Bullion

Volume 42 | Number 1 Article 3

3-2018

Enhancing institutional lending to the agricultural sector by derisking the value chain: the case of Nigerian Incentive Based Risk Sharing System for Agricultural Lending (NIRSAL)

Ishaku Mikloda Polycarp
Central Bank of Nigeria, impolycarp@cbn.gov.ng

Recommended Citation
Polycarp, I. M. (2018). Enhancing institutional lending to the agricultural sector by derisking the value chain: the case of Nigerian Incentive Based Risk Sharing System for Agricultural Lending (NIRSAL). CBN Bullion, 42(1), 29-38.

ENHANCING INSTITUTIONAL LENDING TO THE AGRICULTURAL SECTOR BY DERISKING THE VALUE CHAIN: THE CASE OF NIGERIA INCENTIVE-BASED RISK SHARING SYSTEM FOR AGRICULTURAL LENDING (NIRSAL)

Polycarp Ishaku Mikloda, Ph.D
Principal Economist, Governors Department,
Central Bank of Nigeria, Abuja, Nigeria

ABSTRACT

There is no gainsaying that agriculture is one of the most important sectors in the Nigerian economy as it employs at least 60% of Nigerians and contributes up to 23.11% of the country's GDP. The performance of the agricultural sector has not been encouraging over the years, resulting in the importation of over N1.0 trillion in wheat, rice, sugar and fish. Policy responses towards channeling financial resources to the agricultural sector in Nigeria have a long history through government and CBN sponsored programmes. Among CBN intervention schemes is the Nigeria Incentive-based Risk Sharing System for Agricultural Lending (NIRSAL). It is a $500 million public liability company wholly owned by the CBN aimed at providing farmers with affordable financial products, while reducing the risk of loans under financing programmes offered by banks. The NIRSAL financing mechanism has five solution components namely: Risk Sharing Facility (RSF), Insurance Component (IC), Technical Assistance Facility (TAF), Bank Incentive Mechanisms (BIM) and Agricultural Bank Rating System (ABRS). NIRSAL absorbs a large chunk (up to 75%) of the risk, to enable banks and other lenders to finance agriculture more sustainably. Since incorporation in 2015, NIRSAL has provided Credit Guarantees for over 454 agricultural projects valued at N61.161billion; paid out over N753.36 million as interest rebate to borrowers; and guaranteed up to 40% (207) of the Federal Ministry of Agriculture's Growth Enhancement Scheme (GES) projects valued at N39.49 billion. In addition, NIRSAL has trained 112,000 farmers and primary producers in four (4) value chains namely: Rice, Cocoa, Cotton and Tomato among others. To make NIRSAL a better success story that will further unlock billions of Naira to the agricultural sector, the Management of the institution must ensure the buy-in and active participation of DMBs, development finance institutions, farmers groups/associations, development partners, NAIC and other commercial insurance firms, government at all levels and other stakeholders that have been identified to have a role to play with the scheme. In addition, there is need for strengthening of NIRSAL by diversifying its areas of coverage and allowing independent investors to own shares thereby making it more efficient in providing credit risk guarantees to agricultural projects.

1.0 INTRODUCTION

Agricultue is one of the most important sectors in the Nigerian economy from the standpoint of rural employment, and the provision of food and industrial raw materials. This is because it employs over 60 per cent of Nigerians and contributes up to 23.11 per cent of the country's gross domestic product (GDP) (table 1). The potential of the agricultural sector in Nigeria is huge. The country has a substantial base to build upon in view of its abundant natural resources including 82 million hectares of arable land of which only 34 million Ha have been cultivated (PwC, 2017). In addition, the country's population represents a large domestic market that can support and sustain local production and processing.

Despite these potentials, the performance of Nigeria's agricultural sector has not been encouraging over the years, resulting in the country becoming a net importer of food and other agricultural products. For instance, FMANR (2011) reported that agriculture import dependency is hurting the economy yearly as Nigeria imports over N1.0 trillion in wheat, rice, sugar and fish yearly. Furthermore, loss in global agricultural market share has made Nigeria to be losing about US $10.0 billion annual export opportunity from four agricultural commodities namely: oil palm, cocoa, groundnut and cotton. Agriculture must be taken serious as it remains the most important sector of the country's economy after oil. This creates the need for policies and strategies that will lead not only to improved technology, resource availability, management and marketing expertise in agribusiness but also in ensuring availability of finance to farmers. Farmers need credit as catalyst to accelerate their adoption of improved agricultural technologies, finance for the procurement, maintenance, purchase of inputs and meet working expenses.

Policy responses towards channeling financial resources to the agricultural sector in Nigeria have a long history. Some of the government sponsored programmes included the establishment of development finance institutions and credit schemes like the Agricultural Development Programmes (1975); National Directorate of Employment (1987), the Nigerian Agricultural Insurance Company (1987), Nigeria Export-Import Bank (1991), the National Poverty Eradication Programme (2001), Bank of Agriculture (2010) etc. These schemes and institutions were typically hinged on enhancing credit flow for real sector activities in view of the significance of credit to the sector for increased incomes across the value chain.

For Nigeria to effectively increase its share in Africa's agricultural space and harness the market opportunities, the need to re-focus the country's agricultural financing policy to developing its agricultural food baskets and commodity value chains to meet the food market product demands has become imperative.

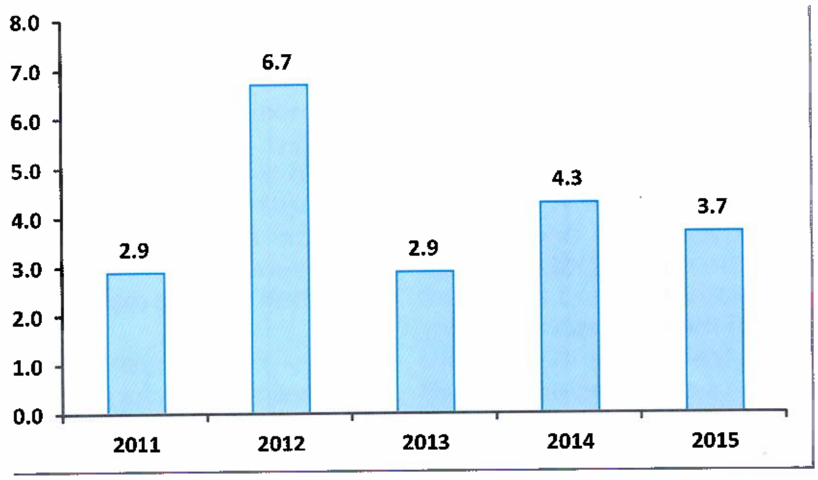
It was in the light of these developments that the Central Bank of Nigeria (CBN) on August 9, 2010, engaged the Alliance for Green Revolution in Africa (AGRA) to develop an innovative mechanism for unlocking billions of naira of financing to serve the needs of all farmers, especially small-holder farmers, agro-processors, agribusinesses and input suppliers in the agricultural value chain. The Nigeria Incentive-based Risk Sharing System for Agricultural Lending (NIRSAL) is aimed at providing farmers with affordable financial products, while reducing the risk of loans to them under financing programmes offered by banks. NIRSAL has moved from a concept to a full-fledged institutional player in the Nigerian agricultural finance landscape delivering financial services to small and large scale farmers. It is therefore imperative to review NIRSAL's milestones and draw implications for policy focus towards better service delivery.This paper is divided into nine (9) sections. Section 1 provides a general introduction as well as the objectives of the paper. Section 2 highlights the performance of agriculture in Nigeria delving into the imperativeness for improved finance in Nigerian Agriculture. Section 3 reviews past efforts to promote agricultural financing in Nigeria, detailing roles of DMBs in agricultural finance as well as CBN agricultural finance schemes. Section 4 discusses why banks are not financing agriculture adequately. Section 5 delves into the NIRSAL initiative, elucidating on the objectives and components (pillars) while the role of NIRSAL in de-risking the agricultural value chain is presented in section 6. Section 7 gives NIRSAL's Strategy towards re-engineering the Nigeria's agricultural finance landscape while section eight (8) presents NIRSALs products and scorecards. Finally, Section nine (9) concludes the paper with some recommendations to improve on NIRSAL's current scorecard.

Table 1: Percentage Contributions to GDP on Sectorial Basis (2011-2015)

Activity Sector	2011	2012	2013	2014	2015
Agriculture	23.33	23.91	23.33	22.90	23.11
Industry	22.39	21.74	29.59	20.54	19.30
Services	34.34	34.59	35.87	36.17	36.76

Source: Central Bank of Nigeria (2015). Annual report and Statement of Account

Figure 1: Growth Rate of Nigeria's Agricultural Sector GDP-% (2011-2015)



2.0 PERFORMANCE OF AGRICULTURE IN NIGERIA

According to Anderssen et al (2017), 80% of farmers in Nigeria are considered small-holders because they own less than 5 hectares of land. Small-holders produce 99% of Nigeria's agricultural outputs. The growth rate of the Nigeria's agricultural sector had not been stable over the years as its performance between 2011 and 2015 exhibited a varying trend from 2.9% in 2011, through 6.7% in 2012 to 2.9% 2013. The growth rate stood at 4.0% in 2014 and 3.7% in 2015 (CBN, 2015).

A wide gap exists between demand and supply of agricultural products in Nigeria.

According to FMARD (2014), gaps occurred in the demand and supply of a broad range of commodities like rice (4.0 million MT), wheat (4.67 million MT), poultry (60 million birds), Milk (1.4 million MT), oil palm (3.5 million MT), cotton (0.5 million MT) and tomato (1.4 million MT) as presented table 2. This implies that Nigerian agriculture cannot continue to be practised using the current system, rather pragmatic steps have to be taken by imbibing game-changing approaches that combine effective application of agricultural technology, scale economics and appropriate financing mechanisms to improve productivity, boost yields and create more jobs in agriculture. It is in line with the above, that the CBN has been involved in agricultural financing with a view to fixing the financial component of the agricultural value chain.

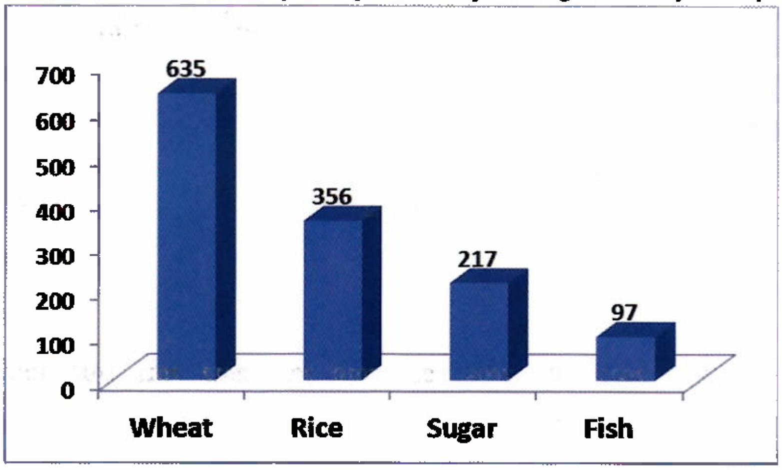
As stated above, an analysis of Nigeria's agricultural sector reveals that production is heavily dependent on small-holder farmers who adopt manual approaches to farming. Also, only a small fraction of the small-holder farmers have access to finance. The condition under which these subsistence farmers operate include lack of access to technology, high covariant risk, lack of access to farm inputs, lack of financial literacy, resistance to change and other challenges which culminate in low yields and poor income. All these have compromised agricultural productivity and food security in the country.

Table 2: Demand and Supply Gaps Across Key Crops and Activities in Nigeria (2016 Estimate)

Commodity	Demand (Tons)	Supply (Tons)	Gap (Tons)
Rice	6.3 million	2.3 million	2.0 million
Wheat	4.7 million	0.06 million	4.67 million
Maize/Corn	7.5 million	7.0 million	0.5 million
Soya Beans	0.75 million	0.6 million	0.15 million
Chickens (Birds)	200 million	140 million	60 million
Fish	2.7 million	0.8 million	1.9 million
Milk / Dairy	2.0 million	0.6 million	0.4 million
Tomato	2.2 million	0.8 million	1.4 million
Yams	39 million	37 million	2 million
Oil Palm	8.0 million	4.5 million	3.5 million
Cocoa	3.6 million	0.25 million	3.35 million
Cotton	0.7 million	0.2 million	0.5 million
Sorghum	7.0 million	6.2 million	0.8 million

Source: The Agriculture Promotion Policy (2016 – 2020). Federal Ministry of Agriculture and Rural Development

Figure 2: Annual Food Imports (N'Billions) for Nigeria's top 4 Imports



Source: Federal Ministry of Agriculture and Water Resources

2.1 The Imperative for Improved Agricultural Financing in Nigeria

With a nominal GDP of USD$509billion following the rebasing exercise, Nigeria is the largest economy in Africa and among the fastest growing in the world. However, despite substantial oil wealth, it is one of world's poorest nations, with more than 72% of households living below the poverty threshold (CBN, 2015). The country has neglected its strong agriculture base in favor of an unhealthy dependence on oil which accounts for more than 97% of export earnings and 80% federal revenue.

The agricultural sector has suffered from years of poor management, inconsistent and poorly implanted government policy and lack of basic infrastructure. Nigeria is no longer a major exporter of cocoa, groundnut, rubber and palm products but an importer of wheat, rice, sugar and fish.

Nigeria's food import bill is exceptionally high. Based on data from FMANR (2011), the top four imports consume over N1.0 trillion Naira in foreign exchange every year (figure 2). This reliance on the import of expensive food on global markets fuels domestic inflation and puts pressure on the nation's dwindling foreign reserves. Nigeria's foreign reserves have gone down from $45.67 billion in September 2013 to about $30.362 billion in July 2017 (www.cbn.gov.ng). The outcome of this is hurting the economy by displacing local agricultural production and creating rising unemployment.

This situation of import dependency is not sustainable fiscally, economically or politically.

The need therefore to revitalize Nigerian agriculture calls for concerted efforts of improved financing, technology, resource supply, management, marketing and improved agribusiness. Farmers need credit as catalyst to accelerate their adoption of improved agricultural technologies, the procurement, maintenance and purchase of inputs to meet their working expenses.

3.0 EFFORTS TO PROMOTE AGRICULTURAL FINANCING IN NIGERIA

Nigeria's agricultural policy during the past years has been anchored on food import substitution and yield enhancement. This is aimed at reducing the country's dependence on the importation of basic food items, such as wheat, rice, sugar, etc, by producing them locally; and the promotion of national food security. It is also targeted at providing employment, stemming of rural-urban migration, promotion of modern farm practices through commercial agriculture; and supporting of natural resource conservation to stem declining soil fertility as well as the moderation of indiscriminate destruction of the country's vegetation.

3.1 Role of Commercial Banks in Agricultural Financing

Commercial banks serve as the intermediary between the Central Bank of Nigeria and the general public in the processing, sales and purchase of banking products and monetary policy instruments. They play a major role in the development process as they accept deposit and give out loans to the economy. Nigerian banks have over the years shown a strong preference for short term lending against medium to long term financing that is required in most agricultural business endeavours. This has made short term lending to remain the dominant form of banks' financing to Nigeria's agriculture. Presently, the agricultural sector of Nigeria accounts for only 3.4% of total lending even though the sector accounts for over 23.11% of the country's GDP (figure 3).

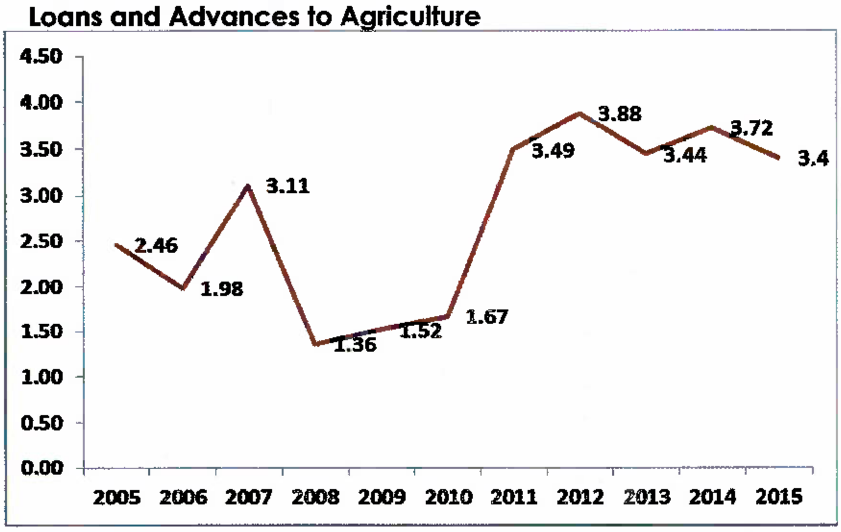
3.2 Agricultural Finance Schemes Operated/Managed by the Central Bank of Nigeria (CBN)

The CBN has been engaged in the management of credit schemes for the agricultural sector alongside other closely related real sector initiatives. This role of the Bank is crucial as it is meant to swiftly bridge observed gaps by directing credit to ensure that the agricultural sector does not suffer and that small and large farmers are not starved of needed capital. It is pertinent to state that, the Bank manages several real sector schemes, however, the major existing initiatives related to agriculture are the: (i) N200billion Commercial Agriculture Credit Scheme (CACS); (ii) Anchor Borrowers' Programme (ABP); and (iii) Agricultural Credit Guarantee Scheme Fund (ACGSF). The Bank also administered the Agricultural Credit Support Scheme (ACSS) where credit facilities are granted to farmers by banks for agricultural activities at an interest rate of 14%. Borrowers who repaid on schedulewere granted a rebate of 6%, there-by, reducing the effective interest rate paid to 8%, inclusive of other charges by banks. The ACSS has has been discontinued by the Bank.

(a). N200 Billion Commercial Agriculture Credit Scheme (CACS)

The Central Bank of Nigeria (CBN) in collaboration with the Federal Ministry of Agriculture and Rural Development (FMA&RD) established the Commercial Agriculture Credit Scheme (CACS) in 2009 as a sub–component of the Federal Government of Nigeria Commercial Agriculture Development Programme (CADP). The scheme was

Figure 3: Trends in Percentage Distribution of Banks' Loans and Advances to Agriculture



Source: Central Bank of Nigeria (2015). Annual report and Statement of Account (Various issues) financed from the proceeds of the N200.0billion seven-year bond raised by the Debt Management Office (DMO). Commercial banks were granted facilities under the CACS for on-lending to clients (both private sector operators and State Governments) at a maximum interest rate of 9.0% (all inclusive). In addition, each State Government could borrow up to N1.0billion for on-lending to farmers' cooperative societies and other areas of agricultural development, provided such initiatives or interventions were in line with the objectives of the Scheme. The Scheme which started in 2009 was in 2016, extended to 2025.

CACS was established to fast track the development of the agricultural sector, enhance national food security, generate employment, and reduce the cost of credit for agricultural production by providing credit facilities for commercial agriculture at a single digit interest rate, diversify the revenue base, increase foreign exchange earnings and provide input for the industrial sector on a sustainable basis. From inception in 2009 to May 2017, the sum of N467.7 billion has been released to the economy for 511 projects.

(b) The Anchor Borrowers' Programme (ABP)
The Central Bank of Nigeria established the Anchor Borrowers' Programme in November 2015, with a view to collaborate with anchor companies involved in the production and processing of key agricultural commodities. The Programme was designed to help local farmers increase production and supply of feedstock to processors, reduce importation and conserve Nigeria's external reserves. Under the Scheme, anchor firms are to serve as off-takers in recognition of their track record and experience in working with out-growers involved in production. The Scheme involves a finance model whereby the anchor firms, CBN, NIRSAL and State Governments organize the out-growers and ensure that they comply with contractual terms thereby reducing the incidence of side-selling. The financing institutions serve as veritable channels for delivering credit to the out-growers. A total of N29.035billion has been disbursed under the APB programme to 148,034 farmers as at May, 2017 (www.cbn.gov.ng).

(c) Agricultural Credit Guarantee Scheme Fund (ACGSF)
The Agricultural Credit Guarantee Scheme Fund was launched in 1977 to reduce the risk borne by commercial banks in extending credit to farmers. Under this scheme, the Central Bank of Nigeria guaranteed up to about 75% of the value of the principal and interest on loans granted to farmers by any commercial bank up to a maximum of N20,000.00 (adjusted in June 2014 to N50,000.00) for individuals without tangible collateral, and N1,000,000.00 (adjusted in June 2014 to N50, 000,000.00) to individuals with adequate and realisable collateral and N10 million for loan to cooperatives and corporate bodies with adequate and realisable collateral.

The ACGSF has two important features:the Interest Drawback Programme (IDP), and the Trust Fund Model (TFM). Under the IDP, farmers who borrowed from banks under the ACGS enjoy interest rebate of 40% on their loans provided they repay the loans on schedule. Under the TFM, on the other hand, oil companies, State and Local Governments and Non-Governmental Organizations (NGOs) etc., place funds in trust with lending banks to augment the small group-savings of the farmers as security for agricultural loans. Under this arrangement, the Trust Fund secures 25% or more of the intended loans of the prospective borrowers and the farmers' savings secure another 25% of the loan. The ACGSF on its part guarantees 75% of the remaining 50%, thereby leaving the lending bank with a risk exposure of only 12.5%. The total loans guaranteed from inception in 1978 to May, 2017 is 1,077,279 valued N106.539 billion.

(d) Agricultural Credit Support Scheme (ACSS)
The scheme was established in 2006 with a prescribed fund of N50.0 billion. Under ACSS, banks lend at a maximum of 14% interest rate, farmers pay only 8% while CBN provides 6% rebate to banks. The Scheme had been rather inactive after 8 years in operation having processed and paid rebate to only 46 projects valued N876.79 million as at end October 2014.

4.0 WHY NIGERIAN BANKS ARE NOT FINANCING AGRICULTURE

As stated earlier, Nigerian banks have over the years exhibited preference to short term lending against lending to agriculture which in most cases requires medium to long term funding. Some of the reasons for bank sub-optimal channelling of credit to the sector include perception, risks and uncertainty in agriculture etc. These are discussed below.

4.1 Perception
Despite the availability of a plethora of CBN Schemes and programmes to take advantage of, banks are still not lending enough to agriculture because of high perceived risk of lending to the sector. Nigerian banks do not understand the needs of agriculture and as such, they do not see the sector as strategic. They lend based on opportunistic tendencies because agriculture

suffers information asymmetry, lacks the required technology and the infrastructure to support it. The perceived high risk is driven by additional factors including:

- Attendant high default rates from government-driven lending programs;
- Banks do not perceive agriculture as a business but a development programme for government interventions;
- Paucity of rigorous data on the demand for financial services in Nigerian agriculture due to information asymmetry; and,
- Lack of good business plan to convince banks to lend.

4.2 Risks and Uncertainties in Agriculture

Agriculture in many instances is a hazardous vocation because, to some extent, it faces many risks. It is risky because results depend, to an alarming extent, on many factors over which the farmer has no control. He operates under uncertain conditions and factors which he can only influence to a minimal degree. For instance, he does not determine rainfall; he cannot contain a sudden attack of locusts; he cannot stop the outbreak of serious diseases fatal to his crops etc. Under such circumstances, farmers need to develop strategies that could help minimize the effects of such risks in the event of their occurrence. According to Dupriez and Leener (1988), the risks farmers face fall under the following four major headings:

a. **Weather Risks:** Weather hazards subject farming to chance effects. For instance, if rainfall is inadequate or untimely, plants dry up and yields are in jeopardy. At times, sudden hurricane flattens plants to the ground, which can cause enormous losses in crop yield. A spell of exceptionally cold weather destroys flowers and young fruits. In fact, there are many varied ways of combating weather risks, but there is no adequate or full proof way of protecting crops from bad weather. According to Dupriez and Leener (1988), rain calendars were studied in detail and two particular aspects of weather hazard connected with rainfall were identified as:

i. Rains may be inadequate for a cultural season taken as a whole.
ii. Rains may be unreliable and, above all, they may be totally lacking at crucial times in the plant life.
iii. It then follows that drought inevitably follows lack of rain and, with it, damage to plants that are not at the end of their life cycle at such times.

b. **Biological Risks:** Plant health is subject to certain hazards. They may be attacked by micro-organisms carrying diseases. They may be eaten by caterpillars, slugs, insects and rodents. Monkeys, loose animals and elephants, for instance, can devastate crops. People also cause devastation, for example, by lighting uncontrolled fires. Other biological risks include pest attacks, rotting and fermentation or damage caused by wandering animals.

c. **Economic and Social Risks:** These risks spring from the economic and social environment of farmers' farms. The famer is not sure of finding buyers for his produce after the harvest, or the market prices might have slumped when his produce is up for sale. Production factors such as manpower, fertilizer, seeds, tools, and machinery may also be in short supply when they are most needed for the planting season. The cost of production factors may shoot up or workers fall ill. All of these pose serious risks to farmers' food production enterprises.

d. **Technical Risks:** A mechanical breakdown may occur at a critical time of food production. For instance, when a plough part breaks, an engine stops working etc. If the spare parts are not readily available, agricultural food production activities may suffer setback because the farmer will be forced to halt his cultural operations. Uncertainty about the future works both ways. For example, a farmer can win or lose depending on the outcome of events. According to Dalton (1982), constraints of various other kinds also limit the farmer's freedom to make changes in the process of food production. These may consist of simple identities such as the fact that the demand for resources cannot exceed the supply of the resources. Constraints are also imposed by the legal system, moral values and also by the technical relationships that exist between activities as is the case in rotational practices.

4.3 Other Challenges

Other challenges affecting banks' lending to the agricultural sector are as follows:

- Poor infrastructure such as water for irrigation, electricity, good roads for evacuation as well as warehouse and storage facilities. These constitute a recipe to farm losses or sub-optimal output.
- High cost of doing business in the rural areas where most small scale farmers are based.
- High cost of obtaining information on scattered farmers.
- Improper client services and delivery strategies
- Political instability and social insecurity have hindered penetration of financial services to the hinterlands
- Lack of collateral for small and rural borrowers

5.0 THE NIGERIAN INCENTIVE-BASED RISK SHARING SYSTEM FOR AGRICULTURAL LENDING (NIRSAL)

The Nigerian Incentive-based Risk Sharing System for Agricultural Lending (NIRSAL) is an agricultural financing initiative of the CBN aimed at providing farmers with affordable financial products, through de-risking agriculture and unlocking the access of input suppliers, farmers, agro-processors, and product marketers in the agricultural value chain financing to financial institutions. NIRSAL was incorporated in 2013 as a non-banking financial institution, designed to appropriately define, measure, price and share agribusiness related credit risk. It operates as an autonomous private sector institution with a distinct governance structure under a Board of Directors. The institution is a $500million public liability company wholly owned by the Central Bank of Nigeria.

5.1 Objectives of NIRSAL

The intent of NIRSAL policy is to spark agricultural industrialization process through increased production and processing of the greater part of what is produced to boost economic activity and earnings across the value chain. NIRSAL de-risks the agricultural value chain by putting in place transparent mechanisms that enable it to identify, define, measure, price and share agribusiness credit risks with banks by providing guarantees for agricultural loans to finance projects that are verified to be feasible, viable and potentially impactful.

NIRSAL also build capacities of Nigerian banks to lend to agriculture, deploy risk sharing instruments that will lower the risks of lending, provide technical assistance to farmers and banks, and develop a bank rating scheme that incentivises and showcase or situate banks based on their capacities to lend to the agricultural sector. The initiative was also planned with a special purpose sub-fund that serves as an Impact Investing Fund for African Agriculture to:

- o Stimulate innovations in agricultural lending;
- o Encourage bank lending to the agricultural sector;
- o Eliminate state-dependency by banks for deploying loanable funds to agriculture;
- o Leverage commercial bank balance sheets for lending into agriculture; and
- o Ensure risk sharing approaches that will build a business approach where banks share in the risk of lending to the sector.

Beyond its role in facilitating agricultural finance from banks, NIRSAL conceives field innovations that will spur the growth of rural economies through the aggregation of small-holders and the formation of geo-clusters. Geo-clusters allow for easy farm mechanization, input supply, and transition of produce from primary production to other layers of activities in the value chains.

5.2 Major Components (Pillars) of NIRSAL

The NIRSAL financing mechanism has the following five components:

I. Risk Sharing Facility (RSF)

This component supports the deployment of different risk sharing instruments to reduce the risk of lending to agriculture by commercial banks. This includes first loss and shared loss arrangements; and depending on the volume of lending, the part of the value chain that the bank wants to lend to; the term of lending and the type of bank; experience and capacity for agricultural lending. NIRSAL uses this facility to address the financial sector's perception of high-risks in the sector by sharing the risks with banks on agricultural loans. It does this by providing guarantees for the loans.

ii. Insurance Component (IC)

The IC identifies existing insurable risks, existing solutions for coverage and assist in the development of such solutions and link such products to the loan provided by the banks. The facility's primary goal is to expand insurance products for agricultural lending from the current coverage to new products, such as weather index insurance, new variants of pest and disease insurance etc.

iii. Technical Assistance Facility (TAF)

The TAF facility supports banks that have clearly demonstrated interest and verifiable commitment to entry into small-holder agricultural lending. The risk sharing fund and the technical assistance facility are jointly used to share risks and build capacity of banks to lend and build delivery platforms in support ofagricultural lending. The technical assistance facility is also used to build thecapacity of smallholder farmers and assist them in managing market and financial activities. NIRSAL uses this facility to equip banks to lend sustainably to agriculture. It also enable producers to borrow and use loans more effectively and increase high quality agricultural products.

iv. Bank Incentive Mechanisms (BIM)

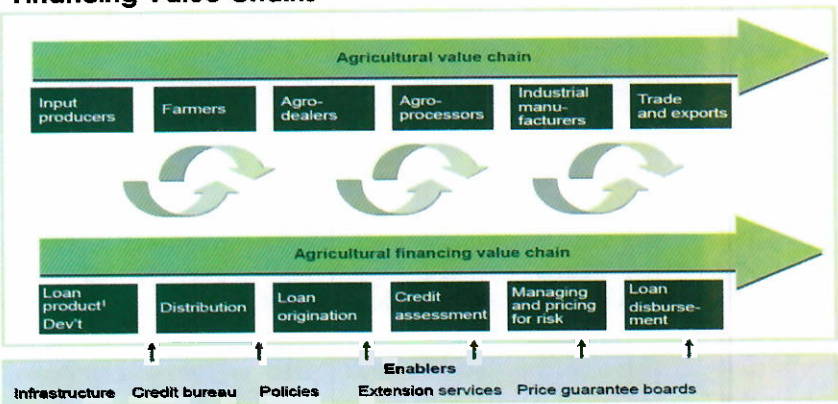
This mechanism offers high agricultural lending banks additional incentives to build their long-term lending capabilities. It will be in terms of cash awards. This mechanism ensures that deposit money banks (DMBs) that show strong commitment to lending to agriculture are further incentivized. This is through the

Table 3: The Five (5) Pillars of NIRSAL

Risk Sharing Facility ($300M)	Insurance Facility ($30Million)	Technical Assistance Facility ($60M)	Agricultural Bank Rating Scheme ($10Million)	Bank Incentive Mechanism ($100 Million)
Shares lending risks with banks (e.g. 50% of any loss incurred)	Links insurance products to the loan provided by banks to loan beneficiaries	□Builds the capacity of banks, micro-finance institutions □Builds the capacity of agricultural value chains □Expands financial inclusion	□Rates banks according to effective-ness of their lending to agriculture. □Rates AVC Actors According to Financial, Agribusiness Growth, Tech. Adopt Performance	□Provides incentives that: move banks to a long term, strategic position and commitment to agricultural lending □Reward Performances by AVC Actors
De-risk agriculture finance value chain		Build long-term capacity	Institutionalise incentives for agriculture lending & AVC Performance	

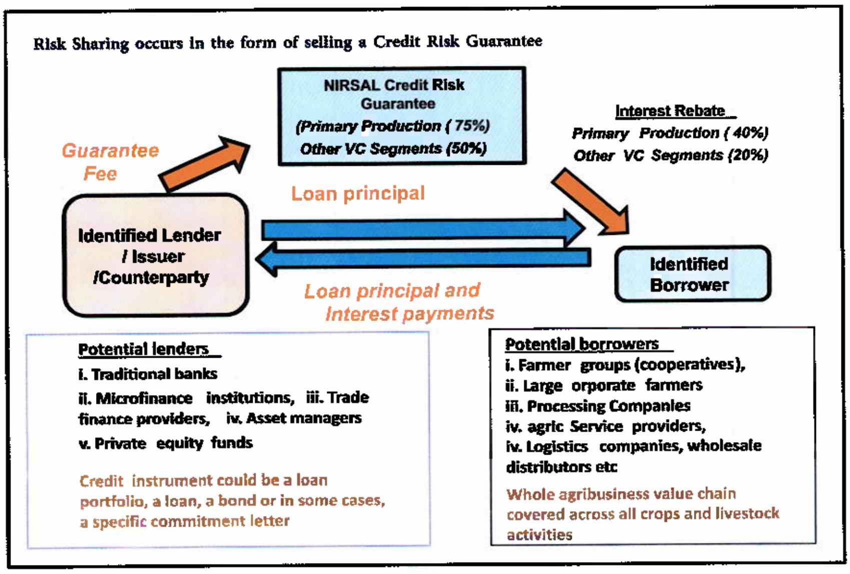
Source: NIRSAL Plc (2017). The Roles of Agent Networks in Reaching the Last Inch of the Last Mile

Figure 4: NIRSAL's Operating Model Towards Creating Access to Finance by Integrating End-to-End Agriculture Value Chains with Financing Value Chains



Source: NIRSAL Plc (2016). Financing and Risk Sharing

Figure 5: Process Flow of NIRSAL's De-risking Strategy



Source: www.cbn.gov.ng

use of lower guarantee fees and up -scaled access to capital for agricultural lending at a lower rate from the CBN.

v. Agricultural Bank Rating System (ABRS)

This mechanism is used by NIRSAL to rate banks based on two factors: the effectiveness of their agricultural lending, and the social impact, which is then made available to the public.

6. NIRSAL'S ROLE IN DE-RISKING THE AGRICULTURAL VALUE CHAIN

NIRSAL's core responsibility is to de-risk the agricultural value chain so that banks can lend to the sector with confidence. In this regard, it is NIRSAL's mandate to x-ray reasons why these financial institutions do not lend enough to agriculture, and devise strategies that will enhance lending to the sector. Research has shown that the challenge of agriculture in Nigeria today is not the absence of funds that farmers can borrow, but the risk of non-repayment. NIRSAL absorbs a large chunk (up to 75%) of the risk when they crystallize, to enable banks and other lenders to lend to agriculture more frequently and comfortably. In this regard, NIRSAL smoothens the relationship between lenders and borrower. Banks benefit from the business of lending, because they gain interest payments from it; and farmers need to borrow, because they can grow their agribusinesses with more money. Therefore, wherever and whenever the interests of the lender (Bank) and the borrower (Farmer) match, NIRSAL ensures that both parties can build a secure business relationship.

NIRSAL also has a programme which it applies to aid the borrowers (farmer) to enable them succeed. It is called the Interest Drawback (IDB). Here, borrowers that repay their capital and interest as and when due, regain (from NIRSAL) up to

40% of the interest charged by the lender after every 90 days cycle, effectively reducing the cost of the loan. This is to encourage faithful repayment of loans which will foster the entrenchment of a healthy relationship between lenders and borrowers in the agricultural sector.

7.0 NIRSAL'S STRATEGY

NIRSAL's strategy is intended to strategically re-engineer Nigeria's agricultural finance landscape and complement existing initiatives, namely, the ACGS, ABP, CACS etc. This is expected to raise agriculture's share of commercial bank lending portfolio to about 10% ($6bn USD) by 2026 through:

- Technical support to key actors along the agricultural value chain
- Strategic interventions and advice to governments on agricultural matters;
- Credit guarantees on loans made to agribusiness investors, farmers, companies and other related actors;
- Investment support and advisory to value chain actors;
- Enhanced lending capacity by banks and development of a sustainable agricultural lending systems, processes, etc.;
- Reduced banks perception of agriculture as highly risky (through increased lending experience);
- Considering agricultural lending as a strategic business rather than an opportunistic venture; and
- Increased profitability and competitiveness of Nigerian agriculture, and reduced poverty.

This is with the aim of achieving the following SMART objectives:

- Leverage the NIRSAL Risk Sharing Fund to grow bank lending to agriculture within 10 years from 1.4 to 10 percent.
- Increase lending to the small scale farmers (the "pooled" segment) to 50% of aggregate commercial banks' lending to agribusiness.
- Expand insurance coverage from 0.5 million to 3.8 million agricultural producers.
- Increase lending to 3.8 million farmers by 2026 through pooling mechanism using value chains and cooperatives.

8.0 NIRSAL PRODUCTS AND SCORECARD

I. Products

NIRSAL creates models of commercial relationships amongst actors within and between segments of agricultural value chains and has a range of financing products including:

- Primary Production Financing Products
- Agricultural Mechanization Financing Products
- Agricultural Input Financing Products
- Irrigation Financing Products
- Aggregation and Storage Financing Products
- SME Financing Products
- Processing Financing Products
- Agro Commodities Wholesale and Retail Financing Product

i. SCORECARD

Since its establishment in December 2015, NIRSAL has in line with its mandate to de-risk the agricultural value chain and carried out the following projects:

a. Mechanization Scheme

Under this scheme NIRSAL facilitated the purchase of 1,000 tractors worth billions of naira for lease to small- holder and large scale farmers at affordable rates. NIRSAL was able to do this by defining an end-to-end tractor financing model that addressed the risk concerns of banks and attractive to tractor manufacturing companies. The scheme has recorded success with zero defaults on payment and an increase in mechanized farming.

b. Farm to Market Scheme

The NIRSAL Farm- to- Market Scheme was designed to fix the challenges like high cost, loss of produce in transit, death etc that agricultural producers face in moving their produce from their farms to markets. The focus is on livestock, processed meat, grains, milk and other perishables. Under this scheme NIRSAL facilitates bank financing targeted at fixing relevant aspects of the transport logistic chain like trucking of produce from farm gate to aggregation centers, storage, cold chain, long haul transport via rail, last mile transport to markets. The livestock transport component of the scheme commenced in August 2016 with the historic movement of 500 cattle by rail from Gusau to Lagos. The second train conveyed another batch of 500 cattle from Nguru to Lagos. In the next phase, NIRSAL will facilitate finance for the establishment of state of the art abattoirs, refrigerated wagons for the transport of processed meat from the north to the south.

The following are specific achievements of NIRSAL since its incorporation in 2013:

I. Provision of Credit Guarantees for over 454 Agricultural projects valued at N61.161 billion
ii. Pay out of over N753.36 million as interest rebate to borrowers who paid back their loans in good time.
iii. NIRSAL has guaranteed up to 40% (207) of the Federal Ministry of Agriculture's Growth Enhancement Scheme (GES) projects valued at N39.49 Billion and

paid Interest Draw Back to GES beneficiaries on 91 projects valued at N439.09.82 million

iv. Trained 112,000 farmers and primary producers in 4 value chains of Rice, Cocoa, Cotton and Tomato.

9.0 CONCLUSION AND IMPLICATIONS

The conception of NIRSAL was informed by the need to put in place an agricultural financing strategy that will boost output, increase farmers' incomes, create jobs and provide wealth opportunities across the value chain. NIRSAL is therefore charged with the responsibility of providing agribusinesses with affordable credit guarantees across the agricultural value chain as well as reduce the risk exposure of banks in agricultural lending guarantee.

The success of this initiative is not just a function on how striking the solution design is modelled but how well it is implemented. To this end, to make NIRSAL a success story that will unlock billions of Naira to the agricultural sector which hitherto were directed towards other areas perceived as less risky by banks, the Management of the institution must ensure the buy-in and active participation of DMBs, development finance institutions, farmers groups and associations, development partners, NAIC and other commercial insurance firms, government at all levels and all other stakeholders that have been identified to have a role to play with NIRSAL.

In addition, there is need for strengthening of NIRSAL by diversifying its areas of coverage and allowing independent investors to own shares thereby making it more efficient in providing credit risk guarantees to agricultural projects.

REFERENCES

Anderson, J., Marita, C., Musiime, D. and Thiam, M. (2017). National Survey and Segmentation of Smallholder Households in Nigeria. Understanding Their Demand for Financial, Agricultural, and Digital Solutions. CGAP Working Paper, June 2017. 89 pp.

CBN (2015). Central Bank of Nigeria (2015). Annual report and Statement of Account for the Year Ended December 31, 2015. Central Bank of Nigeria, Abuja Nigeria. 351 pp

Dalton, G. E., (1982). Managing Agricultural Systems. Applied science publishers, London.

Dupriez, H. and Leener, P.D. (1988). Agriculture in African Rural communitie. Macmillan Publishers Ltd., London

FMANR (2011). We will Grow Nigeria's Agricultural Sector. Presidential Brief. Agricultural Transformation Agenda. Federal Ministry of Agriculture and Rural Development, Abuja Nigeria. September 9, 2011.

FMANR (2016). The Agriculture Promotion Policy (2016 – 2020). Building on the Successes of the ATA, Closing Key Gaps. Policy and Strategy Document. Federal Ministry of Agriculture and Rural Development. 59 pp

NIRSAL Plc (2016). Financing and Risk Sharing. A presentation of NIRSAL Plc at the Enable Youth Programme Design Workshop, held at Abuja, April 22, 2016.

NIRSAL Plc (2017). The Roles of Agent Networks in Reaching the Last Inch of the Last Mile. Paper presented at EFInA Breakfast Session ~ July 2017

PwC (2017). Transforming Nigeria's Agricultural Value Chain. A case study of cocoa and dairy industries. PricewaterhouseCoopers Limited Nigeria. 28 pp