

# The Roles of Bank of Agriculture (BOA), Bauchi State in the Provision of Financial Support to Rice Farmers in Bauchi Local Government Area of Bauchi State

Kingsley Offor, Mustapha Isah & Lawan Garba

*A strong and efficient agricultural sector has the potential to enable a country feed its growing population, generate employment, earn foreign exchange and provide raw materials for industries. Aside the problem of poor access to land and modern technology, the major bane of Nigeria agricultural development commonly cited in the literature is low investment or credit facility and other agricultural facilities like pesticides, improved seeds and fertilizers. Agriculture is the predominant activity in most of the zones in Nigeria, percentage of persons working in agriculture ranges between 24.4 to 85.1 percent across zones in Nigeria. With respect to states, the activity ranges between 2.4 to 91.7 per cent, majority of states having over 50 percent. It is in the light of the above that this study tends to examine the extent of agricultural facilities and the factors responsible for the level of agricultural facilities to Rice farmers in Bauchi state and Nigeria at large. Questionnaires were administered and analyzed using probability sample method and a descriptive statistics which revealed that the major problem of rice farmers in Bauchi state is the lack of credit facilities granted by bank of agriculture Bauchi state. Recommendations were made to improve the efficiency of rice and other commodity farming in Bauchi and Nigeria at large.*

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background to the Study

A strong and efficient agricultural sector has the potential to enable a country feed its growing population, generate employment, earn foreign exchange and provide raw materials for industries. Aside the problem of poor access to land and modern technology, the major bane of Nigeria agricultural development commonly cited in the literature is low investment or credit facility and other agricultural facilities like pesticides, improved seeds and fertilizers (Ajayi and Ajala, 1997; Garba, 2000; Akpobo, 2007).

Agriculture is the predominant activity in most of the zones in Nigeria, percentage of persons working in agriculture ranges between 24.4 to 85.1 percent across zones in Nigeria. With respect to states, the activity ranges between 2.4 to 91.7 per cent, majority of states having over 50 percent. (Matthew, & Adegboye, 2010). It is in the light of the above that this study tends to examine the extent of financial support and the factors responsible for the level of financial support to Rice farmers in Nigeria.

In today's world where rice has become everyone's meal but has posed a lot of hardship to those who wish to buy rice for their daily consumption with the current market price of rice at #500

for (1 mudu) and 18500 for a bag. With this current trend in the economy and the increase in the price of rice, it is only right for cereals and grains farmers to take an urgent step in the improvement of rice and other cereals production to full exportation potentials. Farmers in general, are faced with the challenges of sourcing for funds and other agricultural facilities from especially the DMBs and it is against this background that this study will examine the roles of bank of agriculture in the provision of financial support to rice farmers residing in Bauchi state.

Rice was before now a poor man's food but with the recent hike in the price of rice, farmers, businessmen, the government, and other consumers of rice became interested in knowing the reason behind these continues skyrocketed increase in the price of rice and with these questions, this research topic 'The Role of Bank of Agriculture, Bauchi branch in the provision of financial support to rice farmers in Bauchi local government' tries to find out whether the Agricultural facilities (credit, chemicals, seed, implements, land and both economic and loan facilities) to rice farmers are either sufficient or insufficient.

According to Dayo, Ephriam, John and Omobowale, (2009), government directly participated in the provision of many farm inputs and services and in the production, processing and marketing farm commodities and also introduced the Structural Adjustment Programme (SAP) in 1986, to address the economic distortions between 1986–1989. Thereafter, stagnation and decline were both observed and Dayo, (2009), opined that devaluation of Naira led to higher domestic prices of imported goods including farm inputs (principally, agrochemicals and fertilizers). Secondly, neither the interest-rate nor the exchange rate liberalization was implemented to its logical

conclusion which led to low credit facility and thirdly, Access to Inputs (Seeds/ Seedlings, Fertilizer, Livestock/ Fish feeds etc.)

Access to inputs remains a challenge for achieving optimal productivity of agricultural outcomes. Attempts to address this issue in the previous government administration have resulted in subsidy programmes (e.g. GES) which have been characterized by late or non-delivery of inputs. Other problems encountered include delivery of sub-standard or counterfeit inputs, and exclusion of rightful beneficiaries. Therefore, the policy objective is to increase productivity by ensuring access to timely, high quality and price competitive inputs. Over the years, several agricultural programs have been introduced to reduce abject poverty among rural dwellers, mostly farmers, in Sub-Saharan Africa (SSA). Some of these programs include: United Nations Development Programme (UNDP), International Fund for Agricultural Development (IFAD), Agricultural Development Programs (ADP), Food and Agricultural Organization (FAO), and National Economic Empowerment and Development

(NEED), (The Directorate of Food, Roads and Rural Infrastructure (DFRRI), National Orientation Agency (NOA), National Accelerated Food Production Programme (NAFPP), Green Revolution (GR), Operation Feed the Nation (OFN), etc. (IFAD 2001). Agricultural development programs indicate a significant influence on increased food stuff production in Isan Ekiti state except for increases access of farmers to credit facilities in the area. With these above problems it is pertinent to know that rice farmers are faced with enormous challenges ranging from land acquisition, provision of fertilizers and other pesticides and more importantly the provision of financial support by bank of Agriculture to rice farmers in Nigeria as well as Bauchi state as a case study.

## 1.2 Problem Statements

Before now, agriculture has been Nigerian's major source of revenue generation with major food items like Rice and groundnut in the north and palm oil and cassava in the south. But with the discovery of crude oil in the southern part of the country, agriculture was abandoned and left to the mercies of importation which has today taking away our glory in agriculture. Although the major problems of agriculture has been traced to poor financing by both the government and the private investors. Lack of adequate and proper planning in the implementation of both pre-harvest and post-harvest financing of farmers, especially the rice farmers, and this lead to poor production of rice and other commodities in Nigeria

The issue of agricultural policies like the fadama 1, 2 and 3 are still yet to be fully utilized by rice farmers. The diversion of fertilizers by especially the middle-men has made fertilizers unaffordable and inaccessible to rice farmers anywhere in the country. In the conclusions of Ayanda and Ogunsekan (2012), BOA is a good source of capital to the farmers and it has the potential to create employment for the educated youth and female folks of the rural areas and thus reduce rural to urban migration. The study also showed that farmers were unable to repay the loan due to high interest rate, delayed farm output and weak recovery efforts of the officials of BOA. The loan scheme made farming attractive to the youth and especially the educated elites who ordinarily will prefer white collar job to farming, Ayanda and Ogunsekan 2012). What is left to be done is an empirical analysis of the effective and efficient provision of agricultural facilities to Bauchi rice Farmers.

## 1.3 Objectives of the Study

The main objective of this study is to assess the roles of Bauchi Bank of Agriculture in the provision of financial support to rice farmers in Bauchi local government area while the specific objectives are:

Assessing the volume of credit facilities granted to rice farmers in Bauchi local government by BOA.

Examining accessing agricultural loan facilities by rice farmers in Bauchi State

Evaluating the rice farmers' level of accessibility to credit granted by BOA

#### **1.4 Research Questions**

This study attempts to answer the following research questions in carrying out the research, thus;

1. To what extent does the volume of credit facilities provided by BOA affects rice farmers in Bauchi local government?
2. To what extent does the accessibility of credit loan affects Bauchi rice farmers?
3. What are the effects of cost of finance provided by BOA in influencing rice production in Bauchi local government?

#### **1.5 Hypotheses of the Study**

From the above problem statement and objectives, the following hypotheses were formulated:

H<sub>01</sub> the volume of credit facilities granted to rice farmers in Bauchi local government does not have any impact in sourcing for loan from BOA.

H<sub>02</sub> there is no accessibility to credit facilities granted by BOA to rice farmers in Bauchi local government.

H<sub>03</sub> there is no significant impact on the cost of loan granted to rice farmers in the production of rice in Bauchi

### 1.6 Significance of the Study

The project concluded shall benefit; the academia, rice farmers and the government

The Academia: students and researchers will know the extent to which to project shall cover and what is yet to be done for further research.

Rice farmers: there will know the roles played by Bank of agricultural in the provision of agricultural faculties so as to boost rice production in Nigeria

Government: important policies shall be made in order to boost rice production in Nigeria and the need to increase loan and other agricultural facilities to rice farmers.

### 1.7 Scope and Limitations of the Study

Due to the available scarce resources, this study will be carried out within Bauchi local government within the period of ten (10) months that is, April to January, using only primary data. The assessment shall be on the volume of Finance, accessibility to finance and cost of finance. While carrying out this study the following challenges were encountered; the sourcing for respondents to fill the questionnaires and the retrieval of administered questionnaires.

### 1.8 Area of Study

Bauchi State occupies a total land area of 49,119 km<sup>2</sup> representing about 5.3% of Nigeria's total land mass and is located between latitudes 9° 3' and 12° 3' north and longitudes 8° 50' and 11° east. The state is bordered by seven states, Kano and Jigawa to the north, Taraba and Plateau to the south, Gombe and Yobe to the east and Kaduna to the west. Bauchi state is one of the states in the northern part of Nigeria that span two distinctive vegetation zones, namely, the (Sudan

savannah and the Sahel savannah. The Sudan savannah type of vegetation covers the southern part of the state. Here, the vegetation gets richer and richer towards the south, especially along water sources or rivers, but generally the vegetation is less uniform and grasses are shorter than what grows even farther south, that is, in the forest zone of the middle belt. The Sahel type of savannah, also known as semi-desert vegetation, becomes manifest from the middle of the state as one moves from the state's south to its north. This type of vegetation comprises isolated stands of (thornysrubs. On the other hand, the southwestern part of the state is mountainous as a result of the continuation of the Jos Plateau, while the northern part is generally sandy. The vegetation types as described above are conditioned by the climatic factors, which in turn determine the amount of rainfall received in the area. For instance, the rainfall in Bauchi state ranges between 1300 mm per annum in the south and only 700 mm per annum in the extreme north. This pattern is because in the West Africa sub-region, rains generally come from the south as they are

carried the southwesterly. There is therefore a progressive dryness towards the north, culminating in the desert condition in the far north. So also is the case in Bauchi state.

Consequently, rains start earlier in the southern part of the state, where rain is heaviest and lasts longer. Here the rains start in April with the highest record amount of 1300 mm per annum. In contrast, the northern part of the state receives the rains late, usually around June or July, and records the highest amount of 700 mm per annum. In the same vein, the weather experienced in the south and the north varies considerably. While it is humidly hot during the early part of the rainy season in the south, the hot, dry and dusty weather lingers up north. In addition to rainfall, Bauchi state is watered by a number of rivers. They include the Gongola and Jama'are rivers. (Wikipedia, 2016). The Gongola River crosses Bauchi state in Tafawa Balewa Local



Government Area in the south and in Kirfi and Alkaleri Local Government Areas in the eastern part of the state, while the Jama'are River cuts across a number of Local Government Areas in the northern part of the state. Moreover, a substantial part of the Hadeja-Jama'are River basin lies in Bauchi state, which along with various fadama (floodplain) areas in the state provides suitable land for agricultural activities. These are further supported by the number of dams meant for irrigation and other purposes. These include the (Gubi and (Tilde-Fulani dams. There also lakes such as the (Maladumba Lake in Misau Local Government Area that further provide the necessary conditions to support agriculture (Wikipedia, 2016).

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## CHAPTER TWO

### 2.0

### LITERATURE REVIEWS

## 2.1 Introduction

This chapter discusses related literature on the roles of Bank of agriculture in the provision of financial support to rice farmers, with special regards to rice farmers in Bauchi local government area. Conceptual and theoretical frame work/issues of loan facilities granted to farmers are reviewed.

## 2.2. Historical background of rice farming in Nigeria

Rice is the **seed** of the **grass** species **Oryza sativa** (Asian rice) or **Oryza glaberrima** (African rice). As a **cereal grain**, it is the most widely consumed **staple food** for a large part of the world's human population, especially in Asia. It is the agricultural commodity with the third highest worldwide production, after **sugarcane** and **maize**, according to 2012 **FAOSTAT** data.



**Oryza sativa** with small **wind-pollinated** flowers Photo by the **IRRI**

Since a large portion of maize crops are grown for purposes other than human consumption, rice is the most important grain with regard to human nutrition and caloric intake, providing more than one-fifth of the **calories** consumed worldwide by humans.

Wild rice, from which the crop was developed, may have its native range in [Australia](#). Chinese legends attribute the domestication of rice to [Shennong](#), the legendary emperor of China and inventor of Chinese agriculture. Genetic evidence has shown that rice originates from a single domestication 8,200–13,500 years ago in the ([Pearl River](#) valley region of [Ancient China](#)). Previously, archaeological evidence had suggested that rice was domesticated in the [Yangtze River](#) valley region in China, from East Asia, rice was spread to Southeast and South Asia.

Rice was introduced to Europe through Western Asia, and to the Americas through European colonization.



Rice can come in many shapes, colours and sizes. Photo by the [IRRI](#).

There are many varieties of rice and culinary preferences that tend to vary regionally. In some areas such as the Far East or Spain, there is a preference for softer and stickier varieties. Rice, a [monocot](#), is normally grown as an [annual plant](#), although in tropical areas it can survive as a [perennial](#) and can produce a [ratoon](#) crop for up to 30 years. The rice plant can grow to 1–1.8 m (3.3–5.9 ft) tall, occasionally more depending on the variety and soil fertility. It has long, slender leaves 50–100 cm (20–39 in) long and 2–2.5 cm (0.79–0.98 in) broad. The small [wind-pollinated](#) flowers are produced in a branched arching to pendulous [inflorescence](#) 30–50 cm

(12–20 in) long. The edible seed is a grain (*caryopsis*) 5–12 mm (0.20–0.47 in) long and 2–3 mm (0.079–0.118 in) thick.



*Oryza sativa*, commonly known as Asian rice

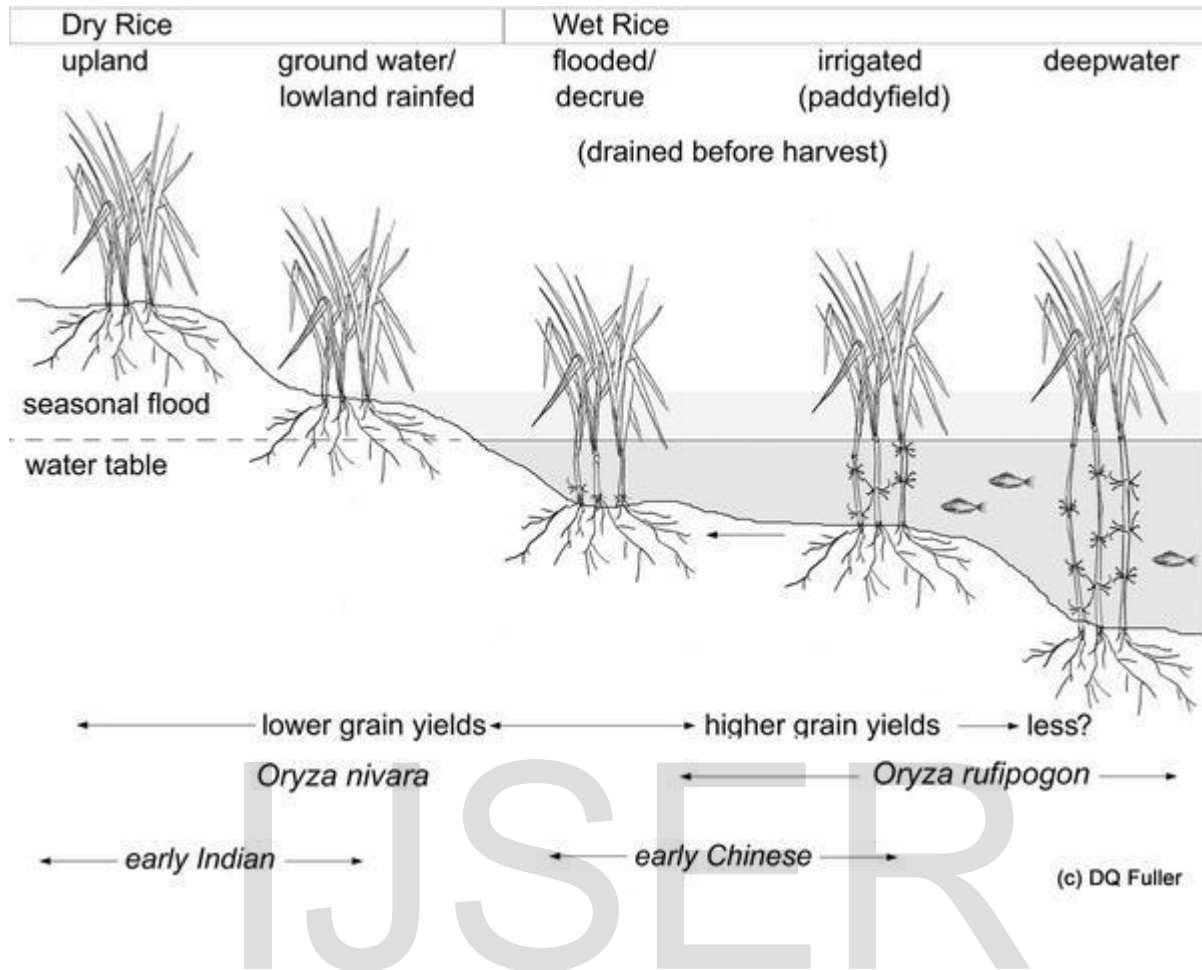
Rice cultivation is well-suited to countries and regions with low labor costs and high rainfall, as it is labor-intensive to cultivate and requires ample water. However, rice can be grown practically anywhere, even on a steep hill or mountain area with the use of water-controlling terrace systems. Although its parent species are native to Asia and certain parts of Africa, centuries of trade and exportation have made it common place in many cultures worldwide.

The traditional method for cultivating rice is flooding the fields while, or after, setting the young seedlings. This simple method requires sound planning and servicing of the water damming and channeling, but reduces the growth of less robust weed and pest plants that have no submerged growth state, and deters *vermin*. While flooding is not mandatory for the cultivation of rice, all other methods of *irrigation* require higher effort in *weed* and *pest control* during growth periods and a different approach for fertilizing the soil.

The name **wild rice** is usually used for species of the genera (**Zizania** and **Porteresia**, both wild and domesticated, although the term may also be used for primitive or uncultivated varieties of **Oryza**.

According to UCL, (2013) Rice is highly diversified. It is cultivated from highly managed and irrigated paddy fields in temperate northeast Asia (approaching 40 degrees of latitude) to metres deep water in tropical river deltas; it is cultivated from sea-level to more than 2000 metres in parts of the Himalayas (in Nepal and Yunnan). Across this ecological and geographical variation rice has a wide range of local ecologies. One of the key aspects of variation is how wet the conditions are in which rice is grown from dry rain-fed rice (which still requires at least 800 mm of rainfall) to wet and flooded conditions. The image below illustrates the spectrum from drier to wetter rice cultivation systems.

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Dry to Rain-fed – water levels fluctuates according to season and growing period and can be subdivided into upland and lowland rain-fed rice. About 13% of rice is upland type.

Decree agriculture, of flooded rice is grown in the shallow water of wet season flooding. The practice is especially prominent in West African rice production on the Niger River but similar systems are found in Asia and were probably once more widespread.

Irrigated – fully controlled floodwater is kept shallow. This is what we associate with typical "paddy" fields. Some rice grown at higher elevations well-maintained terraces can be classed as this type. Deepwater - flood water can rise to more than 50cm (even up to several metres) (UCL, 2013).

Rice can be grown in different environments, depending upon water availability. Generally, rice does not thrive in a waterlogged area, yet it can survive and grow herein and it can also survive flooding (UCL, 2013). Lowland, rain fed, which is drought prone, favors medium depth; waterlogged, submergence, and flood prone Lowland, irrigated, grown in both the wet season and the dry season Deep water or floating rice Coastal wetland.

Upland rice is also known as Ghaiya rice, well known for its drought tolerance

According to (UCL, 2013), in a recent study, scientist have found a link for differences in human culture based on either wheat or rice cultivating races since ancient times but few among to mention are;

Africa

African rice has been cultivated for 3500 years. Between 1500 and 800 BC, *Oryza glaberrima* propagated from its original centre, the Niger River delta, and extended to Senegal. However, it never developed far from its original region. Its cultivation even declined in favour of the Asian species, which was introduced to East Africa early in the Common Era and spread westward. African rice helped Africa conquer its famine of 1203.

## 2.3 Conceptualization

### 2.3.1 Concept of credit facilities in Nigeria

Credit (from Latin credit, "(he/she/it) believes") is the (trust which allows one party to provide money or resources to another party where that second party does not reimburse the first party immediately (thereby generating a debt), but instead promises either to repay or return those resources (or other materials of equal value) at a later date (Merriam webster online, 2015). In other words, credit is a method of making reciprocity formal, legally enforceable, and extensible

to a large group of unrelated people, (Simkovic, Michael, 2016). The resources provided may be financial (e.g. granting a **loan**), or they may consist of **goods or services** (e.g. consumer credit). Credit encompasses any form of deferred payment, ((*O'Sullivan*, & Sheffrin, 2003). Credit is extended by a **creditor**, also known as a **lender**, to a **debtor**, also known as a **borrower**. Credit does not necessarily require money. The credit concept can be applied in barter economies as well, based on the direct exchange of goods and services. However there are risks involved in giving out loan or credit facilities thus;

### 2.3.2 Credit Risk

A credit risk is the risk of (**default** on a debt that may arise from a borrower failing to make required payments. In the first resort, the risk is that of the lender and includes lost **principal** and **interest**, disruption to **cash flows**, and increased **collection costs**. The loss may be complete or partial. In an efficient market, higher levels of credit risk will be associated with higher borrowing costs. Because of these measures of borrowing costs such as **yield spreads** can be used to infer credit risk levels based on assessments by market participants.<sup>[3][4]</sup>

To reduce the lender's credit risk, the lender may perform a **credit check** on the prospective borrower, may require the borrower to take out appropriate insurance, such as **mortgage insurance**, or seek (**security** over some assets of the borrower or a **guarantee** from a third party. The lender can also take out insurance against the risk or on-sell the debt to another company. In general, the higher the risk, the higher will be the **interest rate** that the debtor will be asked to pay on the debt. Credit risk mainly arises when borrowers are unable to pay due willingly or unwillingly. However, in the study of Dayo e tal, (2009), they observed that agricultural loans are often short-term with fixed repayment periods which may not suit annual cropping, especially when loan release is not in tune with growing cycles of crops. Short-term loans are



also unsuitable for livestock production; thus, loan terms must flexibly relate to cash flows in the target business, the input demand/supply structure, and computable risks in the business.

Yet there are risks involved in granting loan which have caused a lot of challenges to farmers, especially the rice farmers who usually don't have the collateral demanded by the banks who are willing to grant such facilities of credit. Also the risk emanating from agricultural activities which are sometimes inevitable, for example drought, pest and bacteria disease, theft and other factors, which Dayo, et al (2009), in their study 'Constraints to increasing Agricultural Productivity in Nigeria' reveals that various constraints mitigating against agricultural production in Nigeria include; poor agricultural facilities, poor and untimely release of funds and high offshore cost of equipments, low fertilizer use, poor funding and coordination of agricultural extension and low market efficiency are among others.

### 2.3.3 Conceptual Framework

The concepts of Umoren, Edet, & Sunday, (2014), on the default of loan by farmers in Nigeria shall be adopted for the sake of this project because it contains the reasons for loan default which is a major reason why banks refuse to make funds available for credit to farmers in Nigeria.

### 2.3.3 Tobit model

This model is on the analysis of loan default by farmers in Nigeria by Umoren, et al (2014) which is an econometric analysis and states based on the result of the Tobit model shows that 12 explanatory variables are significant at various levels of probability. These significant variables includes: age of Agricultural Credit Guarantee Scheme (ACGS) loan beneficiaries, family dependency level, total farm cost, farm income, other loan scheme, visits by officers, time interval between loan application and drawdown, loan duration, government policies, years of

experience, loan size as well as average interest rate paid. In the conclusion of Umoren, et al (2014), there is the absence of government policy on rice production and import despite increasing internal demand, failure of government to assist in processing technology with consequent quality problems in comparison to imported rice. The following recommendations were made by Umoren et al (2014); appropriate policies should be directed towards farmer's re-orientation with regards bank loans, promotion of credit culture and discipline through client's education and moral persuasion, government policies to favor farm cost reduction should be encouraged.

#### 2.3.4 Conceptual model

Tobit model as adapted in the works of Umoren, et al (2014), shall also be adapted in this work to look into the variables (dependent and independent variables), in the study. The independent variable is the provision of agricultural facilities like credit financing which include; cost of finance, volume of credit and cost of credit finance etc, while the dependent variable is improved rice production which can be determined by an increased production, marketing, sales and profit.

#### 2.4. Theoretical Reviews

It is important to discuss the theories related to finance as well as the growth in the rice production in Nigeria.

##### 2.4.1 Theories of Finance, Entrepreneurship and Growth

This theory was propounded by King and Levike (1993), the work was improved from the works of Joseph Schumpeter and Frank Knight. Schumpeter believes that people come up with innovative ideas and business because they desire profit and he is of the opinion that financial

institutions are important because they evaluate and finance enterprises with innovative activities that brings new products and services to the market.

Pagano, (1993), also believes that financial system may affect long run growth of firms, stressing that financial market enables small savers to pool funds that those markets allocates investment to the highest return use and that financial intermediaries partially overcome problems of adverse selection in credit markets.

Navajas, Schrenor, Meyor, Gonzalez-Vega, and Rodriquez-Vega, (2000), in their “theory of social welfare”, believed that for micro finance banks (MFBs) to have effect on firms (farming business), there should be emphasis on the six aspects of outreach that is, depth of outreach, worth of outreach to users, breadth of outreach to users, cost of outreach to users length of outreach and scope of outreach, however the purpose of this research only the cost and scope of outreach shall be considered. Cost of outreach refers to the cost of a loan to a borrower which includes the interest rates, fees and other transaction costs which thus scares away many farmers willing to seek for such loans. Scope of outreach refers to the sectors and subsectors that MFBs are willing to extend credit facilities to farmers.

## 2.5 Summary of Literature Review

From the above reviews, it shows that the major problems of farmers are the problems of sourcing for loans which include; cost of finance and the scope of finance (Navajas, and et al, 2000).

## CHAPTER THREE

### 3.0 METHODOLOGY

#### 3.1 Introduction

This chapter will discuss on the research design, population of the study, sample technique and size, method of data analysis and instruments. The sources and methods of data analysis shall be considered.

#### 3.2 Research Design

A cross sectional survey research design shall be adopted for this study. This is a research I which the researcher is interested in garnering information from a study population from which sample is carefully selected for intensive study of the features of the population (Bazza and Vandibe, 2009). Survey research design is adopted because it is used to obtain data about situation and views of the respondents at one point in time through the use of research instruments of questionnaire.

#### 3.3 Population of the Study

The census enquiry of this work shall cover all the participants ranging from the farmers to the bank of agric and to ministry of agric. in Bauchi state. This research would like to use a total number of sixty four (64) both direct and indirect participants.

### 3.4 Sample technique and Size

Multi stage sampling technique (Purposive sampling technique, simple random and proportional sampling techniques shall be employed. In purposive sampling technique, some characteristics of respondents like years of experience size of farm etc shall be used as criteria to be included in the sample. Proportional sampling technique is used to determine the number to be included in the sample size from the population while the instruments of data collection shall be distributed using the simple random sampling technique.

The Yamane (1967), formular of sample size shall be adopted because of its acceptability thus;

$$n = \frac{N}{1+N(e)^2}$$

Where :

n = sample size

N= population size = 64

e = sample error = 0.05

n= 55 participants.

### 3.5 Data Collection Instruments

Primary source of data collection was adopted for this study with the use of structured questions that will be distinct to respondents.

### 3.6 Validity and Reliability of Research Instruments.

Experts in the field of rice farming and credit creation and disbursement shall be consulted to scrutinize the questionnaire items in relation to its ability to achieve the study's stated objectives. Content validity will also be used to determine the degree at which all items in the questionnaire represent and cover the entire construct in the study.

Statistical packages for the social sciences (SPSS) was used to determine the reliability of the instruments used in the study.

### 3.7 Methods of Data Analysis

Tables and descriptive statistics like mean, percentage, frequencies and standard deviation by using SPSS.

## CHAPTER FOUR

### 4.0 DATA PRESENTATION, ANALYSES AND INTERPRETATIONS

#### 4.1 Introduction

Below are the data obtained from a field study conducted in respect to the roles of bank of agriculture in the provision of agricultural facilities to rice farmers in bauchi local government area, analysis of data using descriptive statistics was carried out in determining the significance of the objectives of this project.

#### 4.2 Data Presentation

The data collected for this study were analyzed using descriptive statistical tools like frequency, percentage, mean and standard deviation.

#### 4.2.1 Demographic Information

Table 1 Rate of Response

Questionnaire	Frequency	Percentage
No. of response	50	90.91%
Non-response	5	9.10%
Total	55	100%

Source: Field study; 2017

From the above table, it shows that out of the fifty-five (55) administered questionnaire, 50 of them were returned, representing 90.9% while five (5) questionnaires were not returned representing 9.10% of the total administered questionnaires.

Table 2: Gender

Gender	Frequency	Percent
Male	37	74.0
female	13	26.0
Total	50	100.0

The above table shows that 37 persons, representing 74% are male while 26% are female

Table 3: Age

Range	Frequency	Percent
18-25	4	8.0
26-45	17	34.0
Above 45	29	58.0
Total	50	100.0

Source: Field Study; 2017

From the above age distribution table it is shown that 58% of the respondents are aged people while adults (26-45), represents 17% and only 4% for people between 18-25 years.

Table 4: Educational qualification

Educational qualification	Frequency	Percent
primary certificate	6	12.0
secondary certificate	10	20.0
diploma/OND/NCE	22	44.0
HND/Bsc	8	16.0
MBA/Msc/Phd	4	8.0
Total	50	100.0

Source: Field Survey; 2017

From the table above, the majority of the respondents are diploma holders with 44% followed by secondary school certificate holders with 20% and the least are the masters holders with 8%.

Table 5: How long have you been into rice farming

Duration in farming	Frequency	Percent
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less than 5 years	5	10.0
between 5-10 years	15	30.0
between 15-20 years	20	40.0
Above 20 years	10	20.0
Total	50	100.0

Source: field survey; 2017

From the above table 40% of the farmers are 15-20 years into rice farming while 10% are less than 5 years into the farming system.

Table 6: What is the size of your rice farm?

Size of farm	Frequency	Percent
less than 5 acres	32	64.0
between 5-10 acres	13	26.0
between 10-15 acres	5	10.0
Total	50	100.0

Source: Field Study; 2017

Table 7: What farm implements do you have?

Farm implements	Frequency	Percent
Hoes	28	56.0
Tractors	7	14.0
rain boots	4	8.0
Trucks	2	4.0
all of the above	9	18.0
Total	50	100.0

Source: Field survey; 2017

From the above table it is shown that majority of the farmers are dependent on hoes for their farming activities while only 18% of the respondents have all the stated farming implements.

Table 8: Is your rice farm registered under any agricultural association

Registration	Frequency	Percent
Yes	28	56.0
No	22	44.0
Total	50	100.0

Source: Field Survey; 2017

From the above table 56% of the respondents are not registered under any agricultural association.

**Research Question One: To what extent do the volume of credit facilities provided by BOA affects rice farmers in Bauchi local government**

Table 9: Descriptive statistics sources on the actual loan required and disbursed by BOA granted within 2014 and 2016

Opinions		Frequency	Percentage
	Disagreed	4	8.0
	Undecided	9	18.0
	Agreed	19	38.0
	Strongly agreed	18	36.0
	Total	50	100.0

Source: Field Survey; 2017

From the table above, 38% of the respondents strongly agreed that the actual loan requested was granted while 8% disagreed strongly and 18% are indecisive. The mean and standard value of 4.02 and 0.94 respectively

Table10: there is limit to amount of loan granted between 2014 and 2016

Opinions		Frequency	Percent
	Strongly disagreed	3	6.0
	Disagreed	5	10.0
	Undecided	6	12.0
	Agreed	21	42.0
	Strongly agreed	15	30.0

	Total	50	100.0
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Source: Field Survey; 2017

From the above table, it is shown that 42% of the respondents agreed that there is limit to the amount of loan granted, while 10% disagreed with such believe and 12% are indecisive. The mean and standard variations are 3.8 and 1.16 respectively

Table11: loan granted between 2014 and 2016 is based on the percentage of savings with the bank

Opinions	Frequency	Percent
strongly disagreed	3	6.0
Disagreed	11	22.0
Undecided	13	26.0
Agreed	12	24.0
strongly agreed	11	22.0
Total	50	100.0

Source: Field Survey; 2017

From the above table, it is shown that 24% agreed that loan granted to them is base on their savings with the bank, while 22% disagreed with that believe. The mean and standard variations are 3.34 and 1.22 respectively.

Table12: Loan granted between 2014 and 2016 is low

Opinions	Frequency	Percent
strongly disagreed	6	12.0
Disagreed	6	12.0

Undecided	9	18.0
Agreed	19	38.0
strongly agreed	10	20.0
Total	50	100.0

Source: Field Survey; 2017

From the above table, it is shown that 38% of the respondents agreed that loan granted between periods are low while 12% disagreed and 18% are indecisive. The mean and standard deviations are 3.34 and 1.28 respectively.

Table 13: Summary of the Assessment of volume of Credit Facilities granted by Bank of Agriculture (BOA)

Questions	Mean	Standard deviation	Opinions
Actual volloan requested and granted within 2014 and 2016um	4.02	0.94	1
there is limit to the amount of loan granted between 2014 and 2016	3.80	1.16	2
loan granted between 2014 and 2016 is based on the percent mage of savings with the bank	3.34	1.22	4
loan granted within 2014 and 2016 is low	3.42	1.28	3

In assessing credit facilities granted to rice farmers by the bank of agriculture Bauchi, the actual requested and granted tops the rank with limitation to amount of loan granted ranks second, while low amount of loan granted ranks third and the level of loan granted based on the level of savings with the bank ranks fourth.

**Research Question Two: To what extent does the accessibility of credit loan affects Bauchi rice farmers**

Table 14: descriptive statistics tools measuring the accessibility of credit loan granted to rice farmers in Bauchi by BOA

Easy accessibility to bank overdraft within 2014 and 2016

Opinions	Frequency	Percent
strongly disagreed	6	12.0
Disagreed	12	24.0
Undecided	13	26.0
Agreed	14	28.0
strongly agreed	5	10.0
Total	50	100.0

Source: Field Study; 2017

From the above table it is shown that 28% agreed that there was an ease of credit accessibility to farmer between 2014 and 2016, while 24% disagreed, 10% strongly agreed while 12% strongly disagreed. The mean and standard deviations are 3.0 and 1.20 respectively.

Table 15: Ease of accessibility to credit

Opinions	Frequency	Percent
strongly disagreed	6	12.0
Disagreed	4	8.0
Undecided	1	2.0
Agreed	34	68.0

strongly agreed	5	10.0
Total	50	100.0

Source: Field Study; 2017

From the table above it is indicated that 8% of the respondents disagreed that there is no ease of accessibility to bank loan, 68% agreed and 2% indecisive of the determinant factor. The mean and standard deviations are 3.56 and 1.16 respectively.

Table 16: Convenient procedure of bank loan granted within 2014 and 2016

Opinions	Frequency	Percent
strongly disagreed	14	28.0
Disagreed	13	26.0
Undecided	8	16.0
Agreed	9	18.0
strongly agreed	6	12.0
Total	50	100.0

Source: Field Study; 2107

In the above table it is indicative that 28% of the respondents strongly disagreed that procedure for granting loan are convenient and 12% strongly agreed, 26% and 18% both disagreed and agreed. The mean and standard deviations are 2.6 and 1.39 respectively.

Table 17: Fees of access to loan granted within 2014 and 2016

Opinions	Frequency	Percent
Strongly disagreed	6	12.0
Disagreed	16	32.0
Undecided	12	24.0
Agreed	10	20.0
Strongly agreed	6	12.0
Total	50	100.0

From the above table it can be seen that 20% agreed that there is an attached fees to accessing loan form BOA, 32% disagreed while 24% are indecisive. The mean and standard deviations are 2.88 and 1.23 respectively

Table 18: my bank requests for stringent collateral before extending credit within 2014 and 2016

Opinions	Frequency	Percent
strongly disagreed	6	12.0
Disagreed	10	20.0
Undecided	10	20.0
Agreed	10	20.0
strongly agreed	14	28.0
Total	50	100.0

Source: Field Study; 2017

From the table above it is seen that 28% strongly agreed on the factor above while 12% strongly disagreed. The mean and standard deviations are 3.32 and 1.40 respectively



Table 20: summary of the question

Questions	Mean	Standard Deviation	Ranking
Easy accessibility to bank overdraft within 2014 and 2016	3.00	1.95	3
Easy accessibility to bank loan within 2014 and 2016	3.18	1.14	2
convenient procedure of bank loan granted within 2014 and 2016	2.60	1.39	5
fees of access to loan granted within 2014 and 2016	2.88	1.22	4
my bank requests for stringent collateral before extending credit within 2014 and 2016	3.32	1.39	1

In answering the above question, the stringent collateral requested before extending credit facilities is ranked first, followed by easy accessibility to bank loan, easy of accessibility to bank overdraft

4.1.3 Research Question Three: What are the effects of cost of finance provided by BOA in influencing rice production in Bauchi local government?

Table 21: Descriptive statistical tools on stringent collateral before extending credit within 2014 and 2016

Opinions	Frequency	Percent
Strongly disagreed	6	12.0
Disagreed	10	20.0
Undecided	10	20.0
Agreed	10	20.0
Strongly agreed	14	28.0
Total	50	100.0

From the above table it shows that 28% of the respondents strongly agreed while 12% strongly disagreed, 20% disagreed, indecisive and agreed respectively on the subject matter. The mean and standard deviations are 3.32 and 1.39

Table 22: There is high interest rate payable on loan within 2014 and 2016

Opinions	Frequency	Percent
Strongly disagreed	2	4.0
Disagreed	6	12.0
Undecided	1	2.0
Agreed	31	62.0
Strongly agreed	10	20.0
Total	50	100.0

Source: Field study; 2017

From the above table 62% of the respondents agreed that there is high interest rate paid on loan within 2014 and 2016, while 6% disagreed, and 2% indecisive on the subject matter. The mean and standard deviations are 3.82 and 1.02 respectively.

Table 23: There is Cost of Processing Loan within 2014 and 2016

Opinions		Frequency	Percent
	strongly disagreed	4	8.0
	disagreed	3	6.0
	undecided	2	4.0
	Agreed	27	54.0
	strongly agreed	14	28.0
	Total	50	100.0

Field Study; 2017

From the above study it shows that 54% of respondents agreed that there is a cost attached when processing loan with BOA within 2014 and 2016, while 6% disagreed, 4% are indecisive of the variable. The mean and standard deviations are; 3.88 and 1.14 showing a positive response from the participants.

#### 4.3. Test of hypothesis

Table 24: There is limit to amount of loan granted between 2014 and 2016

Opinions		Observed Frequency (O)	Expected Frequency (E)	(O – E)	(O – E) <sup>2</sup>	(O – E) <sup>2</sup> / E
	strongly disagreed	3	10	-7	49	4.9
	Disagreed	5	10	-5	25	2.5
	Undecided	6	10	-4	16	1.6
	Agreed	21	10	11	121	12.1
	strongly agreed	15	10	5	25	2.5

	Total	50				23.6
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To calculate the chi-square rows minus one (R-1) by column minus one(C-1)

$$= (5-1) (2-1) \text{ Differential factor (df) } = (4) (1) = 4$$

From the above calculated chi sq at 23.6 which is greater than the tabulated at 14.86 at 5% degree of freedom, the null hypothesis one; the volume of credit facilities granted to rice farmers in Bauchi local government does not have any significant impact in sourcing for loan from BOA shall be rejected and the alternate hypothesis shall be accepted showing that there is significant impact on the volume of credit granted to rice farmers in improving rice farming in Bauchi local government.



Table 24: There is high interest rate payable on loan within 2014 and 2016

Opinions	Observed Frequency (O)	Expected Frequency (E)	(O-E)	(O – E) <sup>2</sup>	(O – E) <sup>2</sup> / E
strongly disagreed	2	10	-8	64	6.4
Disagreed	6	10	-4	16	1.6
Undecided	1	10	-9	81	8.1
Agreed	31	10	21	441	44.1
strongly agreed	10	10	0	0	0
Total	50				60.2

Source: Field Survey; 2017

From the above calculated chi sq2 it is shown that the null hypothesis; there is no significant impact on the high cost of loan granted by BOA shall be rejected while the alternate hypothesis shall be accepted that there is significant impact on the high interest rate payable on loan granted to rice farmers within 2014 and 2016.

Table 25: Easy accessibility to bank overdraft by BOA to rice farmers.

Opinions	Observed Frequency (O)	Expected Frequency (E)	(O-E)	(O – E) <sup>2</sup>	(O – E) <sup>2</sup> / E
Strongly disagreed	6	10	-4	16	1.6
Disagreed	4	10	-6	36	3.6
Undecided	1	10	-9	81	8.1
Agreed	34	10	24	576	57.6
strongly agreed	5	10.0	-5	25	2.5
Total	50				73.4

Source: Field Survey; 2017

From the above calculated chi sqr2 of 73.4 which is more than the tabulated chi sqr2 at 14.86, it is indicative that the null hypothesis that there is no significance on the accessibility of credit facilities would be rejected and the alternate accepted showing that there is much significance on the accessibility of credit facilities to rice farmers on the production of rice in Bauchi.

#### 4.4. Summary of Findings

From the tables above it is indicative that; finance according to Dayo and et al (2009), plays a vital role in the performance of farmers including rice farmers thus, the provision of credit facilities to rice farmers by Bank of agriculture lies on some factors like the volume of credit facilities, the stringent collateral requested by BOA, the ease of accessibility of bank overdraft

and the high interest rate charge for granting loan to rice farmers becomes significant which agrees with the views of Navajas and et al (2000) on their theory of social welfare which covers the scope and cost of outreach of micro finance bank to the provision of credit facilities to farmer. However, other variables could be inclusive in determining the roles of BOA in the provision of credit facilities to rice farmers in bauchi area

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## CHAPTER FIVE

### 5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 SUMMARY

Rice farming has become a very important business in Nigeria as it adds to the GDP of the nation as such; there is need for the improvement of such business in terms of provision of capital and other credit facilities to rice farmers in bauchi local government area.

The major problem observed in the provision of credit facilities to rice farmers as surveyed in this work is the volume of credit granted to rice farmers which could be used to purchase other farming implements like fertilizers improved seeds renting of vast land for more yield hiring and payment of wages to labor and pesticides for control of pests and other diseases.

## 5.2 CONCLUSION

From the above summary, it can be deduced that provision of credit and other non-financial services like advisory service to rice farmers on savings-culture by the bank of agriculture is very important in improving the level of performance and viability thus; improved yield of rice in bauchi state and Nigeria at large.

The increased level of production of rice farming which depends on the provision of credit facilities has a multiplier effect on Nigeria economy in terms of employment opportunity to labour, buyers and sellers of rice commodity. Reduced level of rice importation shall also be achieved from an improved level of rice production in Nigeria. Foreign direct investment (FDI) shall also increase as more investors would like to invest in bauchi and Nigeria at large.

## 5.3 RECOMMENDATIONS

From the above conclusion on the roles of bank of agriculture to rice farmers in bauchi local government area in the provision of agricultural facilities, the following recommendations is made

Rice farmers should be well informed about the availability of credit facilities granted by bank of agriculture because most times information asymmetry plays a major role in the accessibility of credit facilities.

From table 7 above it is indicative that majority of rice farmers are not registered under any agricultural association thus; the researcher recommends for the need of rice farmers to register under at least one association of farmers to obtain information and other facilities.

Establishment of agricultural fund to finance and facilitate medium/large scale agricultural production, credit should be granted to farmers who are ready and willing to

embark on medium/large scale farming to enhance employment, production for local consumption and for export in order to generate foreign exchange revenue for the Nigeria. The essence of the Fund is to address the most basic constraints facing agriculture, which is funding ; and the disbursement of such funds should be through banks, which would do normal credit appraisal and rating.

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