

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