ADOPTION OF NAIS BY THE FARMERS TO COPE UP WITH AGRICULTURAL RISKS IN THE DISTRICT OF NORTH 24 PARGANAS, WEST BENGAL: AN ANALYTICAL STUDY

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ABSTRACT

Agriculture Insurance Company of India Ltd. (AIC) is operating since 2003 under the aegis of National Agricultural Insurance Scheme (NAIS) to provide insurance coverage to the poor farmers of India against loss of crops by natural or other calamities. It is an established fact that agriculture is a highly risky business and a majority of Indian poor farmers are loanees. Farmers of West Bengal like poor farmers of other states also fight against agricultural risks appearing due to natural calamities, diseases, pests and even price fluctuations or other market uncertainties against which they seriously need to be insured. Both public and private sector companies under the control of IRDA offer agricultural insurance provision for the Indian farmers. The present study has been undertaken to evaluate the mass acceptance of NAIS under control of AIC of India among the loanee and non-loanee farmers in the District of North 24 Parganas, which represents the actual picture of how far the National Agricultural Insurance Scheme reaches the farmers of West Bengal. This study in one hand reveals whether there is any influence of farmers’ family income on their decision of taking loans for farming and on the other hand evaluates how far AIC of India is able to inform the loanee and non-loanee farmers of this district regarding the benefits of NAIS.

KEYWORDS

Agricultural Insurance, AIC, NAIS.

INTRODUCTION

Agricultural insurance stands for a special type of property insurance (General Insurance) applicable to agricultural firms to protect the farmers against financial losses in situations caused by agricultural risks and other uncertainties. It is based on the empirical concept of assuming and distributing agricultural risks where the loss incurred by few farmers is spread over and shared by many and the loss incurred in worst situations are compensated from the profitable seasons or years. As agricultural production is a risky business in India, farmers have to face several risks and uncertainties in different states including West Bengal. The risks and uncertainties come in the form of flood or drought due to irregularity of rainfall as agriculture depends on monsoon. The changing weather, pests and diseases, irregular supply of inputs and other market related factors become the causes for which the farmers definitely need the help of agricultural insurance to meet agro risks.

It is learnt that the evolution of agricultural insurance in India dates back to the 1920s and it was based on the initial concept of irregularity of rainfall approach (proposed in 1915) made by Shri J. S. Chakravarthi of Mysore State to insure the farmers of India against drought. In 1948 (The post-independence period), the Government of India appointed G. S. Priolkar as an Officer on Special Duty to study the feasibility of insurance schemes in India especially for crop and cattle insurance. The Indian Council of Agricultural Research (ICAR) was requested to prepare a draft Pilot Scheme (Singh, 2004).

In October 1965, the Government of India took first initiative to enable each state of this country to introduce crop insurance by introducing a Crop Insurance Bill and a Model Scheme of Crop Insurance as a consequence of which in 1970, an Expert Committee headed by Dr. Dharm Narain took charge to look into the matter. Since then, agricultural insurance schemes evolved through many phases like - Individual Approach Basis Insurance Scheme (1972-1978), Pilot Crop Insurance Scheme (PCIS) (1979-1984), Comprehensive Crop Insurance Scheme (CCIS) (1985-1999), Experimental Crop Insurance Scheme (ECIS) (for rabi crops 1999-2004), Pilot Scheme on Seed Crop Insurance (PSSCI) (for rabi 1999-2000) and Farm Income Insurance Scheme (FIIS) (Rabi 2003-2004 season and Kharif 2004 season) (Mohapatra and Dhaliwal, 2014).

National Agriculture Insurance Scheme (NAIS) becomes the flagship yield based crop insurance program of the Government of India discontinuing the prevailing CCIS scheme from Rabi 1999 season. On the other hand, the implementation and administration of crop insurance schemes run by General Insurance Corporation of India (GIC) was taken over by the Agriculture Insurance Company of India Ltd. (AIC) since 2003 under the guidance of National Agricultural Insurance Scheme (NAIS) to provide insurance coverage to the farmers against loss of crops by natural calamities or others. Therefore, since then, the main agricultural insurance scheme is NAIS among the offering mix of Agriculture Insurance Company of India Ltd. (the one and only public sector company of agro insurance in India). Apart from NAIS, the other present insurance schemes of AIC are National Crop Insurance Programme (NCIP), Bio-Fuel Tree/Plant Insurance, Cardamom Plant and Yield Insurance, Potato Crop Insurance, Pulp Wood Tree Insurance Policy, Rainfall Insurance Scheme for Coffee (RISC) 2011, Rubber Plantation Insurance, Varsha Bima/Rainfall Insurance and Weather Insurance (RABI).
There are nine States/Union Territories including West Bengal, which have undertaken the crop insurance schemes under the AIC.

On the other hand, there are also the private sector companies like IFFCO Tokio General Insurance Company Ltd, ICICI Lombard Insurance Company Ltd., which have different insurance schemes to protect crops and farmers’ properties in risky situations. The major schemes offered by IFFCO-Tokio General Insurance Co. Ltd are Sankat Haran Bima Yojana (2001), Varish Beema Yojana for Kharif Crops (2006-2007), Weather Insurance of wheat, mustard and potato (2006-2007), Pashudhan Bima Yojana (2009), etc. ICICI Lombard General Insurance Co. Ltd. also helps the Indian farmers by offering Weather Insurance scheme for wheat, paddy and cotton (2008).

Like other states of India, West Bengal is also significantly benefitted by NAIS scheme of Agriculture Insurance Company of India Ltd. (AIC) in the issue of fighting against agricultural risks and uncertainties taking usually the form of flood, drought, irrigation problems, diseases and pests, price fluctuations, storage and processing risks, etc. It is said that in West Bengal, agriculture provides employment to 2/3rd of the population and the official report of the Ministry of Agriculture claims that 8 percent of India’s foods are being generated by the agricultural sector of West Bengal. In West Bengal, AIC claims that it has taken significant steps to help both the loanee and non-loanee farmers by offering compulsory basis insurance benefit to the loanee farmers and on a voluntary basis insurance benefit to the non-loanee farmers.

Therefore, after discussion on the significance and benefit of NAIS scheme of Agriculture Insurance Company of India Ltd. (AIC), analysis becomes necessary to evaluate the performance of NAIS scheme of AIC in providing its benefits particularly to the poor farmers of West Bengal and in ensuring the loanee and non-loanee farmers of this state that they are properly informed about these prevailing insurance schemes, which must be beneficial in different risky situations. This study is basically directed towards evaluating the acceptance of NAIS scheme among the loanee and non-loanee farmers of the whole nation.

**Literature Update**

Review of literature on relevant aspect is of great significance to conduct a concise and compact study. Several researches have been conducted to explore the evolution of Agricultural Insurance in India, the status and prospects of NAIS in India to fight against different agricultural risks and the review as well as the appraisal of the performance of agricultural insurance schemes in some selected states of India like Punjab, Maharashtra, Andhra Pradesh, Tamilnadu, etc. except West Bengal.

Singh S. (2004) carried out a study to trace the history of crop insurance in India and reviewed both of the methodologies; parametric and nonparametric applied for calculating actuarial premium rate making. Being a former Principal Scientist of IASRI, New Delhi, he has highlighted the contribution made by the IASRI scientists and students at IASRI who have analysed the crop yield data collected from each taluk or mandal under CCIS; the feasibility of reducing the defined area from a taluk/mandal to a Gram Panchayat; the contribution of ISAS; the experience of CCIS; the implementation of the National Agricultural Insurance Scheme and human aspect of Crop Insurance.

Raju S.S. and Ramesh C. (2008) critically analysed the performance of National Agricultural Insurance Scheme (NAIS) in India and suggested some modifications to make it more effective. Through their study, they have also suggested that different insurance companies may be assigned some reasonable targets by IRDA to cover up the aggregate demand of agricultural insurance and to make a good start. It could be set as equal to the share of agriculture in the national income. Their findings show that the overall performance of Agricultural Insurance Co. of India Ltd. (AIC) of the private companies is not at all satisfactory to the farmers of the whole nation.

Pal D. and Mondal T. (2010) advocated the newly-developed concept of peril indexed insurance as an effective tool of risk management to stabilise the revenue of the farmers, which is highly dependent on Indian weather conditions. They examined the rainfall derivatives with premium as a function of adverse deviation of rainfall from the threshold and also critically analysed the traditional crop insurance schemes and the challenges faced by these schemes.

Sidhu, R. S. and Vatta, K. (2012) investigated the major agricultural risks based on three different agro-zones of Punjab, i.e. the Sub-mountainous region, the Central region and the South-western region. Through their study, they highlighted the major trends in Punjab Agriculture, associated risk factors and recommended some future course of action, especially the effective use of agro-insurance schemes.

Adivappar N. and Aditya K. S. (2014) highlighted the overall status and prospects of NAIS in India, which is considered as world’s largest crop insurance scheme. They carried out a thorough study on different categories of risks in farming and a comparative analysis among different states of India on the basis of performance made by NAIS. They appeared with an observation that there was a positive trend in major states in terms of number of farmers covered under the scheme since the inception of NAIS. They have recommended to consider Village/Gram Panchayat as the operational unit instead of Hobli/Phirka and to minimise the time used in claims settlement by simplification of the existing schemes.

Mohapatra L. and Dhaliwal R. K. (2014) significantly studied the genesis of agricultural insurance in India as well as examined how effectively various agricultural schemes are operated in the state of Punjab. They analysed the performance of AIC and the general insurance companies of private sector operating agricultural insurance schemes in Punjab. Their study highlighted that post green revolution era of Punjab State needed to address the challenges of diversification where agricultural insurance could act as a powerful tool of agricultural risk management.

Kumar, F. R. and Breshnev (2014) critically evaluated the crop insurance programme in India through the multi-peril yield-based National Agricultural Insurance Scheme (NAIS) and their study appeared with an observation that NAIS did well on equity grounds, but the coverage and indemnity payments were biased towards a few regions and crops in some select areas of Tamilnadu. Moreover, delays were observed in settlement of claims by the insurance companies.

The research highlighted the current issues on crop insurance in Cauvery Delta Region of Tamilnadu.
OBJECTIVES OF THE STUDY
This study intends to evaluate the mass acceptance of NAIS scheme among the loanee and non-loanee farmers in the district of North 24 Parganas as well as the State of West Bengal. Therefore, a primary survey has been conducted among the farmers of some select areas of this district as the representative sample of the state of West Bengal as a whole.

The set of objectives include
- To study the propensity of borrowing loans for farming by the farmers of the district of North 24 Parganas.
- To analyse whether there is any influence of farmers’ family income on their decision of taking loans for farming in several occasions.
- To understand how far the NAIS policies get acceptance among the loanee and non-loanee farmers.
- To highlight the status of awareness among the farmers regarding agricultural insurance under NAIS.

The scope of this study is enormous as there are lots of research works have been undertaken in this area, but no such study has been conducted on the evaluation of performance of different agricultural insurance companies especially AICI with the benefits of NAIS particularly in West Bengal. States of India like Punjab, Maharashtra, Andhra Pradesh, Tamilnadu get the coverage of the studies of performance appraisal of NAIS or other agro-insurance schemes, but we lack a significant study in West Bengal in this direction.

METHODOLOGY
This study is mainly aimed towards highlighting the status of market acceptance of agricultural insurance by farmers of some selected areas of the district of North 24 Parganas as the representative of the farmers of West Bengal. A primary survey was conducted by taking the feedback of 152 sample respondents/farmers (convenient method) with the help of a structured questionnaire. Out of five (5) Subdivisions (Bangaon, Barasat, Basirhat, Barrackpore and Bidhannagar) in the district of North 24 Parganas three (3) subdivisions (Bangaon, Barasat, Basirhat) have been selected as sample areas of the field survey because these three subdivisions contribute the largest production of crops for the district. Hence, most of the farmers live in these three subdivisions. Primary data had been collected through structured questionnaires filled up by total 156 respondents (convenient method) of 12 villages (Taking four villages from each of three subdivisions and 13 respondents from each such village). However, analysis has been made considering 152 questionnaires finally as 4 questionnaires have been rejected due to incomplete responses.

FARMERS TO BE COVERED UNDER NAIS SCHEME
The Basic Proposition
All farmers including sharecroppers, tenant farmers growing the notified crops in the notified areas are to be considered eligible for the coverage of NAIS.

THE SCHEME GIVES BENEFIT
On a Compulsory Basis to the Loanee Farmers
The benefits of this scheme is compulsory for all those farmers availing crop production loans or Seasonal Agricultural Operations (SAO) loans from nationalised banks, rural/grameem banks, listed financial institutions under IRDA. These farmers are said to be Loanee Farmers who must be insured under compulsory NAIS while taking loan from the bank or selective financial institutions under IRDA.

On a Voluntary Basis to the Non-Loanee Farmers
The scheme is beneficial for those farmers who are growing notified crops without taking any crop production loans or Seasonal Agricultural Operations (SAO) loans. They are the Non-Loanee Farmers who can opt for this scheme on a voluntary basis.

To make the farmers aware and well-informed regarding the schemes of NAIS, AIC of India organise awareness programmes in different rural areas.

FINDINGS AND SURVEY RESULTS
From this survey, it is found that out of 152 respondent farmers, 68 farmers belong to those families whose monthly family income is less than or equal to Rs.10,000; 56 belong to the monthly income between Rs. 10,000 to 30,000 and rest 28 belong to monthly family income of more than or equal to Rs. 30,000.

It is also found that-
Total number of loanee farmers = 72
Total number of non-loanee farmers = 80

There are several sources of taking agricultural loans, viz. nationalised suburban banks, rural/cooperative banks, private banks and individual moneylenders (Mahajan) and it is significantly found that maximum (40.81%) farmers have taken loans from these moneylenders (Mahajan). These farmers (40.81% of the total loanee farmers) are deprived...
from the agricultural insurances as they are unaware about the compulsory insurance benefit of NAIS scheme of Govt. of India. Those who have borrowed loan(s) from nationalised suburban banks (16.35%), rural/cooperative banks (30.6%) and from private banks (12.24%) get benefit of compulsory insurance benefit of NAIS scheme. Their crops get insured against all the major risks considered under the policies.

On the other hand, non-loanee farmers or the majority of the respondents (52.63%) have not borrowed any kind of loan for farming. They are almost (85%) unaware of the fact that they can also get voluntary insurance benefit under NAIS.

Influence of Farmers’ Family Income on their Decision of Taking Loan
A Chi-Square ($X^2$) Test has been applied to find out whether there is any significant influence of farmers’ family income on their decision of taking loans for the farming in different situations. For this purpose, the following hypotheses have been set:

The null hypothesis is:

H0: There is no significant influence of farmers’ family income on their decision of taking loans for farming.

The alternative hypothesis is:

H1: There is significant influence of farmers’ family income on their decision of taking loans for farming.

Here, we can see as the calculated value or Chi-Square Test Statistic (15.4326) is greater than the table value or the critical value (5.9915) at 5% level of significance. Therefore, H0 cannot be accepted. So, after rejection of null hypothesis, it can be said that there must be a significant influence of farmers’ family income on their decision of taking loans for farming.

CONCLUSION OF THE STUDY
It has been revealed from this study that farmers have to take loans depending on their income constraints. That is why simultaneously they have to take risks in farming. They may fail to pay their loans if their crops and properties are not properly insured.
Here, the noticeable fact is that till now the maximum (40.81%) loanee farmers have taken loans from the moneylenders (Mahajan) in the rural areas of the district of North 24 Parganas. Though AIC of India have always tried a lot to promote the compulsory scheme of NAIS with the farming loan to the poor farmers, still the benefit is far behind to reach the rural poor farmers. It may be due to lack of proper distribution channel or bank branches or financial intermediaries. Therefore, it is a consequence that the majority of the loanee farmers are being deprived from receiving the compulsory agricultural insurances benefits of NAIS scheme of AIC of India for the loanee farmers.

Even, those farmers who have not taken any kind of loan for farming are mostly (85%) unaware of the fact that they are also eligible to take the voluntary crop and other agro-insurance benefits of NAIS. They are not borrowing loan, but they are also completely eligible to access the benefits of NAIS scheme of AIC of India.

Based on the findings emerging from this study, it can be concluded that mass acceptance of agricultural insurance is still not in a satisfactory level as the larger part of the farmers of West Bengal are still unaware about how agricultural insurance schemes might be helpful in their agricultural risk management.

REFERENCES