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Socio-economic factors affecting the crop insurance scheme in Haryana – A sociological analysis

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Abstract

Agriculture forms the backbone of our socio-economic system and the nation is indebted to the farmers. Agriculture in India is subject to variety of risks arising from rainfall aberrations, temperature fluctuations, hailstorms, cyclones, floods, and climate change. These risks are exacerbated by price fluctuation, weak rural infrastructure, imperfect markets and lack of financial services including limited span and design of risk mitigation instruments such as credit and insurance. This paper evaluates the crop insurance scheme that existed in Haryana state. The study was carried out in two districts of Haryana i. e. Karnal and Kurukshetra on 80 adopters and 80 non-adopters during 2018. It was found from the field of the study that total premium amount of Rs. 1,46,589/- paid by farmers to the companies through various banks, while Rs. 1,94,374/- was the actual amount that to be paid. Factors like caste, education, occupation, land holding, types of family, income, social participation, mass media exposure and socio-economic status of the respondents were found significantly associated with level of adoption of crop insurance scheme. Awareness, lack of premium paying capacity, low co-operation from bank employee were the main reasons for non-adoption of crop insurance scheme. It was also suggested that Efforts are needed to make more aware about crop insurance scheme and knowledge should be imparted to them through trainings.

Keywords: claimed amount, crop insurance scheme, socio-economic factors, causes of adoption etc.

Introduction

Agriculture is the backbone of the Indian economy, providing livelihood to a large segment of our population. India has been traditionally vulnerable to natural disasters on account of its unique geo climatic conditions. Flood, drought, cyclone, earthquake, and landslide have been continuous phenomenon in the country. Food and Agriculture Organisation estimates that feeding the world population will require a 70% increase in total agriculture productions. At the same time climatic variations threatens production stability and productivity. The Economic Survey 2017 states the growth rate for the agriculture and related sectors is estimated to be 4.1 per cent for 2017. The production of Kharif food-grains during 2017 is estimated at 135.0 million tonnes compared to 124.1 million tonnes in 2016. World Health Organisation estimates that 9,00,000 people worldwide die from farmer's suicide every year and over 60 million people die from chronic disease. The National Crime Records Bureau says 1,35,000 suicide deaths were estimated by WHO. Agriculture remains an important sector of economic development in most of the developing countries. It holds a promise of growth and serves as an effective tool for investment opportunities. Agriculture will contribute an urge of growth in economy, reducing poverty and sustaining environment. Risk Management in agriculture contributes to rise in productivity (Sona and Muniraju, 2018) [6].

In recent years, productivity of major crops in India has declined. There was a need to raise domestic food production at a faster rate by much higher productivity without upsetting the agrarian structure. Minimization of impact of natural disasters, crop losses, particularly from drought and heavy rainfall is a major objective for the government. An effective crop insurance scheme is significant to reduce income loss to farmers. Haryana has participated in each crop insurance programme introduced in India. Crop insurance was intended to provide farmers with insurance coverage and financial support against failure of any notified crop as a result of agricultural calamities. In April 2016, Pradhan Mantri Fasal Bima Yojana (PMFBY) - an area based scheme and Restructured Weather Based Crop Insurance Scheme (RWBCIS) was introduced (Gulati *et al.*, 2018) [3]. The study was conducted with following objectives:

- To know the claimed amount of crop insurance scheme received by respondents as per land holding

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- To delineate the socio-economic factors associated with level of adoption of crop insurance scheme
- To examine the causes of non-adoption of crop insurance scheme

Materials and methods

The study was conducted in wet zone of Haryana. From this region, two Districts, namely, Karnal and Kurukshetra were selected randomly. Thanesar block from Kurukshetra and Nilokheri from Karnal District were selected randomly for the purpose of the study. Raison and Nighdu villages from Nilokheri block and Bhainsi Majra and Pindarashi from Thanesar were selected randomly. On the whole, a total of 160 respondents were selected, who were adopting crop insurance scheme (80) and non-adopters (80). Interview schedule was prepared to collect the data from the field of the study. Data were analyzed and tabulated to draw the inferences.

Table 1: Crop insurance amount received by respondents as per land holding (Rs.)

Land holding	Frequency	Total Premium	Total Premium Paid	Total availed amount	Total land holding (acres)	Insured land holding (acres)	Availed amount per farmer	Availed amount per acre
Marginal	3	2298	1532	12,400	6	2	4133	2066
Small	33	47,480	33,504	5,77,000	136	128	17,485	4242
Semi-medium	29	63,157	45,095	6,25,400	203	150	21,565	3080
Medium	15	81,442	66,458	5,41,000	247	141	36,066	2190
Total	80	1,94,377	1,46,589	17,55,800	592	421	19,812	2895

Level of Adoption of crop insurance scheme of farmers as per Socio-economic Variables

Analysis clearly revealed that nearly half of the respondents (47.4%) had medium level of adoption regarding crop insurance scheme followed by low (36.3%) and high (16.3%) in figure 1. Raju and Chand (2008) and Saraswathi and Devaraju (2018) [5] also found the approximately same findings.

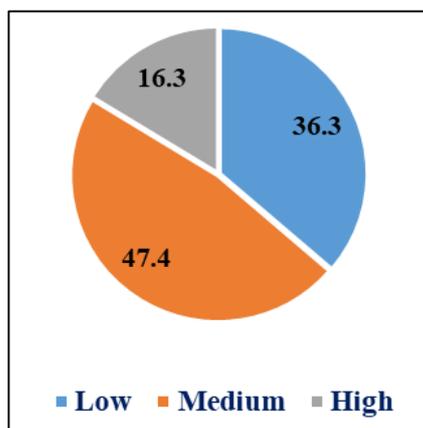


Fig 1: Level of adoption of crop insurance scheme

The factors associated with level of adoption of respondents for practices of crop insurance scheme were studied (Table 2). Age was found non-significantly associated with level of adoption of crop insurance scheme. Analysis revealed that maximum number of the respondents (43.9%), who belonged to above 50 years age group, had medium level of adoption of crop insurance scheme. On the other hand, 28.6% respondents had high level of adoption who belonged up to 5 years age group.

Caste and level of adoption of crop insurance scheme were found highly significantly associated. Maximum number of

Results and Discussion

Claimed amount of crop insurance scheme received by respondents as per land holding

Analysis clearly revealed that total premium amount of Rs. 1,46,589/- paid by farmers to the companies through various banks namely HDFC, PNB, Axis, OBC, Central Bank and Co-operative Society, while Rs. 1,94,374/- was the actual amount that to be paid (Table 1). Out of this amount, premium of crop insurance amount Rs. 66,458/- paid by medium farmers to the companies. Total amount of Rs. 17,55,800/- get the benefit of crop insurance scheme to respondents for 421 acres instead of 592. The results of the study indicate that an average amount of crop insurance scheme of Rs. 19,812/- was taken by respondents from various companies. On the other hand, that average amount of crop insurance scheme of Rs. 2895/- per acre was taken by respondents in both regions. Deepa *et al.* (2018) also found the approximately same findings.

the respondents (41.5%), who belonged to general caste, had low level of adoption of crop insurance scheme.

Educational level of the respondents was found highly significantly associated with level of adoption of crop insurance scheme. More than three-fourth of respondents (76.2%), who were illiterate, had low level of adoption of crop insurance scheme. On the other hand, more than one-third of the respondents (36.4%) who were graduate and above had high level of adoption of crop insurance scheme.

Subsidiary occupation and level of adoption of crop insurance scheme were found highly significantly associated. Overwhelming majority of the respondents (80.0%), who were engaged in business (small scale enterprise) and service, had high level of adoption of crop insurance scheme.

Size of land holding and level of adoption were found highly significantly associated. More than two-third of the respondents (69.7%), who had size of land holdings between 2.51 to 5.0 acres, had medium level of adoption of crop insurance scheme. Contrary to that, 26.7%, who had size of land holdings between 10.1 to 25.0 acres, had high level of adoption of crop insurance scheme.

Type of family was found highly significantly associated with level of adoption of crop insurance scheme. Nearly two-third of the respondents (63.6%), who belonged to nuclear family, had medium level of adoption of crop insurance scheme.

Size of family was found non-significantly associated with level of adoption of crop insurance scheme. Analysis revealed that more than half of the respondents (51.2%), who belonged to size of 5-8 members, had medium level of adoption of crop insurance scheme.

Highly significant association was found between annual family income and level of adoption of crop insurance scheme. Half of the respondents (50.0%), who earned annual family income above Rs. 6,00,000/- had high level of adoption of crop insurance scheme. On the other hand, maximum number of the respondents (48.1%), who earned

annual family income Rs. 2,00,000/- 4,00,000/- had low level of adoption of crop insurance scheme. Social participation was found highly significantly associated with level of adoption of crop insurance scheme. Nearly two-third of the respondents (63.0%), with no social participation, had low level of adoption. Contrary to that, 40.0% respondents, with high level social participation, had high level of adoption of crop insurance scheme.

Mass-media exposure and level of adoption of crop insurance scheme were found highly significantly associated. Analysis revealed that more than two-third of the respondents (67.9%), with medium level of exposure to mass media, had medium level of adoption of crop insurance scheme. Contrary to that, 36.0% respondents, with high exposure to mass media, had high level of adoption.

Table 2: Association between socio-economic variables and level of adoption of crop insurance scheme by respondents

Variables	Level of adoption			Total
	Low	Medium	High	
Age				
Up to 35 years age group	2 (14.3)	8 (57.1)	4 (28.6)	14 (17.5)
35-50 years age group	10 (40.0)	12 (48.0)	3 (12.0)	25 (31.3)
Above 50 years age group	17 (41.5)	18 (43.9)	6 (14.6)	41 (51.2)
Total	29 (36.3)	38 (47.4)	13 (16.3)	80 (100)
χ^2 Cal = 4.306				
Caste				
General caste	27 (41.5)	25 (38.5)	13 (20.0)	65 (81.3)
Backward caste	2 (13.3)	13 (86.7)	-	15 (18.8)
χ^2 Cal = 11.637**				
Education				
Illiterate	16 (76.2)	5 (23.8)	-	21 (26.3)
Up to middle school level	2 (20.0)	6 (60.0)	2 (20.0)	10 (12.5)
Secondary school level	7 (23.3)	20 (66.7)	3 (10.0)	30 (37.4)
Senior secondary level	2 (25.0)	2 (25.0)	4 (50.0)	8 (10.0)
Graduation and above	2 (18.2)	5 (45.4)	4 (36.4)	11 (13.8)
χ^2 Cal = 35.612**				
Subsidiary occupation of the family				
Nil	8 (28.6)	14 (50.0)	6 (21.4)	28 (35)
Cattle rearing	20 (42.5)	24 (51.1)	3 (6.4)	47 (58.7)
Business (small scale enterprise) and service	1 (20.0)	--	4 (80.0)	5 (6.3)
χ^2 Cal = 24.556**				
Size of land holding				
Marginal (up to 2.50 acres)	2 (66.7)	1 (33.3)	-	3 (3.8)
Small (2.51-5.0 acres)	9 (27.3)	23 (69.7)	1 (3.0)	33 (41.2)
Semi-medium (5.1-10.0 acres)	10 (34.5)	11 (37.9)	8 (27.6)	29 (36.2)
Medium (10.1-25.0 acres)	8 (53.3)	3 (20)	4 (26.7)	15 (18.8)
χ^2 Cal = 16.560*				
Type of family				
Nuclear	9 (20.5)	28 (63.6)	7 (15.9)	44 (55.0)
Joint	20 (55.6)	10 (27.7)	6 (16.7)	36 (45.0)
χ^2 Cal = 12.097**				
Size of family				
Up to 4 members	9 (37.5)	12 (50.0)	3 (12.5)	24 (30.0)
5-8 members	14 (34.2)	21 (51.2)	6 (14.6)	41 (51.3)
Above 8 members	6 (40)	5 (33.3)	4 (26.7)	15 (18.7)
χ^2 Cal = 4.123				
Annual family income				
Rs. 75,000-2,00,000	8 (24.2)	24 (72.8)	1 (3.0)	33 (41.2)
Rs. 2,00,000-4,00,000	13 (48.1)	8 (29.7)	6 (22.2)	27 (33.8)
Rs. 4,00,000-6,00,000	6 (75.0)	2 (25.0)	-	8 (10.0)
Above Rs. 6,00,000	2 (16.7)	4 (33.3)	6 (50.0)	12 (15)
χ^2 Cal = 28.400**				
Social participation				
Nil	17 (63.0)	8 (29.6)	2 (7.4)	27 (33.8)
Low (1-2)	9 (23.7)	24 (63.1)	5 (13.2)	38 (47.4)
Medium (3-4)	3 (20.0)	6 (40.0)	6 (40.0)	15 (18.8)
χ^2 Cal = 26.190**				
Mass media exposure				
Low (up to 9)	17 (63)	8 (29.6)	2 (7.4)	27 (33.7)
Medium (10-17)	7 (25.0)	19 (67.9)	2 (7.1)	28 (35.0)
High (above 17)	5 (20.0)	11 (44.0)	9 (36.0)	25 (31.3)
χ^2 Cal = 21.166**				
Socio-economic status				
Low (12-18)	18 (62.1)	10 (34.5)	1 (3.4)	29 (36.3)
Medium (19-24)	6 (18.7)	20 (62.6)	6 (18.7)	32 (40.0)
High (25-31)	5 (26.3)	8 (42.1)	6 (31.6)	19 (23.7)
χ^2 Cal = 32.203**				

Figures in parentheses denote percentage.

* Significant at .05% level.

**Highly significant at .01% level.

Highly significant association was found between socio-economic status and level of adoption of crop insurance scheme. Analysis revealed that more than three-fifth of the respondents (62.1%), who had low socio-economic status, had low level of adoption of crop insurance scheme. On the other hand, 31.6% respondents, who had high socio-economic status, had high level of adoption of crop insurance scheme.

Factors like age and size of family of the respondents were found non-significantly associated with level of adoption of crop insurance scheme. Dey and Maitra (2017) [2] were also supported the results in his work.

Causes of non-adoption of crop insurance scheme

Analysis revealed that reasons for non-adoption of crop insurance scheme were not aware about crop insurance among marginal farmers (85.7%), Lack of premium paying capacity among marginal farmers (80.9%), Lack of co-operation from bank employee among small farmers (81.1%), Willingness withdrawal premium of crop insurance scheme from the bank by medium farmers (85.7) and semi-medium farmers (60.0%), Delay in claim payment (71.4%) etc. (Table 3). Sreejamol *et al.* (2018) [7] were also found the same results.

Table 3: Causes of non-adoption of crop insurance scheme (n = 80)

S. No.	Causes of non- adoption	Marginal farmers 21 (%)	Small farmers 37 (%)	Semi-medium farmers 15 (%)	Medium farmers 7 (%)
1.	Not aware of crop insurance	18 (85.7)	29 (78.4)	3 (20.0)	-
2.	Lack of premium paying capacity	17 (80.9)	26 (70.3)	3 (20.0)	-
3.	Not satisfied with area approach	17 (80.9)	23 (62.2)	6 (40.0)	3 (42.8)
4.	Lack of co-operation from bank employee	16 (76.2)	30 (81.1)	7 (46.7)	3 (42.8)
5.	Complex documentation	16 (76.2)	16 (43.2)	8 (53.3)	4 (57.1)
6.	Delay in claim payment	9 (42.8)	13 (35.1)	8 (53.3)	5 (71.4)
7.	Willingness withdrawal from the bank	5 (23.8)	8 (21.6)	9 (60.0)	6 (85.7)
8.	Any others	11 (52.4)	10 (27.1)	8 (53.3)	4 (57.1)

Responses were multiple.

Figures in parentheses indicate percentage.

It was concluded that crop insurance scheme is a very unique and significant risk management tool introduced by Government of India for the welfare of the farmers. Critical analysis revealed that the crop insurance scheme is a real solution for the risk encountered by the farmers. Evaluating and regulating indexed insurance is really expertise area which demands lots of technical support. The central and state government need to join their hands in formulating and implementing more relevant schemes to the Indian farmers.

Journal of Pure and Applied Mathematics. 2018; 119(12):967-978.

References

1. Deepa T, Limasunep O, Feroze SM. Crop insurance in North-Eastern States of India: Performance of national agricultural insurance scheme. *International Journal of Agriculture Sciences*. 2018; 10(11):6325-6329.
2. Dey K, Maitra D. Agriculture insurance in India: Promise, pitfalls, and the way forward. *Economic and Political Weekly* 2017; 52(52):88-96.
3. Gulati A, Terway P, Hussain S. Report on Crop Insurance in India: Key Issues and Way Forward by Indian Council for Research of International Economic Relations. 2018; p-4.
4. Raju SS, Chand R. A study on the performance of national agricultural insurance scheme and suggestions to make it more effective. *Agricultural Economics Research Review*. 2008; 21(1):1-9.
5. Saraswathi K, Devaraju M. Awareness and perceptions of farmers about crop insurance: A study in Kolar district of Karnataka State. *International Journal of Advances in Science Engineering and Technology*. 2018; 6(1):90-94.
6. Sona HC, Muniraju Y. Status of Crop Insurance in India: A Study with Reference to Kodagu District of Karnataka State. *International Journal of Management Studies*. 2018; 5-3(9)
7. Sreejamol KS, Sridevi KB, Priyadarshini V, Visagamoorthi D. Farmers' behaviours and attitudes towards crop insurance scheme in India. *International*