

RESPONSE OF FARMERS TO AGRICULTURAL INSURANCE IN KOGI STATE, NIGERIA

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ABSTRACT

This study conducted in Kogi and Adavi Local Government Areas of Kogi State, assessed farmers response to the Agricultural Insurance Scheme of the Nigerian Insurance Company (NAIC). The willingness of farmers to take up the scheme was also determined. The data obtained were subjected to descriptive statistics and multiple Regression analysis. Overall, farmers response to the scheme was poor. Fifty-two (52) percent of respondents were aware of the scheme, but no farmer took an insurance cover. The major sources of information about the scheme were through Extension Agent, and via Radio. Forty-eight (48%) percent of the farmers came to know about the scheme for the first time during the questionnaire administration. Mounting an aggressive grass-root enlightenment campaign which will involve the Kogi Agricultural Development Project through the Monthly Technological Review Meetings (MTRM) and Fortnightly Training (FNT) are suggested as possible ways of improving farmers response to the scheme.

**Key words: Response, Agricultural Insurance.*

INTRODUCTION

Agriculture in Nigeria is faced with a lot of risks and uncertainties such as flood, drought, fire outbreak, disease and pests attacks.

Agricultural Insurance is one of the ways by which farmers transfer or share risks he is faced with since he cannot predict the probability of occurrence of these risks and uncertainties. Agricultural Insurance has been described as an economic component of farm management designed to reduce the adverse effect of natural disasters on farmers' income

through the payment of indemnity (Yamauchi, 1973).

The Nigerian Agricultural Insurance Scheme (NAIS) which was launched by the Nigerian Government on 15th December, 1967 in Kaduna, largely funded by the Federal and State Government and entirely managed by the Nigerian Agricultural Insurance Company (NAIC) has the following objectives:

1. to provide financial relief or compensation to farmers in the event of crop and livestock losses resulting from effects of natural hazards such as crop failure;

2. to encourage the provision of credit by financial institutions to farmers since Agricultural Insurance contract policies would be expected as collateral by them;
3. to minimize or eliminate the need for emergency assistance provided by government during agricultural disasters;
4. to promote agricultural production by encouraging the adoption of new and improved farming technologies and in making greater investments in the Agricultural Industry; and
5. to reduce unemployment or underemployment amongst farmers to the extent of which crop and livestock failures are the contributing causes.

The scheme currently covers the following crops and livestock; maize, rice, yam, cassava, millet, groundnut, wheat, sorghum, cattle, pig, and poultry. Sheep and goats are covered on pilot basis. The premium on insurance cases for these crops and livestock are subsidized 50% by the Government. However, premium for other crops, plantation crops, farm machinery, building and other tangible fixed assets on the farm attract full commercial rates because they are not subsidized. The scheme is for all classes of farmers. Crop coverage include both sole and mixtures.

The premium income of NAIC for 1990 was put at N8.16m, with mixed crops contributing the highest from the crops subsector. The company also reported an expenditure of about N1.12m from the inception of the scheme to August, 1990. This amount is less than 10% of the gross premium income. This clearly indicates that the scheme is profitable as far as the

company is concerned (Ilu and Chikwendu, 1994). How about the farmers, especially the small scale ones? Are they aware of the scheme? Do they know its benefits to them? What are the determinants of their willingness to take agricultural insurance cover? These are some of the questions the present study addresses. The objectives of the study were to.

1. determine the awareness of the farmers about NAIS;
2. study the farmers willingness to take agricultural insurance cover;
3. determine whether the farmers know about the benefits derivable from NAIS.

METHODOLOGY

One hundred and eight farmers were randomly selected from five villages in Kogi and Adavi Local Government Areas in Zone C of the Kogi State Agricultural Development Project (ADP). These included; Osara, Oshokoshoko, Danda, Sarkinoma, Felele and Obayana. In each village 30 farmers were interviewed. Kogi State is in the Middle Belt of Nigeria and is characterised by guinea savannah and forest type of vegetation. Zone C of Kogi ADP is noted for low land rice production and maize. The low land area where rice is grown is prone to flooding and therefore a high risk area to insure their crops against flooding and other hazards.

Structured questionnaires were administered to the randomly selected small-scale farmers between June and July, 1995. The data collected were analysed using descriptive statistics and regression analysis. In analysing the determinants of willingness of farmers to take agricultural insurance cover, the least squares technique was employed to estimate the inefficients. The a priori assumption was that a significant relationship existed between the

willingness on the part of farmers to insure their crops/livestock and their educational level, age, years of experience in farming, farm size, membership of farmers' association/cooperative and contact with extension.

The model is specified as follows:

$$Y_1 = A_0 + A_1X_1 + A_2X_2 + A_3X_3 + A_4X_4 + A_5X_5 + A_6X_6 + U$$

Where,

- Y_1 = Willingness to insure crop/livestock (Dummy, 1 if willing to insure and 0, otherwise).
- X_1 = Age of farmer (years)
- X_2 = Experience in farming (years)
- X_3 = Literacy level (years)
- X_4 = Farm size (ha)
- X_5 = Membership of farmers' association/cooperative (Dummy, 1 if member and 0, otherwise)
- X_6 = Number of contact with extension in a month
- U = Error term.

RESULTS AND DISCUSSION

Awareness of Nigerian Agricultural Insurance Scheme and Adoption of Agricultural Insurance:

About half of the respondents (48.3%) were not aware of the Nigerian Agricultural Insurance Scheme and the benefits derivable from it (Table 1). Of the 51.7 percent that were aware of the scheme, no farmer took agricultural insurance policy (Table 2).

Source of Information About NAIS

Among the respondents who were previously aware of the Nigerian Agricultural Insurance Scheme, Extension Agents were the major source of information about the

scheme. As much as 58.1 percent of the respondents, first heard of the scheme through the extension agent. Radio was the second most important source of information about the scheme. This implies that extension service has been actively involved in dissemination of information concerning the scheme to farmers (Table 4).

All the farmers who were not aware of the benefits derivable from the scheme, came to know about the scheme for the first time during questionnaire administration.

Farmers Willingness to Insure

Table 3 shows the distribution of respondents according to their willingness to take agricultural insurance cover. The data therein show that even after explaining the benefits of agricultural insurance to the farmers during questionnaire administration about forty-two (41.7%) percent still were not willing to take an agricultural insurance cover. 58.3 percent still were not willing to take an agricultural insurance cover. 58.3 percent indicated interest in taking an insurance cover. Most farmers were skeptical about the insurance company being able to pay their indemnity. What then are the determinants of farmers' willingness to take an insurance cover?

Table 5 shows the result of a multiple regression analysis of factors that determine farmers' willingness to insure their crops and/ or livestock. The R^2 (coefficient of multiple determination) is 0.712, which meant that about 71 percent of variation in farmers willingness to take insurance cover were explained by factors included in the model. The results indicate that only four of the variables were significant determinants of farmers' willingness to take insurance cover. The variables are age, literacy level, experience in farming and extension contact. While other significant variables were positively related to the

dependent variable, age was negatively related to it. The implication is that the older the farmer, the more unlikely he would take an agricultural insurance cover. This was expected because age was thought to determine the ability of a farmer to evaluate risks. To an old farmer, taking an insurance cover in itself is a risk and old people tend to be more risk averse than younger people. This is in addition to the skepticism of the farmers about the scheme. Many of them felt that the procedure of insuring their crops and livestock and obtaining their indemnity is bureaucratic and they felt that the NAIC might not pay them their indemnity in case of a disaster. This is a carry over of previous experiences with other insurance companies. Generally, the findings indicate that socio-economic and institution factors are important determinants of farmers' willingness to take agricultural insurance cover.

CONCLUSIONS AND RECOMMENDATIONS

From the foregoing, it may be concluded that the level of farmers' response to the Nigerian Agricultural Insurance Scheme in the study was very low. Though their level of awareness about the scheme was high. It is possible that the procedure of taking an insurance cover may not be encouraging for the farmer especially since they need to fill forms and cost all their intending expenditure upon which the premium is based. Most of our farmers do not want to incur any expenditure in cash since they depend on family labour for most farm operations. The farmers are usually short of cash at the beginning of the season since they are poor resource farmers.

The implication is that the Nigerian Agricultural Insurance Company (NAIC) may have made adequate effort to educate the farmers on the activities of the company but farmers are not interested. It is,

therefore, suggested that NAIC should endeavour to re-inform farmers about the scheme and re-educate them of the benefits derivable from it and also back up these with informations about previous settled claims from other areas. The company should organise training for extension agents through which information on the scheme can be transferred to farmers. This can be done in different ways, one of which is participation in the Monthly Technology Review Meetings (MTRMs) of the Agricultural Development Projects (ADPs). NAIC Zone Officers can use MTRMs to re-introduce the scheme. They can also have follow up at the Fort Nightly Trainings (FNTs) of the ADPs. Apart from this, agents of the company should also make regular visits to rural area to educate farmers and opinion leaders of the communities about the benefits of taking an agricultural insurance policy. This type of contact may enable farmers have confidence in the company.

The need to make agricultural loan available to the farmers in the area is also suggested since deduction as regards NAIC will be at source.

Although cooperatives was not a significant determinant of farmers' willingness to adopt the scheme, the use of the groups to pass information about the scheme should be seriously looked into with a view to making it a useful source of information about the scheme to farmers.

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Table 1: Distribution of Farmers According to Awareness of Benefits Derivable From Agricultural Insurance Scheme.

Awareness of Benefit of Agric. Insurance	Frequency	Percentage
Yes	93	51.7
No	87	48.3
Total	180	100

Source: Survey Data, 1995

Table 2: Distribution of Farmers According to Enterprise Insurance Coverage

Insured	No of Respondents	% of Total
Yes	0.0	0
No	180	100
Total	180	100

Source: Survey Data, 1995.

Table 3: Distribution of Farmers According to their Willingness to Insure Crops or Livestock.

Variable	No of Respondents	% of Total
Yes	105	58.3
No	75	41.7
Total	180	100

Source: Survey Data, 1995.

Table 4: Farmers' Major Sources of Information about Nigeria Agricultural Insurance Scheme (NAIS).

Sources	Frequency of Response	Percentage
Radio	36	38.7
Extension Agent	54	58.1
Neighbours and Friends	3	3.2
Total	93	100

Source : Survey Data, 1995.

Table 5: Determination of Farmers Willingness to take Agricultural Insurance Cover.

Variable	Coefficient	t-value
Age (x1)	-0.0394	-4.3259*
Experience in farming (x2)	0.0055	1.8289*
Literacy level (x3)	0.1052	2.1065*
Farm size (x4)	0.0050	0.9201 ^{NS}
Members of Cooperative (x5)	-0.1248	-0.9502 ^{NS}
Constant with Extension (x6)	0.2136	5.6325*
Constant	0.9754	
R ²	0.7128	

* Significant at 5% level

NS = Not Significant