



## A STUDY ON FARMERS PREFERENCE TOWARDS CROP INSURANCE

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### Abstract:

Crop insurance is necessary for the farmers to protect them against financial issues. The study aims to identify the preference of the farmers towards crop insurance in Udumalpet Taluk. The study was based on questionnaire with a sample of 100 respondents. The findings were analyzed using simple percentage analysis, chi-square test and cross tabulation. Findings reveal that educational qualification and area of land owned by the employer have significant association with farmers level of preference towards crop insurance.

**Key Words:** Agriculture, Crop insurance, Farmers, Preference & Financial risk

### Introduction:

Farmers face floods, drought, pests, disease, and a plethora of other natural disasters. The weather is their greatest adversary, something that can never be controlled by man. Crop insurance is a risk management tool that farmers can use in today's agricultural world. Crop Insurance is purchased by agricultural producers, including farmers, ranchers and others to protect themselves either the loss of their crops due to natural disasters, such as hail, drought and floods or the loss of revenue due to declines in the prices of agricultural commodities. The two general categories of crop insurance are called crop-yield insurance and crop-revenue insurance.

### History of Crop Insurance:

The government of India started offering widespread crop in insurance in 1985, with the Comprehensive Crop Insurance Scheme. The CCIS has been replaced by the National Agriculture Insurance Scheme. The NAIS is considered to be an improvement over the CCIS, but it has simply replaced one flawed scheme with another slightly less flawed one. Government crop insurance has proved to be a failure worldwide, but India seems to have ignored both its own failure and the failure of other countries. The main flaws of the NAIS are the goal of financial viability, its mandatory nature, its failure to address adverse selection, arbitrary premiums, and the area approach. Internationally, private crop insurance is not highly developed but varied successful private programs do exist. Even if India withdrew from crop insurance schemes, it could still support farmers through an income guarantee or investment in infrastructure.

The government's most current crop insurance scheme, the National Agriculture Insurance Scheme, has only been implemented since the Rabi season of 1999-2000. Within five years the NAIS is supposed to become financially sustainable, charging farmers premiums based on actuarial rates and administrative costs. A data based analysis of the NAIS is not possible, as data for only two seasons exists. However, shortcomings of previous crop insurance schemes, general trends of agricultural insurance in other countries, and inherent theoretical flaws in the NAIS all point towards disaster.

### Types of Schemes:

- ✓ **Pilot Crop Insurance Scheme: (PCIS) (1979-1980)** General Insurance Corporation in collaboration with the state government introduced this scheme in 26 areas of Gujarat, 23 areas in West Bengal and 17 areas in Tamil Nadu. Subsequently it was extended to other states. The scheme covered Cereals, Millets, Oilseeds, Cotton, Potato, Gram and Barley. The scheme covered 6.27 lakh farmers who paid premium worth Rs. 195.01 lakhs. The claims paid Amounted to Rs. 155.68 lakhs with claim premium ratio of 0.80.
- ✓ **Comprehensive Crop Insurance Scheme: (CCIS) (1985-1999)** Comprehensive crop insurance scheme was an extension of PCIS. It was made compulsory for loanee farmers and was implemented by GIC. The premium rates were 2 percent of the sum insured for cereals and millets, and 1 percent for pulses and oilseeds. The union government and the state government shared premium and claims in the ratio of 2:1. Small and marginal farmers received 50% premium subsidy. The limit of sum insured was pegged at Rs. 10,000/- per farmer per hectare. The participation by states was on voluntary basis. The Government of India under the scheme was reimbursing 50 percent of administrative expenses to GIC.
- ✓ **Experimental Crop Insurance Scheme: (ECIS) (RABI 1997-1998)** This scheme was introduced on an experimental basis to additionally cover non-loanee small / marginal farmers in 14 districts of five States. It entailed 100 percent premium subsidy for small / marginal farmers. The scheme covered 4.55 lakh farmers who paid Rs. 2.84 crore as premium and collected claims worth Rs. 37.80crore. This resulted in a fairly high claim premium ratio of 13.31.

- ✓ **Farm Income Insurance Scheme: (FIIS) (2003-2004)** To take care of variability in income arising out of fluctuations in the yield and market price, the government introduced a pilot project, viz. Farm Income Insurance Scheme (FIIS) during Rabi 2003-04 seasons. The objective of the scheme was not only to protect the income of the farmer, but also to reduce the government expenditure on procurement at Minimum Support Price (MSP). The other main objectives were to encourage crop diversification and also to give fillip to private trade, etc.
- ✓ **National Agricultural Insurance Scheme (NAIS):** The National Agricultural Insurance Scheme (NAIS) was initiated in the year 1999-00 by redesigning an existing insurance scheme called the Comprehensive Crop Insurance Scheme of India (CCIS), which operated in the country since 1985. The NAIS provides insurance cover for yield losses of food crops, oilseeds and annual commercial/horticultural crops due to natural calamities, pests and diseases. For Food crops and oilseeds: ranges from 1.5 to 3.5 per cent of SI or actuarial rates, whichever is less Annual Commercial and horticultural crops: actuarial rates Varies depending on the shortfall of actual yield from the threshold yield in the unit area of insurance and the sum insured by the farmers.
- ✓ **Weather Based Crop Insurance Scheme (WBCIS):** The Weather Based Crop Insurance Scheme (WBCIS) was introduced by the Government of India in 2007-08 on a pilot basis in selected areas of a few States. The introduction of WBCIS was based on the fact that a similar scheme piloted by the Agriculture Insurance Company of India (AIC) since 2004 was argued to have distinct advantages over NAIS. WBCIS is based on deviation of weather parameters (such as rainfall, humidity, frost and temperature) from the desired value in a period in the insurance unit. In 2009-10, the scheme covered about 30 crops in 13 States during Kharif and 11 States during the Rabi season. In areas and crops where WBCIS is being implemented, NAIS is not available to farmers. Also, as in NAIS, for areas and crops for which the scheme is implemented, participation is compulsory for loanee farmers and is optional for others. For Food crops and oilseeds: ranges from 1.5 to 3.5 per cent of SI or actuarial rates (capped at 10 per cent for kharif and 8 per cent for Rabi), whichever is less Annual Commercial and horticultural crops: ranges from 2 to 6 per cent of SI (actuarial rates capped at 12 per cent) Varies depending on the difference between the actual value and the trigger value of the weather parameter and the cost of inputs per unit area declared by AIC

#### **Need of the Study:**

- ✓ To know the present scenario of the crop insurance.
- ✓ To know the preference of Crop Insurance among the farmers.
- ✓ To find out the issues that affects farmers in the inbound and outbound process of the finance.
- ✓ This study will help the insurance company to customize the service according to the farmers need.
- ✓ This study will also help the insurance company to understand the expectation and experience of the existing policy holders.

#### **Reviews of Literature:**

J. Sunder and Lalitha Ramakrishnan (2015), reveals the extent of preference towards purchase benefits and satisfaction level towards crop insurance. A total of 360 farmers from Kunichampet and Mannadipet in Puducherry district are selected for this study. The study has been made by collecting the response of farmers through structured questionnaire and they are analysed using simple percentage and Anova. The study findings revealed that there were constraints like less benefits and dissatisfaction towards claim settlement of crop insurance. Steps are necessary from Government and insurance delivery agents to promote insurance to counter problems like low benefits and dissatisfaction

D. Suresh Kumar, K.Palanisami, C.R. Ranganathan and R. Venkatram (2010), revealed that the extent of preference towards crop insurance as a tool for risk management in Tamilnadu. The study was taken up with a view to critically examine how the farmers perceive about the risk mitigation measures provided by the government and about their preference. The study is conducted throughout the state of Tamil Nadu by interviewing 600 farmers spreading over 27 out of 32 districts of the state. The structured questionnaire and they analysed using Garret's Ranking Technique and Crop Diversification Ind3ices. Uncertainty faced by individual farmers is transferred to the insurer through their participation in large numbers, for which benefit, the insured farmers pay a risk premium. From the analysis that encouraging the social participation will increase the preference of the farmers.

S. S. Raju and Ramesh Chand (2008), reveals the extent of preference towards agricultural insurance in India problems and prospects. The study was taken in New Delhi; they got respondents through the farmers and officials of the AIC, agricultural department, bankers, academicians and other representatives in New Delhi as well as Andhra Pradesh. To examine the performance of the existing and earlier national agricultural insurance schemes implemented in India and to discuss the problems and prospects of agriculture insurance in the country. Instability index (Sample Selection) and it is based on an analysis of primary and secondary data. The Primary data was collected from 150 farmers in district Vizianagaram and West Godavari district. With the improvement in governance, it is feasible to effectively operate and improve upon the performance of various programmes

including agriculture insurance. National Centre for Agricultural Economics and Policy Research (Indian Council of Agricultural Research) New Delhi.

**Objectives of the Study:**

- ✓ To identify the factors influencing the farmers level of preference towards crop insurance.
- ✓ To offer suggestions to increase farmers level of preference towards crop insurance.

**Hypothesis:**

- ✓ There is no significant association between gender and preference.
- ✓ There is no significant association between age and preference.
- ✓ There is no significant association between educational qualification and preference.
- ✓ There is no significant association between monthly income and preference.
- ✓ There is no significant association between type of family and preference.
- ✓ There is no significant association between ownership and preference.
- ✓ There is no significant association between nature of land and preference.
- ✓ There is no significant association between area of land and preference.

**Limitations:**

- ✓ The result of the study is based upon the views expressed by the farmers of Udumalpet Taluk.
- ✓ The statistical tools used to analyse the data have their own limitations.
- ✓ All the limitations of primary data are applicable to this study.

**Research Methodology:**

**Area of the Study:** The research study was done in Udumalpet Taluk.

**Nature and Source of Data:** The study is based on questionnaire method; primary data has been collected from various farmers in Udumalpet and the secondary data have been collected from related journals, Magazines and textbooks.

**Statistical Tools Used for the Study:**

- ✓ Simple percentage analysis
- ✓ Chi-Square analysis
- ✓ Cross Tabulation.

**Sampling Used:** 100 farmers were selected by convenience sampling method.

**Analysis and Interpretation:**

- ✓ Simple percentage analysis

Table 1: Demographic profile of the Respondents

Factors	No of Respondents n=100	Percentage
<b>Gender</b>		
Male	60	60
Female	40	40
<b>Age(years)</b>		
Up to 25	24	24
26 to 50	44	44
Above 50	32	32
<b>Educational qualification</b>		
Up to SSLC	46	46
HSC	30	30
Above UG Degree	24	24
<b>Monthly Income</b>		
Up to Rs. 10000	42	42
Above Rs.10000	58	58
<b>Type of Family</b>		
Joint Family	58	58
Nuclear family	42	42
<b>Ownership</b>		
Owned	68	68
Leased	32	32
<b>Nature of Land</b>		
Wet Land	64	64
Dry Land	36	36
<b>Area of Land</b>		
Below 5 Acres	66	66
Above 5 Acres	34	34

**Inference:** Table No.1 describes the demographic profile of Crop Insurance towards farmers taken for the study. Out of 100 farmers who were taken for the study: it has been identified that most (60%) of the farmers are male, (44%) whose age group is under 26 to 50, most (46) of the farmers are educated up to SSLC, the monthly income of (58%) farmers is above Rs.10, 000, (58%) farmers belong to joint family, (68%) farmer s have an own land, (64%) farmers is in wet land and (66%) farmers have acres of below 5 acres.

Table 2: Source of knowledge about Crop Insurance

Source	Number of Respondents	Percentage
Friends	22	22
Relatives	34	34
Media	20	20
Others	24	24
<b>Total</b>	<b>100</b>	<b>100</b>

**Inference:** The above table shows that, out of 100 numbers of respondents 22% farmers came to know about this crop insurance through Friends, 34% through Relatives, 20% through Media, 24% through others.

Table 3: Level of Preference towards Crop Insurance

Source	Number of Respondents	Percentage
Low	38	38
Medium	50	50
High	12	12
<b>Total</b>	<b>100</b>	<b>100</b>

**Inference:** The above table shows that, out of 100 respondents, level of satisfaction is found to be low with regard to 38% farmers, in case of 50% farmers level of satisfaction is medium and 12% farmers are highly satisfied towards Crop Insurance.

**Chi-Square Test:**

Chi-Square, symbolically written as  $\chi^2$  is a a non-parametric test, “It can be used to determine if categorical data shows dependency or whether the two classifications are independent it can also be used to make comparison between theoretical population and actual data when categories are used. It is defined as:

$$\chi^2 = E [(O - E)^2 / E]$$

Where O refers to the observed frequencies and E refers to the expected frequencies.

Table 4: Relationship between the Demographic Profile and Level of Preference

	$\chi^2$ Value	Table Value	Remarks
Gender	0.89	5.991	NS
Age	2.856	9.488	NS
Educational Qualification	23.89	9.488	S
Monthly Income	0.425	5.991	NS
Type of family	0.445	5.991	NS
Ownership	1.622	5.991	NS
Nature of Land	4.033	5.991	NS
Area of Land	12.408	5.991	S

Table 4 depicts the relationship between selected demographic variables and It is clear that, the calculated Chi-square value is less than table value at five percent level there does not exists any significant association between gender, age, monthly income, type of family, ownership and nature of land. Thus the null hypothesis is accepted. The calculated Chi-square value is greater than the table value at five percent level, there exists a significant association between educational qualification and area of land. Thus the null hypothesis is rejected.

**Cross Tabulation:**

Table 5: Relationship between the Demographic Profile and Level of Preference

	Particulars	Level of Preference			Total
		Low	Medium	High	
Gender	Male	24 (40%)	28 (47%)	8 (13%)	60 (100)
	Female	14 (35%)	12 (30%)	14 (35%)	40 (100)
Age	Up to 25 years	14 (58.3%)	8 (33.3%)	2 (8.3%)	24 (100)
	26 Years to 50 years	18 (41%)	20 (45%)	6 (14%)	44 (100)
	Above 50 years	12 (38%)	16 (50%)	4 (12%)	32 (100)

<b>Educational Qualification</b>	Up to SSLC	22 (48%)	18 (39%)	6 (13%)	46 (100)
	HSC	16 (53%)	14 (47%)	0 (0)	30 (100)
	Above UG Degree	3 (12.5%)	18 (75%)	3 (12.5%)	24 (100)
<b>Monthly Income</b>	Up to Rs 10000	16 (38%)	20 (48%)	6 (14%)	42 (100)
	Above Rs 10000	22 (38%)	30 (52%)	6 (10%)	58 (100)
<b>Type of family</b>	Joint family	24 (41%)	28 (48%)	6 (10%)	58 (100)
	Nuclear family	16 (38%)	20 (48%)	6 (14%)	42 (100)
<b>Ownership</b>	Owned	24 (35%)	36 (53%)	8 (12%)	68 (100)
	Leased	10 (31%)	16 (50%)	6 (19%)	32 (100)
<b>Nature of Land</b>	Wet Land	20 (31%)	34 (53%)	10 (16%)	64 (100)
	Dry Land	18 (50%)	16 (44%)	2 (6%)	36 (100)
<b>Area of Land</b>	Below 5 Acres	30 (50%)	28 (47%)	2 (3%)	60 (100)
	Above 5 Acres	10 (25%)	20 (50%)	10 (25%)	40 (100)

From the above table it revealed that male farmers have high level of preference towards crop insurance, while the farmers whose age is above 50 years have high level of preference, farmers whose monthly income is above Rs10,000 have high level of preference, both joint and nuclear family members have high level of preference, the farmers who have their own land have high level of preference, wet land farmers have high level of preference, the farmers who have above 5 acres have high level of preference towards crop insurance.

**Suggestions:**

- ✓ The government should arrange for some meetings to popularize their crop insurance among the farmers.
- ✓ Organize special periodical meeting and seminars for farmers.
- ✓ Enhance the advertisement about crop insurance through local channels, news papers and magazines and like.
- ✓ Placing the flex boards containing features of crop insurance policies offered at prominent areas.
- ✓ The terms and conditions of the crop insurance policies should be completely transparent to the farmers.
- ✓ Agents and officers may frequently contact the policy holders and educate the features of the policies offered in crop insurance.

**Conclusion:**

Agriculture in India is highly susceptible to risks like droughts and floods. It is necessary to protect formers from natural calamities and ensure their credit eligibility for the next season. For this purpose, the government of India introduced many agriculture crop insurance schemes throughout India. In this context, insurance companies are playing a major role to help the farmers. To encourage the farmers the insurance company should understand the needs of the farmers, but understanding farmers is complex, as it is related to psychology of farmers and also depends on various factors, which have a direct bearing on climatic changes. The study concludes that farmers play an important role in crop insurance, once the farmers are satisfied they will bring more wealth to the nation.

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