



CHALLENGES AND PROSPECTS OF AGRICULTURAL INSURANCE MARKET DEVELOPMENT IN ACHIEVING SUSTAINABLE DEVELOPMENT GOAL (SDG) 8 IN NIGERIA.

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ABSTRACT

Agricultural insurance is a well-established and effective tool for increasing farmers' resilience in the face of various production risks. The objective of the study was to evaluate the challenges and prospects of agricultural insurance market development in achieving sustainable development goal (SDG) 8 in Nigeria. Qualitative and conceptual methods of data analysis were employed to achieve the objectives of the study. The empirical data reveals that agricultural insurance market development is not in a progressive trend as it experiences to rise and fall in the percentage of its premium income, claims and underwriting income, total asset, total liability and reserve etc. Challenges facing agricultural insurance development include; moral and adverse selection, post-disaster relief, absence of infrastructure support, intensive data collection; demand constraints caused low incomes for the vast majority of the population etc. This paper concludes that agricultural insurance market in Nigeria has not been fully developed and therefore needs urgent attention to ensure full economic growth. It recommends among others that the agriculture insurance sector in Nigeria should adopt the new form of insurance, known as index-based insurance, to be in tune with international best practice and investments in data collection systems, and in science-based index development.

Keywords: Government, infrastructure, development agriculture, insurance, market



INTRODUCTION

Agriculture insurance marketing development in Nigeria is frequently affected by the susceptibility of agriculture to natural disasters such as droughts, floods, cyclones, storms, landslides and fire etc. This susceptibility is escalated by the outbreak of epidemics and man-made disasters such as fire, sale of spurious seeds, fertilizers and pesticides, price crashes etc. All these events severely affect farmers through loss in production and farm income, and they are beyond the control of the farmers. With the growing commercialization of agriculture, the magnitude of loss due to unfavourable eventualities is increasing but the agricultural insurance market is not developed in the same proportion. The challenge is how to protect farmers by minimizing such losses. Interestingly, agricultural insurance is considered an important mechanism to effectively handle the risk to output and income resulting from various natural and manmade events.

Agricultural Insurance is a means of protecting the agriculturist against financial losses due to uncertainties that may arise agricultural losses arising from named or all unforeseen perils beyond their control (AIC, 2008). Unfortunately, the agricultural insurance market in the country has not made much predominantly progress even though the need to protect Nigerian farmers from agriculture variability has been a continuing concern of agriculture policy. According to the National Agriculture Policy 2000 cited by Raju & Chand (2007), “Despite technological and economic advancements, the condition of farmers continues to be unstable due to natural calamities and price fluctuations”. In some extreme cases, these unfavourable events become one of the factors leading to farmers’ suicides which are now assuming serious proportions. Repeated income shocks and asset losses can keep farming households trapped in poverty (Kuhn,2016). Eze (2019) noted that the development of agriculture requires financial services that can support larger agricultural investments and agriculture-related infrastructure that require long-term funding (given that currently transportation and logistics costs are too high, especially for landlocked countries), a greater inclusion of youth and women in the sector, and advancements in technology (both in terms of mechanizing the agricultural processes and leveraging mobile phones and electronic payment platforms to enhance access and reduce transaction costs).



Agricultural insurance protects against loss of or damage to crops or livestock. It has great potential to provide value to low-income farmers and their communities, both by protecting farmers when shocks from natural causes (e.g. drought, flood, pests and wind) occur and by encouraging greater investment in crops. There are three types of agents that are active in providing agricultural insurance: the private for profit sector, governments (public), and other, mostly non-profits (mutual groups, NGOs, etc.). Other agencies help finance and initiate insurance programs, including bilateral donors, the United Nations (UN) organizations, multinational development banks, private foundations, and international reinsurers. However, they do not deliver insurance on the ground.

The aim of the study is to evaluate the challenges and prospects of agricultural insurance market development in Nigeria. The specific objectives include to; examine the performance of agricultural insurance market development in Nigeria; investigate the challenges of agricultural insurance market development in Nigeria and to highlight the prospects of agriculture insurance market development in Nigeria.

CONCEPT OF AGRICULTURE

Agriculture is a largely misunderstood concept. According to Otti (2018) all too often, agriculture and farming are used interchangeably leading to a simplistic interpretation of the sector's difficulties. Otti (2018) affirms that while farming is the act of planting seeds and growing food and cash crops or providing animal protein, agriculture, on the other hand, is the whole system of human economic interaction by which food and farm crops enter into a production system in exchange for monetary value. Agriculture, therefore, refers to a value chain that ultimately results in the exchange of money for produce and the subsequent impact of this exchange on the various economic agents involved in the production process. The Co-operative extension system (2014) defines agriculture as the science, art, and occupation of producing crops, raising livestock, and cultivating the soil. Agriculture also comprises; processing, financing, marketing, and distribution of agricultural products; farm production supply and service industries; the use and conservation of land and water resources; health, nutrition, and food consumption; development and



maintenance of recreational resources; and related economic, sociological, political, environmental, and cultural characteristics of the food and fiber system.

Branches of agriculture include Crop production (agronomy, horticulture, and forestry), animal management (animal husbandry, fishery science) and allied agriculture branches (agricultural engineering and home science). The benefits of the agricultural sector to Nigeria's economy include; provision of food, contribution to the gross domestic product (GDP), provision of employment, provision of raw materials for agro-allied industries and generation of foreign exchange.

Concept of Agricultural Insurance

Agricultural insurance is basically designed to provide covers for financial losses incurred due to the reduction in expected outputs from agricultural products (Epetimehin, 2012). Agriculture insurance is a well-established and effective tool for increasing farmers' resilience in the face of various production risks. Farmers who buy the insurance premiums for their agriculture businesses have a big advantage because they are in place to recoup all their losses. Such losses could be in crops, animals and farm inputs. Agricultural Insurance is a more efficient instrument and an effective institutionalized mechanism for dealing with losses in agro-business. It helps to streamline the relief efforts and reduces the direct and indirect costs on the national economy.

The Agricultural Risk Management Team (ARMT) of the Agriculture and Rural Development (ARD) Department of the World Bank developed a holistic approach to analysing and quantifying risk in the agriculture supply chain leading on to risk transfer solutions where appropriate. This approach is referred to as Rapid Agricultural Supply Chain Risk Assessment (RapAgRisk). Table 1 presents a classification of the main sources of risk facing agricultural supply chains along with examples of the risk events that can lead to losses for farmers, input suppliers and output traders and other players in the chain.



Table 1: Classification of the main sources of risk facing agricultural supply chains

Type of risk	Examples
Weather-related risks	Periodic deficit and/or excess rainfall or temperature, hail storms, strong winds
Natural disasters (including extreme weather events)	Major floods and droughts, hurricanes, cyclones, typhoons, earthquakes, volcanic activity.
Biological and environmental risks	Crop and livestock pests and diseases, contamination related to poor sanitation, human contamination and illnesses, contamination affecting food safety, contamination and degradation of natural resources and environment, contamination and degradation of production processes and processing.
Market-related risks	Changes in supply and/or demand that impact domestic and/or international prices of inputs and/or outputs, changes in market demands for quantity and/or quality attributes, changes in food safety requirements, changes in market demands for the timing of product delivery, changes in enterprise/supply chain reputation and dependability.
Logistical and infrastructural risks	Changes in transport, communication, energy costs, degraded and/or undependable transport, communication, energy infrastructure, physical destruction, conflicts, labour disputes affecting transport, communications, energy infrastructure and services.
Management and operational risks	Poor management decisions in asset allocation and livelihood/enterprise selection, poor decision-making in use of inputs, poor quality control, forecast and planning errors, breakdowns in farm or firm equipment, use of outdated seeds, not prepared to change product, process,



	markets, inability to adapt to changes in cash and labour flows, etc.
Policy and institutional risks	Changing and/or uncertain monetary, fiscal and tax policies, changing and/or uncertain financial (credit, savings, insurance) policies, changing and/or uncertain regulatory and legal policies, and enforcement, changing and/or uncertain trade and market policies, changing and/or uncertain land policies and tenure system, governance-related uncertainty (e.g. corruption), weak institutional capacity to implement regulatory mandates.
Political risks	Security-related risks and uncertainty (e.g. threats to property and/or life) associated with politico-social instability within a country or in neighbouring countries, interruption of trade because of disputes with other countries, nationalization/confiscation of assets, especially for foreign investors.

Source: Food and Agriculture Organization (2011)

The Federal Government established the Nigerian Agricultural Insurance Scheme (NAIS) to address the Agricultural insurance was introduced to Nigeria in 1987 through the Nigerian Agricultural Insurance Scheme (NAIS). The mandate of NAIS includes:

- (a) provide financial remediation to farmers after natural hazards,
- (b) Stimulate financial institutions to offer rural credit,
- (c) Promote agricultural production by encouraging investments, and
- (d) Minimize the need for the government to provide assistance after a disaster.



Theoretical Framework

The theoretical basis for this study is value chain theory. This theory was propounded by Michael Porter in 1979. The idea of the value chain is based on the process view of organizations, the idea of seeing a manufacturing (or service) organization as a system, made up of subsystems each with inputs, transformation processes and outputs. The insurance industry is an integral part of the economy. Insurers spread the costs of risk events across time and the population, helping to reduce the impact of major risk events on the wider economy. Therefore, it occupies a position that aids other economic agents to add value in the society. The indemnification and risk pooling properties of insurance facilitate commercial transactions and the provision of credit by mitigating losses as well as the measurement and management of non diversifiable risk more generally. Without insurance coverage, large contingency funds would be needed to protect the agriculture sector against the wide range of risks they face.

Empirical Review

Ntukamazina, Onwonga, Sommer, Rubyogo, Mukankusi, Mburu & Kariuki (2017) investigated Index-based agricultural insurance products: challenges, opportunities and prospects for uptake in sub-Saharan Africa. The specific objectives were assessing and documenting the insurance products available to farmers, factors influencing farmers to purchase insurance products challenges limiting farmers access to insurance products and opportunities that can positively enhance uptake in sub-Saharan Africa (SSA). This review reveals that area yield index insurance, index-based crop insurance and index-based livestock insurance have been piloted or implemented in the region. The uptake of these products was found to be positively correlated with on-farm income/savings, literacy, and family size with estimated coefficients of 0.211, 0.292 and 0.018, respectively; and negatively correlated with premium-rate (-0.183), age of farmer (-0.058), land tenure (-0.800) and farm size (-0.167). Challenges that impede the uptake of index-based products include weakness of regulatory environment and financial facilities, basis risk, quality and availability of weather data, capacity building of stakeholders (farmer, insurer, and regulator), and lack of innovation for local adaptation and scalability. The current gap between high promise and low



uptake calls for farmer-driven product design, strong public-private partnerships and improved quality and availability of weather data.

Abugri, Amikuzuno & Daadi (2017) study was on a better mitigation strategy: smallholder farmers' willingness to pay for drought-index crop insurance premium in the Northern Region of Ghana. They used a multistage sampling procedure to select a sample of 315 farmers from 15 farming communities in the Northern Region of Ghana and obtained from this sample the data needed for the analysis. Then they applied the contingent valuation method to the data and evaluated the premium amount maize farmers in the study area are willing to pay for crop insurance under a hypothetical market-based drought-index insurance regime. In addition, we used the binary probit model to identify the drivers of farmers' willingness to pay (WTP). The results revealed that the premium a maize farmer is willing to pay for crop drought-index insurance is GHS175.25/ha (circa USD39/ha). And while variables such as sex, level of education and perception index unexpectedly reduce farmers' WTP for weather-index crop insurance, others such as women's contributions to agriculture, previous farm income and landownership are significant drivers that enhance farmers' WTP. It is concluded that the premium that maize farmers in the northern region are willing to pay annually per ha of a maize farm is GHS175.25 (USD). The results of the binary probit model revealed that sex, age, education, insurance awareness, regular payment of insurance premium, land ownership, farming methods, farm risk level, the nature of damage caused by an event, women contribution, income and mean perception index of crop insurance are factors that significantly influence the WTP amount for crop drought-index insurance.

Akinrinola & Okunola (2014) evaluated the effects of agricultural insurance scheme on agricultural production in Ondo State, Nigeria. This study was carried out to see how well the objectives of the Nigerian Agricultural Insurance Scheme had been achieved in Ondo State. Multi-stage sampling technique was used to select 120 insured farmers from two local government areas and a well-structured questionnaire was used to collect data from the farmers. The data collected were analyzed using descriptive statistics. The analysis shows that access to credit was the only



reason the farmers participated in the insurance scheme. However, the farmers affirmed that there was an increase in investments which brought about increases in their output. Thus, their accessibility to farm credit could be said to be responsible for these increases. Hence, some of the objectives of the agricultural insurance scheme to increase agricultural production and accessibility to credit had been achieved.

Olubiyo (2009) study was carried out to examine whether agricultural insurance exerted any significant influence on the farming practices in the country. This study tests the broad hypothesis that farmers who purchase insurance increase their exposure to risk by adopting modern farming practices and achieved an increase in resource productivity. The study found that the sampled farmers differ in their use of farm resources and the level of output produced. A higher proportion of insured farmers applied improved farming practices and was more commercially oriented. The insured farmers ventured into more risky enterprises and released a greater proportion of their output to the market for sale. However, contrary to expectations, uninsured farmers were found to be more productive and efficient in their resource use than insured farmers.

The focus on the form of agriculture insurance reviewed was mainly in favour of index-based insurance. Most variables used in the studies as capable of influencing the probability of participation of the farmers in agricultural insurance scheme were largely subjective in nature. In relation to this study, a significant gap was seen in very little consideration given to whether agriculture insurance was seen as useful in the eyes of farmers as a pointer to its possibility of being accepted and marketable. It is believed that the prospects of agriculture insurance in Nigeria lie largely on farmers' perception of it as a superior risk mitigation strategy.

CHALLENGES AND PROSPECTS OF AGRICULTURAL INSURANCE IN NIGERIA

Performance of Agricultural Insurance Market in Nigeria.

The span of the market and opportunities available to the sector can influence the degree of effectiveness it avails to the agriculture community.



Before looking at the challenges of agricultural insurance in Nigeria an overview of the performance of the Nigerian Agricultural Insurance Corporation in proxy for the entire agriculture insurance sector is made;

Table 2: Data on gross premium, gross claims and underwriting income

Year	Gross Premium Written (billion naira)	Gross Claims settlement (billion)	Underwriting Income (billion)
2012	1009679906	100781743	856129116
2013	878787707	203907892	844509861
2014	1243238000	4421000	980134000
2015	1073090000	155943000	941330000
2016	1765639000	429175000	1574546000
2017	1478516000	801910000	1322975000

Source: Nigerian Agricultural Insurance Corporation Revenue Account

It is seen from Table 1 that gross premium written from 1,009,679,906 Naira in 2012 fell to 878,787,707 in 2013. By the next year, it grew again to 1,243,238,000 and kept increasing till 2017. In 2012 Gross claims settlement was 100,781,743 Naira, and then grew to 203,907,892 Naira the next year. However a drastic reduction to 4, 421,000 Naira took place in 2014. Thereafter, gross claims settlement kept growing till 2017. As seen in other parameters underwriting income from 856,129,116 Naira in 2012 fell by 2013. It recovered the following year and fell again in the next. Again in 2016 underwriting income grew to 1,574,546,000 and decreased to 1,322,975,000 in 2017.



Table 3: Data on assets, liabilities and reserves

Year	Total Assets (billion naira)	Total Liabilities (billion naira)	General Reserves (billion naira)
2009	6683223549	401469052	1024975068
2010	6923102711	364524751	3641760376
2011	7366369257	526685484	3871065320
2012	7442,950,142	755385692	3684653418
2013	7170821079	1166272572	2972397791
2014	8668736000	1345627000	3857377000
2015	8540096000	1489581000	3631995000

Source: Nigerian Agricultural Insurance Corporation Summary of Financial Information

Table 3 shows that total assets of the NAIC from 6,683,223,549 Naira in 2009 grew till 2012. The next year it fell and rose again in 2014, finally decreasing to 8,540,096,000 in 2015. Total liabilities fell in 2010 but afterwards, it kept increasing till 2015 at 1,489,581,000 Naira. General reserves grew from 1,024,975,068 Naira in 2009 to 3,871,065,320 in 2011. It decreased over the next two years. It grew again in 2014 but decreased and ended at 3,631,995,000 in 2015.

Challenges of Agricultural Insurance Market Development in Nigeria

At the unveiling of the agricultural roadmap themed “The green alternative : Agriculture Promotion Policy 2016 - 2020,” the Minister for Agriculture and Rural Development, Chief Audu Ogebe informed the audience that Nigeria spends over 22 billion US Dollars annually on importation of various food items like wheat, rice, fish, and poultry products among others. Of this figure, milk and tomato paste importation gulps over one billion dollars and 400 million dollars respectively annually, according to the minister. Consequently, Nigeria is vulnerable to changes in the global agro commodity prices, with significant impact on inflation and foreign reserves. It makes it difficult for insurers to maintain a fixed premium charge. A guiding principle of this policy is focusing the policy instruments for enterprise development across successive stages of the commodity value chains for the development of crop, livestock and fisheries sub-sectors,



namely input supply, production, storage, processing/utilization, marketing and consumption. Building complex linkages between value chain stages will be an important part of the ecosystem that will drive sustained prosperity for all Nigerians. Getting stakeholders across each level of the value chain to participate fully is best enhancing when they have agriculture insurance.

Agriculture insurance has a current coverage of 0.5 million in Nigeria (Nigeria Incentive-Based Risk Sharing System for Agricultural Lending, NIRSAL, 2019). This penetration rate shows the institution is faced with a lot of challenges that have hindered its penetration and growth in the agricultural sector. Some of these fundamental challenges are thus;

There is limited information and information asymmetries cause insurers to shy away from developing products for farmers. Although asymmetric information problems are endemic to all forms of conventional insurance, special problems arise when applied to agricultural production. An ideal condition for the efficient functioning of insurance markets is that individual risks be independent or nearly so so that the aggregate payouts made by insurers are predictable.

Next, is the challenge of moral hazard and adverse selection. Moral hazard, also known as the “hidden action” problem, arises when the purchase of insurance changes the incentives of the insured, prompting them to engage in riskier practices after purchasing the insurance and thus causing the indemnities paid by the insurer to rise. Adverse selection, also known as the “hidden information” problem, arises because the insured is better in-formed of his risk than the insurer. As a result, high-risk individuals tend to purchase more insurance than low-risk individuals, further causing the indemnities paid by the insurer to rise beyond expectations.

Lack of data to develop and price index-based products is often identified as a key constraint to developing effective schemes for agriculture. Data is key to producing viable insurance indexes, and determine the premium price of index insurance products that are relevant to small-scale farmers. Historical data series facilitate the assessment of the variability of weather and yields, hence allowing for an estimation of a premium price based on an objective assessment of the risks



and can hinder the proper modelling of the underlying risk, especially the distribution, leading to the incorrect pricing of agricultural insurance products.

Weather risk can be especially problematic for poor farmers who live at subsistence or near subsistence levels, most of whom do not possess an adequate asset base or ready access to financial services (e.g., credit, deposit facilities, and insurance). Although the effects of catastrophic weather events are felt almost immediately and most profoundly at the farm level, the effects are propagated through the agricultural marketing chain via the contractual relationships that exist among its members (Miranda and Gonzalez-Vega 2011). In particular, agricultural banks, input suppliers, cooperatives, and processors who provide loans to farmers can experience dramatic increases in loan delinquency and default after a catastrophic weather event that simultaneously affects a large number of its farmer-borrowers.

National Insurance Commission (NAICOM) views agriculture insurance as traditional crop insurance. That its products should require the use of farm visits. Products that do not use farm visits, do not fit the regulatory environment, and are in the best case not understood by the regulator, and can in the worst case be prohibited.

Post-disaster relief can be a disincentive for farmers to pay premiums because it serves the purpose of insurance before major losses occur. Lots of farmers see paying the premium as tying down money which they don't have readily in abundance. Disaster payments may further reduce participation in a crop insurance program toward higher-risk individuals because low-risk farmers will count on protection from disaster payments. In this manner, disaster payments reinforce adverse selection problems.

Agriculture insurance markets like Nigeria struggle to reach premium volumes that attract international reinsurers, limiting the growth of the market. Reinsurers report that reinsurance capacity is available for crop and livestock programs that are properly designed and have rates that generate enough premium volume to cover the expected losses, operating costs, and costs of capital



(including profits). International reinsurance markets provide not only reinsurance capacity but also technical expertise. It is in the interest of reinsurers that an agricultural insurance program is properly designed and adequately priced, using international standards for underwriting, pricing, and loss adjustment.

The low level of insurance penetration in Nigeria reflects a limited culture of formal insurance and risk mitigation strategies. Informal methods such as mutual society's and community groupings partially fulfil this function in these markets. Since these groups have limited capacity to price the risks they face, they tend to underestimate the severity of the risks they are essentially self-insuring. This causes resistance once formal insurance is introduced, as it is perceived as expensive.

Prospects of Agricultural Insurance Market Development in Nigeria.

Agriculture is Nigeria's single largest economic sector. The sector is highly concentrated on crop production, which accounts for 90% of output. Fishery, forestry, and livestock account for the remaining 10%. Nigeria has 82 million hectares of arable land, and so far, only 34 million hectares have been cultivated (Price Waterhouse Coopers, PWC, 2017). Over the past five years, the sector has contributed an average of 23.5% to GDP and generated 5.1% of export earnings. This position avails the insurance industry a market that is growing and minimally tapped.

The positive impact of Commercial Agriculture Credit Scheme (CACS) funding on growth in agriculture output sales were recorded across most activity areas as crop production beneficiaries recorded an average growth of 26.69% as against national crop production growth of 9.69%; beneficiaries in livestock production averaged growth of 65.33% as against 12.0% of national livestock income; beneficiaries in fish production averaged growth of 42.63% as against 13.37% of national fish income; beneficiaries in food and beverages manufacturing recorded average growth of 84.26% as against national growth of 10.91%; and the textile industry beneficiaries averaged growth of 35.33% as against national textile growth of 28.46% between 2009 and 2016 (Central Bank of Nigeria, CBN, 2018). The wide span of the agriculture sector that was positively impacted by CACS portrays a wide span of different areas of the agriculture sector for the agriculture insurance industry to cover.



Since CACS inception till December 2016, the sum of N407.362 billion has been released to 487 projects (436 valued at N327.362 billion to private projects while 51 valued at N80.0 billion to State Government Projects). The total releases from the CACS Receivables Account remained at N199.831 billion while the total releases from the CACS repayment account stood at N207.531 billion. The cumulative fund repaid by banks into the Repayment Account stood at 225.009 billion in respect of 445 CACS projects out of which 109 projects had been fully repaid at the end of December 2016. Statements on activities undertaken by the CACS beneficiaries show that, most (80.2%) of the funds were applied to agriculture and agriculture-related activities, by 82.7% of the firms, while 19.8% (N29.2 billion) of the funds may have been applied in the areas not intended under the Scheme by 33 or 17.3% of the beneficiaries. This means the agriculture insurance sector will be receiving growing premium income.

Section 1.14, subsection “d” of Central Bank of Nigeria guideline for commercial agriculture credit scheme (CACS) provides that:

Educate and enlighten the borrower to take NAIC insurance policies for the various items across the agricultural value chain;

Ensure that the borrower obtains NAIC insurance covers as condition precedent to the drawdown/disbursement of the loan; (ix) Calculate the premium due, in consultation with NAIC, in respect of the various insurances that would be effected on the projects of the borrower and deduct the premium from the approved loan on behalf of NAIC. The lending bank shall apply the pre-determined premium rate supplied by NAIC from time to time. Alternatively, the premium could be paid by the client and the receipts and insurance policy submitted to the bank;

From the provision above it is seen that insurance is always required of a farmer that wants to partake in the financial provisions under agriculture credit scheme (CACS). This shows the agriculture insurance sector will always receive offers for cover as long as funds are disbursed to farmers.



CBN recently introduced the Real Sector Support fund; a facility meant to provide cheap funding at no more than nine per cent to new projects in the agriculture and manufacturing sectors; aimed at boosting output and creating jobs. In the agriculture sector, CBN through the Anchor Borrower Programme had ensured that Nigeria emerged from being a net importer of rice to becoming a major producer of rice, supplying key markets in neighbouring countries. As of October 2018, CBN holds that a total number of 862,069 farmers cultivating about 835,239 hectares, across 16 different commodities, had so far benefited from the Anchor Borrowers Programme, which had generated 2,502,675 jobs across the country.

It is in light of the success of the Anchor Borrowers Programme with regards to cultivation of rice and maize that the Monetary Policy Committee in its last meeting on the 21st of November, 2018 recommended that the Anchor Borrowers programme be applied to other areas such as palm oil, tomatoes and fisheries to mention a few (Emefiele, 2018). Cheap funding serves as an incentive for more farmers to apply for a loan which if they do will compulsorily require them to obtain agriculture insurance cover.

CONCLUSION AND RECOMMENDATIONS

Agriculture insurance has been designed to unlock particular opportunities for farmers that were previously constrained by particular risks. This can be fully achieved when the agricultural insurance market in Nigeria has been fully developed for economic growth.

Apart from Nigerian Agricultural Insurance Scheme (NAIC), whose sole responsibility is Agric insurance, underwriting firms such as; Linkage Assurance, Leadway Assurance, IGI Plc, AIICO Insurance Plc, Royal Exchange Plc, among others should join hands with the industry to deliver the much needed protection to the different players in the agricultural value chain. In order to further boost the market available for agriculture insurance, National Insurance Commission has initiated the Index-Based Agricultural Insurance (IBAI) pilot scheme. In the wake of all these, it is concluded that agriculture insurance providers in Nigeria strategically should be major players



in offering agriculture insurance in a bid to deliver the much needed protection to the different players in the agricultural value chain.

Recommendations

The following recommendations are made:

A new form of insurance, known as index-based insurance, has been introduced to the agricultural sector since the mid-1990s. In index insurance, coverage is based not on actual crop, livestock or income losses, but on an objectively measurable ‘index’ that is correlated with losses. Index insurance seeks to provide cover against specific threats that can be captured by the selected index, generally at aggregate scales rather than at the level of individual farms (Hess & Hazell 2015). The most common indices are the amount of rain during a certain window of time (weather-based indices) or average yield losses measure over a larger region (area yield indices), although an expanding range of remote sensing and model-based data is being used or considered. Payouts are triggered when the index exceeds a pre-specified threshold. The agriculture insurance sector in Nigeria should adopt the same to be in tune with international best practice. There should be mainstreaming of agriculture insurance awareness and education policies nationwide with a focus on small scale farmers and women. Pilot processes should be used to gradually grow farmers into participation in agriculture insurance. This will scale up farmers understanding of and trust in agriculture insurance.

Agriculture insurance service providers should assess the current needs and risks that are relevant to the farmers’ perspective. In addition, they should also build mechanisms to continuously monitor and respond to farmers’ evolving needs. Inter-stakeholder collaboration should be consistent to facilitate the exchange of ideas on the development and expansion of agricultural insurance for the benefit of farmers.

Contribution to Knowledge

This research will contribute to the body of knowledge by serving as a reference point for the literature review on research majority on related agriculture insurance development in Nigeria.



The study points out that agriculture insurance can grow speedily when its capacity to influence positively the actions across each level of the agriculture sector value chain in Nigeria. It is believed that the prospects of agriculture insurance in Nigeria lie largely on farmers' perception of it as a superior risk mitigation strategy.

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