Global Advanced Research Journal of Agricultural Science Vol. 1(5) pp. 097-103, July, 2012
Available online http://garj.org/garjas/index.htm

Review

Nigeria Agricultural Insurance Scheme (NAIS): Prospect, Achievement and Problems

Aina O.S.[1] and Omonona B.T.[2]

(1) Department of Horticultural Technology, Federal College of Horticulture, Dadinkowa, P.M.B. 108, Gombe.
(2)Department of Agricultural Economics, Faculty of Agriculture and Forestry, University of Ibadan, Nigeria.

Accepted 25 June, 2012

The place of agriculture in any society cannot be easily quantified given its importance in the life of human beings. Agriculture is expected to ensure adequate supply of food to the people, therefore, the need to set up food production to meet the ever increasing population in Nigeria. In 1960 and early 1970s, there was a growing dissatisfaction with the *econocratic* perspective of development which places premium on economic indicators as economic growth rates and industrialization. Agriculture, unlike many other investment activities, is exposed to a wide variety of risks and uncertainties ranging from input supply and prices, agricultural yield, post harvest losses and product prices to the vagaries of nature such as inclement weather conditions, pests and diseases. Other natural hazards such as floods and fire outbreaks are equally important with regards to their impact on the success or failure of an agricultural enterprise. In order to boost agricultural production considerably, it is imperative to reduce the impact of these risks and uncertainties to the barest acceptable minimum. The need, therefore, for a mechanism that functions specifically, to keep the farmers in business cannot, be over emphasized, and hence, the need for an agricultural insurance scheme in Nigeria. Natural disaster as floods and droughts are beyond the control of borrowers and the lending institution. These risks and other which include fire out breaks are transferred to insurance companies. In Nigeria there is National Agricultural Insurance Company (NAIC), operating in Nigeria since 1987, with the main objective of protecting the farmers from devastating effects of natural disasters and to ensure payment of appropriate compensation sufficient to keep the farmers in business after suffering a loss. This has lead to increase in agricultural production level in the country. This paper tries to examine the prospects, achievement and problems of Nigeria Agricultural Insurance Scheme/Company (NAIS/NAIC).

Keywords: Insurance, Agriculture, Scheme, Prospect, Achievement, Nigeria.

INTRODUCTION

Agriculture has been provider of food for teeming population and the largest employer of labor force in the country (Amaza, 2000). The Nigerian agriculture as in most developing countries of the world is anchored mainly on subsistence farming methods. In this regards small scale farming operators producing about 80% of the total food production for the ever increasing population, operate on fragmented farm of between 0.5 – 2hectares (Salami, 1994). The federal office of statistics (2006) recorded that food production grew at a rate of 3.5% with an annual population growth rate of 2.83%.

*Corresponding Author Email:ainaoluwatunmisesunday@yahoo.com;
Tel: 08035780411

In a desperate bid to solve the country's food and nutrition problems, various food related policies, programmes and projects were put in place. In spite of various programmes and projects, the food problems continued unabated and food importation had to step up. Aderinola et al (2007) gave the following reasons for the perpetual food deficits:

- Lack of dramatic breakthrough in agricultural research,
- High risks and uncertainties often associated with agricultural production,
- Unwillingness of the entrepreneurial class to devote organizational abilities to agricultural production,
- Inefficient marketing and distributional system,
- Low status accorded farmers in the society, and
- Rural-urban migration of the rural youth.

Furthermore, there is the institutional constraint especially the weak linkage between agricultural extension and research services that have widened communication gap between farmers and policy makers, and inadequate credit to agricultural sectors to finance modern farming technology (Soniran, 1991).

Avery important problem faced by farmers and agricultural business enterprises is that it is characterized by considerable risk and uncertainties which stem from its predominant dependence on nature. This is because agriculture requires extensive direct and continuous contact with the forces of nature. These risks are unforeseen and they are beyond the control of the farmers. Farmers face considerable losses of investment and income due to the losses resulting from these risk and uncertainties. Because of this, Ajakaiye (2001) stated that small farmers in many developing countries of the world including Nigeria are trapped in the vicious cycle of poverty. This cycle is characterized by low productivity and low farm income which leave them with virtually no saving as capital required in the transformation of their production technology.

However, with Agricultural Insurance, farmers can be saved from these losses or damage to crops and livestock or the effect of which can be minimized. According to Ray (2001), crop insurance in developing countries can:

a. cushion the shock of disastrous crop losses in bad year,

b. help to ensure a considerable measure of security in farm income over the years and this contribute to the stability of the agriculture and in turn the general economy,

c. improve the position of farmers in relation to agricultural credit,

d. strengthen the position of the agricultural cooperative societies as a result of the strengthening of the economic position of the farmers, the credit institution can thus be more liberal in providing the much needed credit to the farmers, accepting crop insurance contracts as collateral,

e. give the farmers greater confidence in adopting new and improved farming practices and in making greater investment in agriculture for improving crop yields and increasing agricultural production, and

f. help to replace sporadic and haphazard grant and relief operations which government in developing countries are frequently called upon to undertake in emergencies by a pre-planned and actuarially calculated system of compensation awards under which the parties concerned-government and farmers generally know in advance their respective liabilities and the farmers in particular know the extent of protection available in case of unavoidable losses of their crops.

Ray (2001) concluded that no sustained and steady development of the developing countries is possible without some form of crop-agricultural insurance to underwrite risks of crop-agricultural failure.

Agricultural Insurance therefore is a necessary part of the institutional infrastructure essential for the development of agriculture which is basically a high risk enterprise. Based on the above roles of agricultural insurance as panacea to alleviate some of the problem militating against agricultural insurance in Nigeria, the Nigerian agricultural insurance scheme (NAIS) was formed in 1987 by the federal government. The scheme has been in operation since then.

Agricultural Insurance: Risk and Uncertainty

Agricultural insurance is defined in the Nigerian Agricultural Insurance scheme (NAIS) operation guideline (1989) as the stabilization of income, employment, prices and supplies of agricultural products by means of regular and deliberate savings and accumulation of funds in small installment by many farmers in favorable time periods, to defend some or a few of the participants in bad time periods.

Mabawonku (1998) defines insurance as the elimination of the uncertain risk of loss for the individual through the combination of a large number of similarly exposed individual who can contribute to a common fund, premium payment sufficient to make good the loss caused by any one individual. These definitions are consistent with Hansel (1998) which defines insurance as a social device providing financial compensation for the effects of misfortune, the payment being made from the accumulated contributions of all parties particularly in the scheme.

Thus, it may be seen as a kind of fund, into which all those insured will pay an assessed contribution (called premium), in return, those insured will have right to call on the fund for any appropriate payment should the insured event occur.

The needs for agricultural insurance arose because the sector is exposed to varieties of risk and uncertainties. Risk and uncertainties often used interchangeably, have different connotations. Mabawonku (1998) defines risk as variability's in outcome which are measurable in an empirical or quantitative manner. Such outcome or situations are generally characterized by measurable probability. Mabawonku, however, viewed uncertainty as situation or outcomes with quantitative valuations measured with any degree of accuracy.

Farmers have different attitude towards risk. Some farmers are risk a versed, some are risk neutral while other are risk preferrers:

Risk Aversion:- Is the tendency to avoid higher risk as much as possible, not having a good disposition to taking a higher risks. A risks averter farmer may take risk only if the higher risk is accompanied by a more than proportionally higher expected profit.

Risk Preference:- Is the tendency to enjoy taking higher risks; to this decision maker, there is a utility attached to the act of taking risk which is distinct from the utility of expected reward. The risk preferrer therefore will accept a higher risk for less than proportionate increase in the expected profit.

Risk Neutral:- Is the tendency not to enjoy or loathes taking higher risks. It means that the risk neutral an increase in risk must be accompanied by a proportionate increase in the expected profit.

Colman and Young (1998) reported that farmers in developing countries are risk a versed. This implies that he is willing to forgo some income in order to avoid risk. It is imperative at this point to add that not all risk is insurable. The conditions of agricultural risk to be insurable in Nigeria are as given by Mabawonku (1998). He states that insurable risk:

- Must be of fortuitous character,
- It should be measurable in large number,
- The cost of insurance or premium should be within the means of the average farmer.

In line with condition for insurability of risk given by Mabawonku, (1998), Adegeye and Akinwumi (1988) reported that the probability of occurrence of death, fire losses, accident are measurable and hence insurable only because the number of observation is sufficiently large and is independently randomly distributed. Furthermore, risk and uncertainty that resulted from natural hazard result in losses of not only on the field but also, during storage, packaging and marketing of agricultural commodities. Pests, diseases and parasitic attacks have been found to be the hazard that occurs most frequently on the farm annually and they cause a very high percentage of both field and post harvest losses of agricultural commodities.

Adegeye and Okunmodewa (1998) observed that most analyst call pilfering a social risk, but in their (Adegeye and Okunmodewa) view, the extent to which they affect the total yield of crops and livestock (especially when pilfering is at growing stage, substantial and not detected) make it a major farm hazard to reckon with.

Historical Background of Agricultural Insurance in Nigeria

Agricultural insurance as an alternative for risk management actually started as crop hail insurance in Europe more than 100years ago and spread to the United State at the beginning of the century. It has since been embraced by a lot of develop and developing countries of the World viz: USA, Canada, Japan, Mexico, Brazil, Bolivia, Coast Rica, Panama, Mauritius, India, Australia, I ran, Sri Lanka, Zambia, Philippine, Israel, Chile, Jamaica, Egypt, Cyprus, Sweden, Bangladesh and Venezuela – with varying degrees of successes and failures.

In Nigeria, commercial agricultural insurance scheme was pioneered by Niger insurance in May, 1987. National Insurance Corporation of Nigeria (NICON) fully owned by the Federal Government and the National Cooperative Insurance Society of Nigeria (NCISN) were also known to have operated insurance schemes with agricultural implication on a limited commercial scale. Similarly, some banks such as the United Bank for Africa (UBA) and Union Bank of Nigeria which were actively involved in giving credit facilities to the agricultural sector had to raise the sum assured of life assurance of loan applicants to qualify as suitable collateral for providing loan.

Agricultural insurance scheme (NAIS), which was formerly launched on the 15th of December, 1987, was later followed by the incorporation of the Nigeria Agricultural Insurance Company (NAIC) in 1988 to implement the scheme.

Objectives of Nigeria Agricultural Insurance Scheme

The broad objective of the Nigeria Agricultural Insurance Scheme (NAIS) is to offer protection to the farmer from the effects of natural disasters and to ensure payment of appropriate compensation sufficient to keep the farmer in business after suffering a loss.

The scheme is designed specifically to:

(a) Promote agricultural production since it would enhance greater confidence in adopting new and improved farm practices and in making greater investments in the agricultural sector of the Nigeria economy, thereby increasing the total production;

(b) Provide financial support to farmers in the event of losses arising from natural disasters;

(c) Increase the flow of agricultural credit from lending institutions to the farmers;

(d) Minimize or eliminate the need for emergency assistance provided by Government during period of agricultural disasters.

Perils Under Cover

The perils covered under the crop sub-sector are fire, lightning, windstorm, flood, drought, pests and diseases. For livestock, the perils covered are death and injury due to accident, disease, fire, lightning, storm and flood. Losses caused by negligence or by willful damage are not covered. Similarly, political risks and losses resulting from social risks, e.g. riot, mutiny, revolution, etc. are not covered.

The insured under the scheme is required to meet the conditions for good crop and livestock husbandry as laid down in the guidelines/policies provided by NAIC.

Risk Management

As stated earlier risk is an inherent component of life and therefore cannot be eliminated. The ability to manage and control a risk is the best way to tackle the issue of risk. According to official newsletter of Farm Management Association of Nigeria (FAMAN), 2000, financial success in farming is heavily dependent upon the ability of the farmers to reduce risk and uncertainty or to improve his risk bearing ability. The ability to control or reduce risk is referred to as risk management. Sonka and Patrick (2000) define risk management as the selection of alternative course.

Oyekole (2002) and Otegbolade (2002) give the working definition of risk management as the identification, evaluation and economic control of risk that threaten the assets and earnings of a business or other enterprises. The objective of risk managements Oyekole (2002) and Otegbolade (2002) went further to make the most efficient pre-loss arrangement for post-loss balance between resources needed and resources available to preserve the effective operation of the business.

The following methods can be used by farmers to handle agricultural risks. These are measures that can guarantee them some minimum income or wealth in the face of either natural or manmade hazards, as summarized by Wallace (1988), Otegbolade (2002), Irukwu (2001) and Osoka (2002). These include the following:

(i) Risk avoidance,
(ii) Risk assumption,
(iii) Risk reduction,
(iv) Risk transfer,
(v) Risk sharing and
(vi) Self insurance.

Before the commencement of operation of Nigerian Agricultural Insurance Scheme (NAIS) in 1988, Nigerian farmers have been using some risk management techniques to cope with agricultural risk. Mabawonku (1998) states that Nigerian farmers have been coping with agricultural risk before he establishments of NAIS through diversification , that is, the growing of more than one crop on a plot of land, each with different moisture requirement and different gestation period and management requirements. Sorrenson (1984) had earlier agreed that diversification guaranteed farmers some minimum income or wealth in the face of either natural or manmade hazards.

Additionally, Dittoh (1988) report that risk management techniques in tree crops production differ significantly from that of animal and crops because of inflexibility in the tree crop production. He states informal risk management techniques in tree crop production before the commencement of NAIS are:

(i) Conservation,
(ii) Engage in non-farm income generating ventures,
(iii) Mixed cropping and mixed farming,
(iv) Hedging and
(v) Agriculture price support or guaranteed minimum pricing.

Prospect of Nigeria Agricultural Insurance Scheme

Agricultural sector is exposed to all normal business risks and uncertainties as well as other natural calamities which are not only unpredicted but fall outside the control of individual farmer. This situation leads to low production in Agriculture. As a result of this, a series of scheme were introduced to alleviate these problems. Mabogunje (2000) outline some of these schemes, they include:

(i) Plantation Agriculture Development Scheme between 1950's and 1960's
(ii) Farm settlement schemes, since the late 1950's
(iii) Government owned food companies or corporation in the 1970's
(iv) The National accelerated food production programme in the 1970's
(v) 0peration feed the Nation in1978
(vi) World Bank Assisted Agricultural Development Projects, 1974
(vii) River Basin Development Authority
(viii) The Nigeria Green Revolution.

Other government programmes include Directorate of Food, Road and Rural Infrastructure (DFRI) and now Nigeria Agricultural Insurance Company with the main objective of protecting the farmers from devastating effects of natural disasters and to ensure payment of appropriate compensation sufficient to keep the farmer in business after suffering a loss and consequently improve Agricultural production level. Adegeye and Akinwumi (1988) are of the view that apart from protecting farmers against losses, an insurance scheme would enhance farmer's ability to obtain loan from financial institutions thereby increase their total production. Adeyemi (2000) confirms that crop insurance policy is a viable tool for increasing crop production and promoting exports thus promoting agricultural sectors as whole. In the same vein, Ejemai (2002) highlight the benefits of agricultural insurance to include expanded agricultural output. This is possible because the policy holders are assured of a certain income in a case of crop and livestock failure. This may include them to take more risk in an attempt to increase production.

Jafiya and Toro (1998) state the NAIS is linked to Agricultural Credit Guarantee Fund Scheme (ACGFS) operated by the CBN, and to the agricultural loan scheme from the public sources, The linkage makes it mandatory to farmers obtaining such loans to insure their farms under the NAIS. The NAIS and ACGFS are complimentary or mutually reinforcing each other. The ACGFS guarantees bank against loan defaulters and not farmers where as under the NAIC scheme; farmers are protected against losses resulting from natural hazards. NAIC does not give banks guarantee of loan payment in the event of defaults unrelated to natural hazard which the ACGFS does.

Achievement of Nigeria Agricultural Insurance Scheme

With regards to achievements, the NAIC premium income for 1989–1993 was ₦50,121,115. This figure increased in 1994–1998 and 1995–1999 to ₦76,959,078 and ₦114,049,706 respectively (WAICA, 2000). The figure increased in 2000–2004 and 2005–2009. The claim for the year 1989-1993, 1994-1998 and 1995-1999 were ₦2,410,000, ₦15,662,236 and ₦35,197,000 respectively. These represent a loss ratio of 4.0 (WAICA Journal, 2001). From the figures given above, it can be seen that an attempt has been made to relieve farmers of the pains of losses suffered from natural disaster. On the whole Irukwu (2001) noted that the claim even experienced under the scheme has been relatively good after making allowance for some fraudulent and grossly exaggerated claims.

As earlier indicated, the scheme was established to provide security for all categories of farmers, namely: small, medium and large-scale holders, either in groups or as individual. The insurance cover is compulsory for farmers that benefit from any form of agricultural credit scheme operated by approved lending institutions or agencies for the agricultural items covered under the scheme with since 1st January, 1989. Most transaction was made by or through the lending institution. The scheme also provides cover for self financed farmers, Government sponsored or assisted projects, etc. in which institutional credit facilities may not be involved. In this case, payments of premium and request for any compensation were made directly to the company by the individual farm or group.

Problems of Nigeria Agricultural Insurance Scheme

The efficiency of agricultural insurance in reducing farmer's losses has not been in doubt but the constraints to its smooth operation have been envisaged by many authorities. Jafaya and Toro (1998) envisaged that the following problem might hinder the smooth operation of the agricultural insurance scheme in Nigeria:

(i) Inadequate infrastructure and administrative facilities

(ii) Shortage of trained manpower

(iii) Ignorance of farmers on the functions and merit of the scheme

(iv) Non-availability and unreliability of data useful for insurance purpose and

(v) Inadequate and untimely funding

These problems have been confirmed by Jafaya (2002) to be among the problems militating against the effective and efficient operation of the Nigerian Agricultural Insurance Scheme (NAIS). It is necessary to make a brief analysis of these problems;

(i) Inadequate Infrastructure and Support services

Inadequacy of infrastructural facilities such as good roads and other efficient means of transportation, good communication facilities, uninterrupted power supply, could hamper the successful operation of the scheme. These facilities are needed in order to facilitate prompt and speedy intimation of losses by the farmers for assessment of losses and payment of indemnities.

(ii) Inadequate funding

Adequate and timely funding of the scheme will be essential for its success. Agricultural insurance is a very costly venture and as such, arrangement for adequate funding should be made. Delay in approving and releasing funds and especially undue political interference in funding and management of the scheme will affect its success.

(iii) Lack of Trained Personnel

The scheme requires the availability of personnel trained in agriculture and insurance at the national, state and local government levels as evaluator, supervisors, loss adjusters, salesmen and extension staff. The country is short of this cadre of personnel.

(iv) Ignorance and Lack of Awareness of the Scheme by Farmers

The ignorance and lack of awareness by the majority of farmers of the need, practice and lack of awareness by the majority of farmers of the need, practice and values of agricultural insurance, constitute problem to the scheme.

(v) Lack of Data

A major problem affecting the scheme is the dearth of data on farm operations, particularly on crop yields and losses arising from natural hazards. These data are necessary for the computation of premiums and indemnities.

CONCLUSIONS AND RECOMMENDATIONS

Modern technology and agricultural insurance are not mutually exclusive. Rather, they should be seen as both complementary and mutually reinforcing. This is because uncertainties in Agriculture transcends the production stage, to include special processes such as harvesting, storage, good-in-transit, pilfering and marketing (prices) because of the perishability nature of agricultural products. Nigeria has made a decent start to tackling its agricultural albeit rural problems. The macroeconomic reforms that have been instituted have elicited some modest supply response. There has been growth in the agricultural sector. The growth has touched virtually all the sub-sectors of agriculture which has lead to an increase in hectarage cultivated. At the same vein there is need for government agencies to address in fractural challenges which constrain productivity.

The scheme should be made compulsory for farmers obtaining institutional credit for the following reasons:

(a) Institution lenders would be encouraged to lend more for agricultural production because of added security of insurance for the loans;

(b) Farmers will be encouraged to take more credit for increased agricultural production when provided with insurance cover against natural hazards i.e. drought, floods pests, diseases etc;

(c) Bank loan repayment will improve because of added supervision of farmers activities by the insurance Agency and other institutions participating in the operation of the scheme;

(d) Administration of the scheme will be made simple because:

(i) Services of existing financial institution will be utilized;

(ii) Premium will be built in and deducted straight from the loan for payment to the Agency by the financial institution;

(iii) Insurance contracts are made between the insurance Agency and the lending institutions rather than directly with the farmers;

(iv) Indemnities are paid to the farmers through the credit institutions and

(v) Compulsion for insurance is easily enforced

However farmers not taking institutional credit can avail themselves of the protection offered by the scheme.

REFERENCES

Adegeye AJ , Akinwumi JA (1988). Instituting on insurance scheme for agricultural in Nigeria".Quarterly Journal of Administration, University of Ife, Ile-Ife, Nigeria.

Adegeye AJ, Okunmadewa F (1998). The administration of insurance in selected countries of the World, lesion for Nigeria agricultural insurance scheme. Workshop paper on risk management And the administration of insurance in Nigeria, Department of Agricultural Economics, University of Ibadan.

Aderinola EA, Abdulkadri AO (2007)." Resource Productivity of Mechanized food crop farm in Kwara State Nigeria", Delta Agriculturist, vol. 2, pp 59-71.

Adeyemi FM (2000). The role of the Agricultural Insurance Scheme in crop production and Export promotion in Nigeria. Unpublished M.Sc (Agric. Economics) Thesis, University of Ibadan, Nigeria.

Ajakaiye MB (2001). Banking industry and the development of Agriculture. An assessment and future prospects. Paper presented at a seminar organized by financial institution training center on 27th June, 2001.

Amaza P.S. (2000)." Resource-use efficiency in food crop production in Gombe State Nigeria". Unpublished PhD Agricultural Economics Thesis, University of Ibadan.

Colman D, Young T (1998). Principle of Agricultural Economics: Marketing and price in less developed countries. Cambridge University press.

Dittoh S (1988)." Risk and Risk Management in Tree/Cash crop production in Nigeria". Workshop paper on risk management and administration of agricultural insurance in Nigeria. Department of Agricultural Economics, University of Ibadan.

Ejemai S (2002). The role of agricultural insurance in agricultural development in Akwa-Ibom State. Unpublished B.Agric. Thesis University of Uyo, Nigeria.

FAMAN (2000). Farm Management Association of Nigeria (FAMAN) Newsletter volume 2, No2 April-June, 2000.

Federal Office of Statistics (FAO) (2006). Poverty and Agricultural Sector in Nigeria.

Hansel DS (1998). The elements of insurance. 4th edition, M & E Hand books: Account and finance, first published in 1970.

Irukwu JO (2001). "Agricultural Insurance marketing in the 1990's". A paper presented at the 2001 NAIC management conferences. Published by WAICA Journal volume xv, 2001.

Jafiya IA (2002). Interview in the farmers shield: A House Journal of the Nigeria Agricultural Insurance company.

Jafiya IA, Toro BL (1998)." Essential features of the Nigeria Agricultural Insurance schemes". Workshop proceeding on; the role of financial institution in the operations of the Nigeria agricultural insurance scheme.

Mabawonku (1998). "The concept of insurance with particular reference to agricultural enterprise in Nigeria". Workshop paper on risk management and administration of insurance in Nigeria, Department of Agricultural Economic, University of Ibadan.

Mabogunje AL (2000). Mobilizing Nigeria's grass root for increased food production. Reaching out from the center: food policy volume 15, No 4 page 306-375.

Nigeria Agricultural Insurance Scheme (NAIS) (1989). Operational guideline for the Nigerian Agricultural Insurance Company. April, 1989.

Osoka O (2002). "Risk management and insurance". Insurance and the Nigeria Economy, panacle publications.

Otegbolade LA (2002). "The dimension of risk". The farmers shield: a house Journal of the Nigeria Agricultural Insurance Company, 2002.

Oyekole OD (2002). "Agricultural Risk Management, an insurance option". The farmers shield: A house J. the Nig. Agric. Insurance Company, 2002.

Ray PK (2001). Agricultural Insurance: Theory and practice and application to Developing countries. 2nd edition oxford pergamon press. First published in 1967.

Salami OA (1994). An economic analysis of the Nigeria Agricultural insurance company, (NAIC) in Ondo State, Nigeria. Unpublished M,Sc Agricultural Economics Thesis, University of Ibadan.

Soniran TO (1991). An evaluation of the effectiveness of insurance scheme on banks' lending to agricultural sector. Unpublished M.Sc Banking and finance thesis, University of Ibadan.

Sonka S, Patric G (2000). Risk management analysis development, performance; process MSU Bureau of business and economic research graduate school of business administration. Michigan State University.

Sorenson VI (1984). Agricultural market Analysis Development, performance, process, MSU Bureau of Business and economic research graduate school of business administration. Michigan State University.

Wallace J (1988). "The fire causes and technical field intelligence work of the joint fire research organization". Journal of Royal statistics. London volume III page 130.