



Crop insurance in Kangra district of Himachal Pradesh-Status and Problems

Sonal Dhiman and Rajesh Kumar Thakur*

Department of Agricultural Economics, Extension Education and Rural Sociology
College of Agriculture, CSK Himachal Pradesh Krishi Vishvavidyalaya, Palampur-176 062, India.

*Corresponding author: rkthakurkvk@yahoo.com

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Abstract

The present study was conducted to assess the status of crop insurance and problems faced by the farmers in the Kangra district of Himachal Pradesh. Among the different districts of the state, Kangra district has the highest number of cultivators and has diversified cropping systems. Therefore, the present study was conducted in Nagrota Bagwan and Panchrukhi blocks of the district Kangra. A sample of 80 farmers was selected through the proportional allocation method and data were collected on specifically designed survey schedules. The farmers were inquired about their perceptions on crop insurance and the problems faced by them. The status of crop insurance was studied with respect to number of farmers covered, area insured, premium paid by the farmers and government and the claims paid to them. The study revealed that the farmers covered, area insured and farmers benefitted have increased in the state under both *PMFBY* and *RWBCIS* but still the penetration of the scheme is not desirable as the major constraint cited by the respondents was the lack of awareness.

Key words: Crop insurance, *PMFBY*, *RWBCIS*, problems, lack of awareness

Agriculture has been and still is the major source of livelihood for a 50 per cent of the total population of India. However, it contributes to 20.20 per cent of the GDP (at current prices in 2015-16) (GoI, 2021). Through the concerted efforts of the planners, researchers, extension workers, and farmers there has been a significant increase in the production as well as yield levels of different agricultural commodities. The country has not only achieved self-sufficiency in food production but has also emerged as a major exporter of many agricultural commodities. The agricultural production process being biological in nature witnesses a high degree of risk and uncertainty. In this scenario of high risk and uncertainty of rain-fed agriculture, allocating risk is an important aspect of decision-making to farmers. It leads to operating risk in the cultivation of different crops (Wahab, 2019). Crop loss in agriculture is a common phenomenon and is one of the major reasons for farmers' suicide in our country. India saw a decline of 4.35 and 9.75 per cent in crop production due to extreme temperature and rainfall shocks, respectively, in the past decade (GoI,

2018). Thus to safeguard the interests of the farmers, agricultural insurance in India was first initiated in 1972-73, when the General Insurance Corporation (GIC) of India introduced a crop insurance scheme on H-4 cotton, which later extended to groundnut, wheat, and potato. The idea of crop insurance in India started with Mr. J. S. Chakravarthi, Ex-Officio Financial Secretary to the Government of Mysore who made the first attempt to introduce the drought protection scheme in 1915 (Rajaram and Chetana, 2016). The Pilot Crop Insurance Scheme (PCIS) was launched by the General Insurance Company in 1979 and the Comprehensive Crop Insurance Scheme (CCIS) was introduced by the Central Government in 1985-86. The CCIS was subsequently replaced by the National Agricultural Insurance Scheme (NAIS) owing to its various shortcomings and it became operational from 1999-2000 (*rabi* season) and this scheme continued till 2015-2016. Based on suggestions received from various corners, Modified National Agricultural Insurance Scheme (MNAIS) was implemented from 2013-14 to 2015 -2016 under the auspices of the

National Crop Insurance Programme. To bring more farmers under the fold of crop insurance, Weather Based Crop Insurance Scheme (WBCIS) was launched from *kharif* 2007-*rabi* 2013-14 and further full-fledged up to *rabi* 2015-16. Lastly, holding the opinions from various States/Union Territories, a new scheme namely, *Pradhan Mantri Fasal Bima Yojana* (PMFBY) was launched in 2016 in place of all the schemes except WBCIS.

Himachal Pradesh has a varied type of agro-climatic conditions ranging from Sub Mountain, Low Hills, Subtropical Zone (300- 650 m above mean sea level) to High Hills Temperate Dry Zone (2200 m above mean sea level) which are congenial for the cultivation of a wide range of crops like cereals, pulses, oilseeds, fodder, vegetables, flowers, herbs, medicinal crops, etc. in different parts of the state. The Department of Agriculture is promoting the cultivation of high-value crops like vegetables and flowers for the diversification of cropping systems of the state for increasing the income of the farmers. Given the domestic and market needs, the majority of the existing cropping systems in the state are mixed comprising cereals, pulses, oilseeds, fodder, vegetables and flowers. In order to compensate the losses of the field crops, the various crop insurance schemes as per the guidelines of central government are being implemented in the state from the last 20 years which might have provided relief to crop insurers. Thus, there is need for examining the farmers perceptions to various types of risks associated with crop production, which has not been done in the state so far. Therefore, the present endeavour has been planned to study the status of crop insurance schemes, assessment of coverage, cost and compensation in the Kangra district of Himachal Pradesh as among the different districts of the state, Kangra district has the highest number of cultivators and total cropped area.

Methodology

A two-stage random sampling design was used for selecting the respondents from the study area. At the first stage of sampling, out of 15 developmental blocks two blocks; Panchrukhi and Nagrota Bagwan were selected randomly. At the 2nd stage of sampling, the list of farmers who have insured their crop during the agricultural year 2019-20 was prepared in consultation

with the officials of the department of agriculture and lead bank/insurance companies for the selected blocks. From the list so prepared a sample of 80 farmers were selected randomly through proportional allocation method from the selected blocks. To fulfill the requirements of the study, the primary data were collected through personal interview method on specifically designed survey schedules and the secondary data were collected with respect to the number of farmers covered under crop insurance, claim settled etc. from the Agriculture Department and the Agriculture Insurance Company. The collected primary and secondary data was compiled in a worksheet. In order to meet out the requirements of the specific objectives of the study, the data were analysed. The results have been presented by working out the averages, percentages, ratios, indices, etc. by using suitable mathematical and statistical tools.

Simple growth rate was calculated for the time series data of less than 5 years.

$$\frac{vf-vb}{vb} * 100$$

where;

Vf= Final year value

Vb=Base year value

Results and Discussion

The socio-economic profile of the farmers

The average size of family of the respondents was found to be at 5.41 members in which the proportion of males was relatively higher with the sex ratio of about 986. The age wise distribution of the sample population indicated that the majority of the population i.e. about 30 per cent belonged to the age group of 40-60 years. As far as the heads of the families were concerned, the majority (57.50 per cent) was also in the age group of 40-60 years followed by the age group >60 years accounting for 35 per cent heads of the families. The overall literacy rate of the sample population was quite good as 92.02 per cent of the total population which was 96.06 and 87.88 per cent in case of male and female, respectively. The majority of the sample population (63 per cent) was involved in agricultural activities followed by in government service/ pension (11.18 per cent). The average size of land holding on the sample farms was low i.e. 0.5330

ha, out of which 0.2773 ha (52.02 per cent) was irrigated. The available land was being put under cultivation, forest, pasture & grasslands, orchards, etc. Among the different land uses highest area was allocated for cultivation of crops i.e. 0.3741 ha accounting for about 70 per cent of total land holding. The cropping intensity on sample household was about 204 per cent which indicates that cultivated land is used more than once in a year.

Potential risks faced by the farmers

The risk in crop production is a common phenomenon and the major source of risks includes production, price, financial, institutional and human risks. The majority of the respondents i.e. 60, 46.25, 47.5, 43.75 and 41.25 per cent were of the view that the production risks i.e. risks associated with rainfall, insect-pest infestation, plant diseases and irrigation have started to occur more frequently since past five to ten years. However, a few farmers were of the opinion that rainfalls, stray animals, plant diseases, inadequacy of irrigation risks have their origin since 10-15 years. The examination of perceptions of the respondents about the different sources of risks in crop production indicated that among different sources of risks, the production was found to be major concern by around 84 per cent of respondents. Next to production risk, price risk was attributed as a risk of major concern by 11.25 per cent of the respondents followed by 7.50 per cent who believed that human risk was the risk of major concern to crop production.

To prevent the losses from these risks, various risk management strategies were adopted by the farmers and among those cent per cent farmers were insured and 83.75 per cent have adopted inter-cropping. During the period of 2018 to 2020, two crop insurance schemes i.e. *Pradhan Mantri Fasal Bima Yojna* and Restructured Weather Based Crop Insurance Scheme were operational in the district.

Status of *Pradhan Mantri Fasal Bima Yojana (PMFBY)* in Kangra district

The status of *Pradhan Mantri Fasal Bima Yojana* with respect to cost, coverage, and compensation has been presented in the Table 1. The table clearly shows that the sum insured in 2018 was 6653.84 lakh rupees which increased to 7695.20 lakh rupees in 2019 but fell to 7178.44 lakh rupees in 2020. The sum insured grew at a rate of 7.88 per cent over three years. The premium paid by the farmers showed the same pattern and was 112.86 lakh rupees, 133.85 lakh rupees, and 125.81 lakh rupees in 2018, 2019, and 2020. The premium paid by the farmers increased at a growth rate of 11.47 per cent over three years. The subsidy to be provided to the farmers was equally divided between state and central government and increased continuously in 2018 (45.28 lakh rupees), 2019 (160.48 lakh rupees), and 2020 (408.93 lakh rupees). Over the period of three years, the state and central government premiums have increased at a rate of 347.90 per cent while the gross premium increased at a rate of 161.25 per cent.

Table 1. Cost, coverage, and compensation for *PMFBY* in Kangra district

Year	Cost (lakh rupees)				Gross premium	Coverage		Compensation (lakh rupees)	
	Sum insured	Farmer premium	State premium	GOI premium		Area Insured ('000 ha)	Number of farmers	Farmers benefitted	Claim paid
2018	6653.84	112.86	45.28	45.28	203.42	22.19	59570	27481	196.14
2019	7695.2	133.85	160.84	160.84	455.53	25.65	66525	28251	199.19
2020	7178.44	125.81	202.81	202.81	531.43	23.93	64540	26490	195.05
Total	21527.48	372.52	408.93	408.93	1190.38	71.77	190635	82222	590.38
Mean	7175.83	124.17	136.31	136.31	396.79	23.92	63545	27407.33	196.79
SGR	7.88	11.47	347.9	347.9	161.25	7.84	8.34	-3.61	-0.56

Source: PMFBY dashboard & AIC

The scheme covered 59,570 farmers insuring an area of about 22,000 ha in 2018 which increased to 66,525 farmers insuring 25.65 '000 ha area but the number of farmers declined in 2019 to 64,540 insuring 23.93 '000 ha. in 2020. The area insured increased at a rate of 7.84 per cent per annum while the farmers covered grew at a rate of 8.34 per cent over three years.

In the year 2018, 27,481 farmers were paid 196.14 lakh rupees as claim and in 2019, 28,251 were benefitted with a claim amount of 199.19 lakh rupees which decreased to 26,490 farmers with claims paid of 195.05 lakh rupees. The data revealed that both the farmers benefitted and claims have decreased over the years by 3.61 and 0.56 per cent, respectively.

Status of Restructured Weather Based Crop Insurance Scheme (RWBCIS) in Kangra district

The status of Restructured Weather Based Crop Insurance Scheme with respect to cost, coverage, and compensation for RWBCIS have been presented in the Table 2. The table clearly shows that the sum insured in 2018 was 11.23 lakh rupees which increased to 30.75 lakh rupees in 2019 and 34.94 lakh rupees in 2020. The sum insured grew at a rate of 211.13 per cent over three years. The premium paid by the farmers showed the same pattern and was 0.5616 lakh rupees, 1.3 lakh rupees, and 1.75 lakh rupees in 2018, 2019, and 2020. The premium paid by the farmers increased at a growth rate of 211.61 per cent over three years. The subsidy

provided to the farmers was equally divided between state and central government and was 0.6252 lakh rupees (2018), 0.173 lakh rupees (2019), and 4.18 lakh rupees (2020). Over the period of three years, the state and central government premiums have increased at a rate of 568.59 per cent over three years while the gross premium increased at a rate of 458.56 per cent over three years.

The scheme covered 46 farmers in the district insuring an area of about 1.12,000 ha in 2018 which increased to 184 farmers insuring a 1.15 '000 ha area but the number of farmers declined in 2019 to 179 insuring 1.26 '000 ha. in 2020. The area insured increased at a rate of 12.5 per cent per annum while the farmers covered grew at a rate of 289.13 per cent per annum.

In the year 2018, 11 farmers were paid 1.1 lakh rupees as claim and in 2019, 53 were benefitted with a claim amount of 1.4 lakh rupees which further increased to 61 farmers with claims paid of 2.1 lakh rupees. The data showed that both the farmers benefitted and claims have increased over the years by 454.55 and 90.91 per cent, respectively.

The problems faced by the farmers

For the successful implementation of any scheme, it takes collective efforts of various stakeholders and the feedbacks of the implementing agencies and the targeted group of people play an important role. The

Table 2. Cost, coverage, and compensation for RWBCIS in Kangra district

Year	Cost (lakh rupees)					Coverage		Compensation (lakh rupees)	
	Sum Insured	Farmer premium	State premium	GOI Premium	Gross Premium	Area Insured ('000 ha)	Number of farmers	Farmers benefitted	Claim paid
2018	11.23	0.5616	0.6252	0.6252	1.81	1.12	46	11	1.10
2019	30.75	1.30	0.173	0.173	1.646	1.15	184	53	1.40
2020	34.94	1.75	4.18	4.18	10.11	1.26	179	61	2.10
Total	76.92	3.6116	4.9782	4.9782	13.566	3.53	409	125	4.60
Mean	25.64	1.20	1.66	1.66	4.52	1.18	136.33	41.67	1.53
SGR	211.13	211.61	568.59	568.59	458.56	12.50	289.13	454.55	90.91

Source: PMFBY dashboard & AIC

Table 3 summarizes the perceptions and the problems of the farmers regarding crop insurance schemes. The analysis of the data revealed that 98.75 per cent of the respondents lacked the awareness of crop insurance in one way or another. Some respondents were not aware of their crops being insured as they were covered automatically as loanee farmers.

About 59 per cent of the farmers believed that the programme has procedural complexities which also become a reason for farmers either not insuring the crop or not reporting the loss on time. About 66 per cent of the farmers were of the view that the premium rates of the insurance were quite high and 82 to 87 per cent of farmers believed that the risks covered under the insurance programme are either not of interest or the programme does not address the practical problems. The loss assessment and the settlement of the claims were also not considered flawless. About 41 per cent of the total respondents believed that there is a wide difference between the actual yields and the threshold yields. About 26 per cent of the farmers believed that the loss assessment under the program is not proper and 21 per cent believed that the claims are not settled timely. The problems in one way or the other lead to either creating a disinterest among the farmers about the insurance or farmers opting out of the insurance.

Conclusion

The majority of the farmers i.e. 98.75 per cent lacked awareness about crop insurance schemes. The procedural complexities and impractical risk coverage were also cited as the flaws in the scheme. The

improper loss assessment and the delayed settlement of claims were also highlighted as major issues by the respondents. According to Garrett scoring, the lack of awareness among farmers was found to be the major problem whereas, the timely settlement of the claims was found to be least concerning problem for the farmers. The miscommunication among the stakeholders has also been a major cause of non-successful implementation of the scheme. Improving the awareness of the farmers is the first and foremost requirement for the successful implementation of crop insurance schemes. This can be done by organising awareness camps and campaigns by the department of Agriculture/Horticulture, SAUs, KVKs, crop insurance companies. These departments are also imparting the routine trainings to the farmers on different aspects of farming, the aspect of crop insurance may also be included in different training modules. Although, efforts are being made by government to publicise the crop insurance schemes through different mass media (radio, television, newspapers, etc.) but in these advertisements the messages are too short. Therefore, printed material in national and local languages indicating various terms and conditions of crops insurance may be developed and provided to the farmers. In addition to this, the achievements regarding crop insurance should be published each year in the form of small booklets which should also be distributed to the farmers so that they are well aware about every aspect of the crop insurance.

Conflicts of interest: There are no conflicts of interest.

Table 3. Problems confronted by sample farmers

Sr. No.	Particulars	Number	Per cent
1	Lack of awareness	79	98.75
2	Procedural complexities	47	58.75
3	High premium rate	53	66.25
4	Risks covered are not of interest	69	86.25
5	Provisions do not address practical problems	66	82.5
6	Wide difference between actual and threshold yields	33	41.25
7	Delayed settlement of insurance claims	17	21.25
8	Improper loss assessment	21	26.25

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