

CROP INSURANCE – TRIBULATIONS AND PROSPECTS OF FARMERS WITH REFERENCE TO NUZVID, KRISHNA DISTRICT

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ABSTRACT

Agriculture is the backbone of our Indian economy. Agricultural development is a precondition of our national prosperity. It is the main source of earning livelihood of the people. Nearly two-thirds of its population depends directly on agriculture. Agriculture provides direct employment to 70 percent of working people in the country. It is the main stay of India's economy. So, it is very important to study about various aspects of agriculture. The present paper discusses the outcomes of the study in the area of crop insurance. Firstly it measures the awareness level and source of awareness, secondly examines the farmers' perception, finally identify the farmers willingness in paying for crop insurance. The study was conducted in Nuzvid, Krishna District, Andhra Pradesh and 140 convenient respondents were chosen and been carried out in June and July, 2013. Most of the farmers were not willing to pay for crop insurance because of instable income, premium rate, no or low compensation, problems with distribution channel and lack of financial knowledge.

KEY WORDS: Awareness Farmers, Insurance, perception.

INTRODUCTION

India is an agricultural country. The Indian economy is basically agrarian. In spite of economic development and industrialization, agriculture is the backbone of the Indian economy. As Mahatma Gandhi said, "India lives in villages and agriculture is the soul of Indian economy". Nearly two-thirds of its population depends directly on agriculture for its livelihood. Agriculture is the main stay of India's economy. It contributes about 26 percent of the gross domestic product. Agriculture meets food requirements of the people and produces several raw materials for industries.

Agriculture plays a vital role in the Indian economy. Over 70 per cent of the rural households depend on agriculture as their principal means of livelihood. Agriculture along with fisheries and forestry accounts for one-third of the nation's Gross Domestic Product (GDP) and is its single largest contributor. Agricultural exports constitute a fifth of the total exports of the country. In view of the predominant position of the Agricultural Sector, collection and maintenance of Agricultural Statistics assume great importance.

Role of agriculture in Indian economy:

Agriculture is the main sector of Indian economy which is amply powered by the following points:-

1. **Share in National Income:** The contribution from agriculture has been continuously falling from 55.1% in 1950-51 to 37.6% in 1981-82 & further to 18.5% in 2006-07.

But agriculture still continues to be the main sector because it provides livelihood to a majority of the people.

2. **Largest Employment Providing Sector:** in 1951, 69.5% of the working population was engaged in agriculture. This percentage fell to 66.9% in 1991 & to 56.7% in 2001. However, with rapid increase in population the absolute number of people engaged in agriculture has become exceedingly large.
3. **Provision of Food Surplus to the Expanding Population:** Because of the heavy pressure of population in labor-surplus economies like India & its rapid increase the demand for food increases at a fast rate. Therefore, unless agriculture is able to continuously increase its surplus of food-grains, a crisis is likely to emerge. Experts foresee that by the end of 11th five year plan (i.e., 2011-2012), the demand for food-grains is expected to increase to 280.6 million tons. Meeting this demand would require 2% growth per annum. The challenge facing the country is clear as during the last 10 years the food-grains have been growing at a meager 0.48%.
4. **Contribution to Capital formation:** There is a general agreement on the importance of Capital Formation in economic development. Unless the rate of Capital Formation increases to a sufficient high degree, economic development cannot be achieved. Agriculture can play a big role in pushing the Capital Formation in India. Rural sector can transfer labor & capital to the industrial sector which can be effectively used to increase the productivity in the latter.
5. **Providing Raw Material to industries:** Agriculture provides raw materials to various industries of national importance. Sugar industry, Jute industry, Cotton textile industry, Vanaspati industry are examples of some such industries which depend on agriculture for their development.
6. **Market for Industrial Products:** Since more than two-thirds of the population of India lives in rural areas, increased rural purchasing power is a valuable stimulus to industrial development.

Importance in International Trade: Agriculture constitutes about 75% of the total exports of the country. Such is the importance of agriculture as far as earnings of foreign exchange are concerned.

FEATURES OF INDIAN AGRICULTURE

The main features of Indian agriculture observed after independence are as follows:

1. Large areas have been brought under irrigation.
2. Use of fertilizers and pesticides has been increased.
3. Large area has been brought under high yielding variety of seeds which brings green revolution in India.
4. Although modern techniques are adopted still animals play a significant role in various agricultural activities.
5. Major part of the agriculture depends mainly on monsoon rain.
6. Food crops are the major parts of production.
7. Means of transport and facilities for storing food are inadequate and roads are un-metalled.

Agriculture is an important economic activity for the people in Krishna region. The soil and climatic conditions of Krishna district allows multiple cropping pattern and high cropping intensity, but paddy is being the predominant crop. Agriculture in Krishna region is shrinking in terms of arable land and crop net production due to increasing demand for land from other

economic sectors, insufficient labour, frequently affected by natural calamities, and the increasing cost of agricultural inputs such as seeds, fertilizers, pesticide and low market price. It is here that crop insurance plays a vital role in anchoring a stable growth of agricultural sector. Crop insurance is an insurance arrangement aiming at mitigating the financial losses suffered by the farmers due to damage and destruction of their crops as a result of various production risks (A.I.C of India). In this view of this, the need for protecting farmers from the various risks and hazards was recognized by the government and they have to introduce various crop insurance schemes for the welfare of the farmers. The crop insurance scheme is delivered as compulsory along with crop loan from the financial institutions like primary agricultural banks, regional rural banks and commercial banks and voluntary basis for non crop loaners. But there is need to study how farmers perceive crop insurance, are they fully aware about it and whether the non crop loaners are willing to join and pay for crop insurance schemes. The present study examines the farmers' perception, secondly measures the awareness level and source of awareness, finally identify the farmers willingness in paying for crop insurance in Krishna district.

REVIEW OF LITERATURE

Insurance is a contract made for financial arrangement between two parties when few suffered losses are met from the funds accumulated through small contributions made by many who are exposed to similar risks.

The farmer is likely to allocate resources in profit maximizing way if he is sure that he will be compensated when his income is catastrophically low for reasons beyond his control. A farmer may grow more profitable crops even though they are risky. Similarly, farmer may adopt improved but uncertain technology when he is assured of compensation in case of failure (Hazell 1992). This will increase value added from agriculture, and income of the farm family. Bhende (2005) found that income of the farm households from semi-arid tropics engaged predominantly in rain-fed farming was positively associated with the level of risk. Hence, the availability of formal instrument for diffusion of risk like crop insurance will facilitate farmers to adopt risky but remunerative technology and farm activities, resulting in increased income.

It is observed that insured households invest more on agricultural inputs leading to higher output and income per unit of land. Interestingly, percentage increase in output and income is more for small farms. Based on 1991 data, CCIS was found to contribute 23, 15, and 29 per cent increase in income of insured farmers in Gujarat, Orissa and Tamil Nadu, respectively (Mishra 1996)

Boyd and others (2011) collected data from a survey questionnaire given to farmers in Inner Mongolia, China, in 2007. It includes two county areas, with the first area covering the Dalate region, and the second area covering the Wushen region. The survey includes 220 farmers, and main groups of variables used for this study include knowledge and behavioral information, risk level, and crop insurance premium level, main information sources for crop insurance, role of farmer in the village, and Off- farm income. They conclude that these variables are found to influence purchase of insurance according to the explanatory model developed using probit regression.

Suresh Kumar and others (2011) conducted a study in Tamil Nadu by interviewing 600 farmers spread over 27 out of 32 districts of the state. For maximizing information base, those farmers were selected in the sample, who were covered under the on-going Cost of Cultivation for Principal Crops scheme of the Government of India. The sampled farmers were from the categories of marginal to large farms cultivating all important crops in one or two seasons under various agro- ecological situations, such as tank irrigation, groundwater

irrigation, canal irrigation and rain fed farming. Data were collected during January – March, 2009.

The Probit and Tobit models were employed to study awareness about crop insurance schemes and premium paid for crop insurance. The study revealed that social participation and Education level enhance awareness about innovative products in crop insurance. It has been found that the factors given under influence significantly and positively the adoption of insurance: gross cropped area, income other than agricultural sources, presence of risk in the farming, number of workers in the farm family, satisfaction with the premium rate and affordability of the insurance premium amount. The study brought out the need for appropriate stakeholders interface and capability building initiatives to enhance adoption of crop insurance scheme and its reach to the target group.

OBJECTIVES OF THE STUDY:

1. To portray the significance and role of agriculture in Indian economy.
2. To evaluate the farmer's perception and awareness towards crop insurance scheme.
3. To offer suggestions to improve awareness and farmers willingness in joining and paying for crop insurance.

RESEARCH METHODOLOGY

The data has been collected from the farmers of Nuzvid, Krishna district, by administering the self structured questionnaire to them. The samples consist of marginal, small and large farmers. 140 convenient respondents were chosen by the following criteria. The village consists of nearly 300-400 households. The average households have been 350. Normally 35 to 45% of households in villages belong to farming community. From 350 households 40% of farm households i.e. 140 were chose as sample size in this study. The study has been carried in June and July, 2013. The analysis of data collected has been carried out using percentage analysis and the hypotheses were tested using chi-square test.

DATA ANALYSIS AND INTERPRETATION

Profile of the sample farmers

The significant proportion (58.5) of sample farmers were above the age of 45 and the remaining were below 45 years of age. Maximum respondents 67% had their school education, 16% of respondents had their college education and 17% of respondents were illiterate. In the study area the farmers has less participation in any groups. Nearly 66% of farmers were not in any NGOs or SHGs. Only 34 % of respondents were member in SHGs. Majority of respondents 86% in study owns their own land. As far as income concerned a major percentage 68% of respondents have their annual income from their farm was below 2 lakhs. This implies the respondents were mostly small and marginal level farmers.

TABLE -1 PROJECTING THE REASONS FOR CROP LOSS IN STUDY AREA

S.No	Reasons	F	%
1	Cyclones, drought, floods, fire and other disasters	76	54.2
2	Variation of rainfall	30	21.4
3	Crop diseases	18	13
4	Poor fertility of land		
4	Non availability of inputs (seeds, fertilizers and pesticides)	16	11.4
5	Irrigation problems	0	0
6	Power problems	0	0
7	Spurious seeds	0	0
8	Others	0	0

INTERPRETATION:

The farmers were asked about major risks which affects their crop production. In the study area natural calamities like cyclone, storm and variation in rainfall is the major reason 75% for crop losses. Crop diseases place 13% and non availability of agricultural inputs places 14% in crop production losses.

TABLE -2 SHOWS RISK COPING MECHANISM

S.No	Mechanism	F	%
1	Sale of fixed asserts	2	1.4
2	Savings	30	21.4
3	bank loan	46	32.8
4	borrowings from neighbors or friends	58	41.4
4	government subsidiary	2	1.4
5	agriculture insurance	4	2.8
6	Others (jewel loan)	24	17

INTERPRETATION:

Traditional and informal risk managing mechanisms like borrowings from friends, neighbors and relatives and through jewel loan was the major risk management strategy used by farmers in study area to mitigate crop production risks, followed by bank loan. Crop insurance plays a minor work as risk management instruments in study area.

TABLE -3 SHOWS THE AWARENESS AND SOURCE OF AWARENESS

S.No	Source	F	%	
1.	Awareness	Not aware	46	33
2.		Aware and subscribed	56	40
3.		Aware but not subscribed	38	27
4.	Source of information	Fellow farmers	26	27.5
5.		Banks / financial institution	62	66
6.		News paper/ TV/ radio	6	6.5
7.		Agri dept. officials	0	0
8.		NGOs or any other agency	0	0

INTERPRETATION:

The crop insurance is not a new concept to farmers but its reach and subscription of it was low in study area. From this study 40% of respondents were both aware and subscribed crop insurance and 27% aware but not subscribed and remaining respondents were not aware about crop insurance schemes. The farmers subscribed crop insurance along with crop credit loan. Bank acts as a nodal agency in delivering crop insurance and being the main source of providing information on crop insurance to farmers.

TABLE -4 SHOWS THE PERCEPTION OF FARMERS TOWARDS CROP INSURANCE SCHEME

Particulars		F	%
Only for Large farmers		49	52.2
Only for small farmers		8	8.5
Only for marginal farmers		5	5.3
For all farmers		18	19.2
For none		0	0
Can't say		14	14.8
Extent of sharing of risk by crop insurance	None	58	61.8
	0-50%	18	19.1
	51-100%	3	3.1
	Can't say	15	16

INTERPRETATION:

The farmers who were aware about crop insurance were asked their perception about crop insurance. Most of the respondents felt that crop insurance was made only for large farm size farmers or high income farmers. Only few farmers 19% felt that it suits for all farmers. Because of high premium rate and low compensation paid small and marginal farmers felt that crop insurance is not suits for them. 62 % of respondents perceive that current form of crop insurance does not a risk management instrument by sharing financial losses. 61.8 % of respondents show their negative sign towards risk sharing of crop insurance and few farmers agrees that crop insurance bare the 0-50% of risks.

TABLE -5 SHOWS THE WILLINGNESS TO JOIN AND PAY FOR CROP INSURANCE

Particulars	F	%
Ready to buy	31	37
Not ready to buy	19	23
No response	7	8
Still need some time	27	32
Conditions	F	%
Reduction in premium rate or Subsidiary increase from 50% to 75%	36	68
Compensation time within 3-6months	45	85
Full compensation for loss amount	45	85
Full information given by nodal agency	12	23
Insurance unit size will be small to individual farms	38	72

INTERPRETATION:

The non policy holders 60% of crop insurance was enquired about their willingness in join and pay for crop insurance. By explaining the need for crop insurance in crop production 37% of respondents were ready to buy crop insurance and few respondents were ready to buy if certain conditions were provided. This was explained in the below tables.

HYPOTHESIS:

Ho: There is no significant relationship with education level of farmers and willing to join and pay for crop insurance program.

The chi square analysis was made to find out the relationship between the educational level of farmers and their willingness in joining and pay for crop insurance.

TABLE -6 SHOWS THE OUTCOME OF CHI-SQUARE ANALYSIS

O	E	(O-E)	(O-E) ² /E
24	33.9	-9.9	2.891
116	106	10	0.943
31	21	10	4.761
56	65.9	-9.9	1.487
Total			10.082

Chi square (X^2) = $\sum (O-E)^2 / E = 10.082$

The degrees of freedom = $(c-1) (r-1) = (2-1) (2-1) = 1$

The tabular value of X^2 (degrees of freedom = 1) is 3.841 and the value of X^2 that from calculation is 10.082. Hence the tabulated value is less than the calculated value, so the null hypothesis is rejected and concluded that there is relationship between education level of farmers and willingness in join and pay for crop insurance.

Suggestions:

The product design and choosing appropriate distribution channel are key functions to make crop insurance more effective reach among the farmers.

Educating farmer

The crop insurance was delivered along with crop credit loan through banks. The bank officials are not the right persons to make full awareness, explain advantages and disadvantages of crop insurance to farmers. Simply they work for their small commission so the service providers have to play their role in educating farmers about their product. In study area the social participation was less, so that the government of Andhra Pradesh through local agricultural department and primary agricultural credit society to form some crop cultivators association or farmers association. The grouping of farmers in some form of group will increase their financial knowledge.

The service provider should be actively engaged in public awareness and capacity building campaign for farmers through bank personnel, Agricultural department and village administrative offices. Even though these types of campaign produce low results, but it helps the farmers to insight the advantages and disadvantages of crop insurance to make its reach effective.

Improving farmers willingness in join and pay for crop insurance

From then study findings farmers perceive that crop insurance suits only for farmers with large farm size and high income. So the service providers has to look on to new product which offer effective focus on financing economic losses in affordable premium to small and

marginal farmers. The service providers follow area approach in loss assessment in which farmers perceive it to change as individual basis.

The farmers were sensitive to premium rate and returns in time. The service providers have to concentrate on both. The company should provide compensation in time. For that the loss assessment was major factor which delays the claim in time. A person will be appointed by the service provider for every district may take over this function so that loss assessment carried out in every district at the same time and it shortens the returns in time. It will greatly help the farmers to recover from bad agricultural years. This will influence other non subscriber to subscribe crop insurance.

Scope for further research

The application area- crop insurance requires more fields based micro studies to enhance understanding of the issues in a more contextual way. There are issues like product innovation for meeting crop insurance needs, distribution innovations to have wider and easy distribution.

CONCLUSION

Importance of agriculture sector in Indian economy cannot be undermined. The sector along with its significant achievements in form of Green, Blue and White revolution has developed certain stress points over a period. From the above analysis it is clear that the natural disasters like cyclone, storm and variation in rainfall are the major risks in the study area. In the theoretical frame work crop insurance stabilizes the farmer's income during the losses in crop production. But in real picture it doesn't act as risk management instrument during the loss in farming. The farmers perceive that the crop insurance is mainly suits for large farm size farmers and its extent in risk sharing was very low. They also considered that the premium rate is not affordable by small and marginal farmers. Bank officials place a major role in making awareness among farmers but they are not suits to explain the real terms and condition of crop insurance among farmers. So the service providers have to look on the product innovations and appropriate distribution channel to make crop insurance reach more effectively.

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