

Farmers' Views On Crop Insurance And Its Benefits Using Weighted Sum Model (Wsm)

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ABSTRACT

Crop insurance plays an important role in the Indian agriculture sector, especially in the delta districts of Tamil Nadu and plays a dynamic role in the agriculture sector. The delta districts of Tamil Nadu are highly dependent on various climatic conditions such as heavy and light monsoons throughout the year, inclement weather, droughts, floods and various climatic uncertainties. Due to climate uncertainty, farmers face pest, disease, low yield, lack of colour, low quantity, quality and other problems in agriculture. Government of India has given high priority to farmers to improve their agricultural activities by getting adequate and high income from agriculture. The government introduced the Crop Insurance Scheme in 1972 to ensure adequate income to farmers through agriculture. The primary objective of the study is to find out the opinion of farmers on crop insurance schemes in the sample district. Descriptive and exploratory methods were used in the research. Subsequently, multi-stage random sampling technique was used to determine and identify the sample farmers. Also, farmers' opinion was analysed with the help of Weighted Sum Model (WSM). Based on the survey results, most of the farmers in the study area have taken insurance under crop insurance schemes to get government subsidies and most of the farmers opined that wide coverage and low premium is another important factor. However, other factors such as higher maturity value, additional coverage and ease of insuring do not influence farmers much to insure under crop insurance schemes.

Keywords: Crop Insurance, Farmers Views, WSM, Benefits.

1. INTRODUCTION

Crop insurance plays an important role in the Indian agriculture sector, especially in the delta districts of Tamil Nadu and plays a dynamic role in the agriculture sector. The delta districts of Tamil Nadu are highly dependent on various climatic conditions such as heavy and light monsoons throughout the year, inclement weather, droughts, floods and various climatic uncertainties. Due to climate uncertainty, farmers face pest, disease, low yield, lack of colour, low quantity, quality and other problems in agriculture. Government of India has given high priority to farmers to improve their agricultural activities by getting adequate and high income from agriculture. The government introduced the Crop Insurance Scheme in 1972 to ensure adequate income to farmers. Father of Crop Insurance in India Professor V.M. Dandekar introduced an alternative approach to crop insurance schemes in the mid-seventies such as the "Homogeneous Area Approach" to provide better benefits to the farmers and insurance companies. In line with this approach, various crop insurance schemes have been introduced in India and recently the Government of India introduced the Pradhan Mantri Fazal Bhima Yojana (PMFBY) insurance scheme. As a result, most of the farmers in India continue to benefit from crop insurance in various aspects of production, especially the delta districts. In this background this study has been carried out to know the opinion of farmers about crop insurance and its benefits in the study area.

2. REVIEW OF LITERATURE

Relevant literature review is important for effective conduct and completion of the study. Several studies have been carried out in India on the contribution of crop insurance schemes in India. Some important studies have been revealed in this part of the study.

Kalimuthu & Priyanka (2023) conducted a research study entitled crop insurance schemes in Coimbatore city. The ultimate objectives of the study were to know the level of awareness on farmers about crop insurance schemes and farmers opinion and attitude about using the schemes. The study found that, since 1972 many insurance schemes were launched in India but all the schemes are not fully fulfilled the needs of farmers in all the aspects.

Srinivasan S, et. Al (2022) critically analyzed the performance of crop insurance schemes. The primary objective of the study was to compare the different insurance schemes implemented in India from 1972. The study found that the recent crop insurance scheme of PMFBY is resolving the many flaws in the existing insurance schemes. In this scheme the insurance company using several modern technologies to identified the affected place accurately. However, the schemes is not fully benefited to the farmers in all aspects.

Hem Raj, et al (2021) analyzed the contribution of Pradhan Mantri Insurance Schemes in Indian agricultural sector. The study found that the number of insured in this scheme was low and the claim also very low in the study area. The study further found that most of the sample farmers were not happy about the insurance schemes and its features in coverage, risk mitigation and customer support.

Daliwal R (2014) critically examined the effectiveness of agricultural insurance schemes in India. The study addressed the how much the agricultural insurance schemes mitigate the loss of farmers in India and found that the agricultural insurance schemes does not fully mitigate the loss in agricultural sector.

Madhurim, et al (2011) conducted a research study entitled farmers knowledge on agricultural insurance schemes. The primary objective of the study was to examine the agricultural insurances and its problems and prospects. The study found that the most of the farmers were faced two major problems in farming i.e., uncertainty climatic conditions and price. Hence, all the sample farmers opined that the insurance companies only covered maximum of 50 percentage of loss in production and not covered the selling price. Thus, the study recommend that the government may introduce new agricultural insurance scheme on cover both the risk.

Ramesh D (2008) examined the contribution of Agricultural Insurance Schemes in India. The researcher found that, both the government and private insurance companies were not performed at acceptable level to the farmers in whole India. Based on the study findings the researcher given some suggestions to improve the agricultural insurance schemes in India i.e., the insurance companies should function in more operative nature and give much priorities to small and marginal farmers to increase the national income.

3. OBJECTIVE OF THE STUDY

The primary objective of the study is to find out the opinion of farmers on crop insurance schemes in the sample district.

4. MATERIALS AND METHODS

The basic objective of this study is to know the opinion of the farmers on the utilization of crop insurance schemes offered by Government of India in a sample district. Therefore, descriptive and exploratory methods of research were used. Subsequently, multi-stage random sampling technique was used to determine and identify the sample farmers. Sample Mayiladuthurai district consists of five constituencies namely Mayiladuthurai (54), Guthalam (51), Sembanarkoil (57), Sirkazhi (37), Kollidham (42) and comprises 241 Grama Panchayats. All the five blocks were selected as sample blocks. From the five selected constituencies, each 10 per cent gram panchayats are randomly selected i.e., a total of 24 grama panchayats. Also, every 10 farmers were determined and randomly selected from the selected Grama Panchayats i.e., total 240 farmers as sample farmers. Also, farmers' opinion was analyzed with the help of Weighted Sum Model (WSM).

5. RESULTS AND DISCUSSION

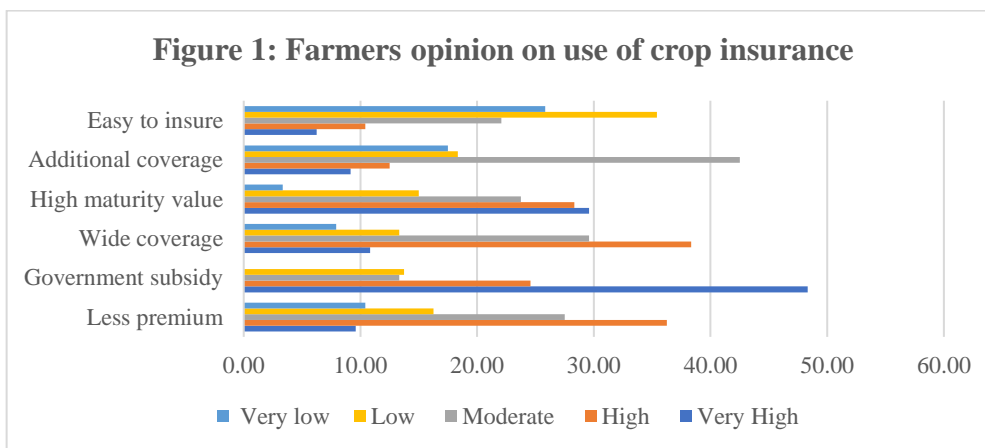
The sample farmers were asked how much weightage they give to purchasing crop insurance plans and how they take the decision. Likert's five points scale technique was used to obtain farmers' views and opinions on crop insurance schemes available in the study area. Also, the weighted sum method was used to find out the weightage given to crop insurance schemes in the study area. Details are as follows and the analysis results are given in the following tables.

- A. less premium
- B. government subsidy
- C. wide coverage
- D. high maturity value, and
- E. additional coverage

F. easy to insure

Table 1: Farmers opinion on use of crop insurance

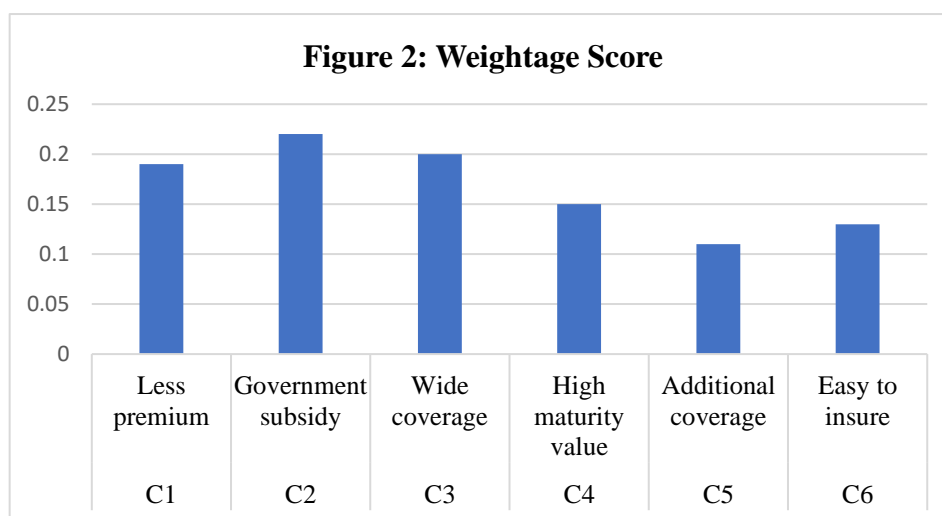
Factors	Farmers Opinions					Total
	Very High	High	Moderate	Low	Very low	
Less premium	23 (9.58)	87 (36.25)	66 (27.50)	39 (16.25)	25 (10.42)	240 (100)
Government subsidy	116 (48.33)	59 (24.58)	32 (13.33)	33 (13.75)	0	240 (100)
Wide coverage	26 (10.83)	92 (38.33)	71 (29.58)	32 (13.33)	19 (7.92)	240 (100)
High maturity value	71 (29.58)	68 (28.33)	57 (23.75)	36 (15.00)	8 (3.33)	240 (100)
Additional coverage	22 (9.17)	30 (12.50)	102 (42.50)	44 (18.33)	42 (17.50)	240 (100)
Easy to insure	15 (6.25)	25 (10.42)	53 (22.08)	85 (35.42)	62 (25.83)	240 (100)



The analysis of sample farmers opinion on using crop insurance schemes revealed that, majority of the farmers opined that the government subsidy (72.91 percent), high maturity value (57.91 percent) and less amount of premium (45.83) were highly influenced the farmers to insured in crop insurance schemes in sample district. However, the other factors such as easy to insure, additional coverage and wide coverage were low and moderately influenced to insure in crop insurance schemes.

Table 2: Weightage score for giving priorities to insure

Code	Criteria	Weightage
C1	Less premium	0.19
C2	Government subsidy	0.22
C3	Wide coverage	0.20
C4	High maturity value	0.15
C5	Additional coverage	0.11
C6	Easy to insure	0.13
Total		1.00

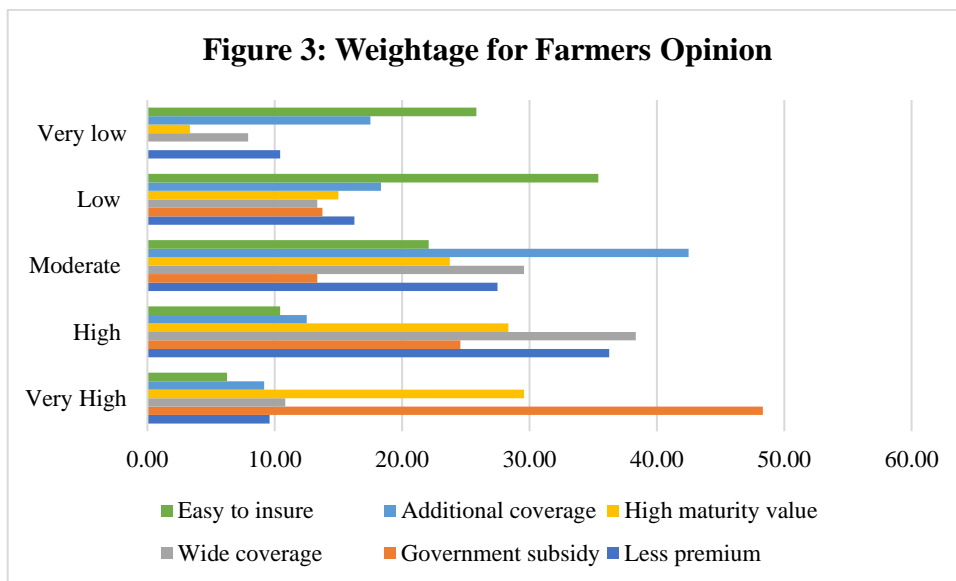


The overall weightage scores wise analysis of sample farmers opinion about using crop insurance schemes indicates that the influencing factor of government subsidies ranked first among the identified six influencing

factors. Followed by wide coverage placed second and less premium placed third factors to influence the farmers to insure in crop insurance schemes in the study area. The other factors such as high maturity value, additional coverage and easy to insure are have low level influence to insure in crop insurance schemes. Thus, the result clearly indicates that most of sample farmers insured in crop insurance schemes for getting government subsidies.

Table 3: Weightage for Farmers Opinions

Code	Less premium	Government subsidy	Wide coverage	High maturity value	Additional coverage	Easy to insure
A1	Low	High	Low	Medium	Low	Low
A2	High	Medium	High	Medium	Low	Low
A3	Medium	Low	Low	Low	High	Medium
A4	Low	Low	Low	Low	Low	High
A5	Medium	Low	Low	Low	Low	Low



The analysis of farmers opinion about the benefits of crop insurance schemes using likerts scaling techniques reveals that the influencing factor less premium have higher source of influence than other influencing factors and wide coverage placed last influencing factors to influence the farmers to insure in crop insurance schemes. Further, the farmers opinion about factors influence to insure in crop insurance schemes is sorted from high to low is presented in the following table.

Table 4: Sorting of farmers interest based on their opinion

Code	Criteria	Weightage
C2	Government subsidy	0.22
C3	Wide coverage	0.20
C1	Less premium	0.19
C4	High maturity value	0.15
C6	Easy to insure	0.13
C5	Additional coverage	0.11

The sorting of farmers interest based on their opinion score value clearly shows that factor government subsidy scored in highest value of 0.22 out of 1 total value and it placed first position. Followed, by wide coverage scored the value of 0.20 (second position), less premium scored the value of 0.19 (third position), high maturity value scored the value of 0.15 (fourth position), easy to insure scored the value of 0.13 (fifth position) and additional coverage scored the value of 0.11 (sixth position). Hence, the overall analysis results clearly indicates that most of the sample farmers were insured in crop insurance schemes to avail government subsidies and majority of the farmers insured in crop insurances due to wide coverage and less premium.

6. CONCLUSION

The study analyzed the views and opinions of farmers on crop insurance scheme. Based on the study results, most of the farmers in the study area opined that they have taken insurance in crop insurance schemes to get government subsidies and most of the farmers opined that wide coverage and low premium is another

important factor affecting them. However, other factors such as higher maturity value, additional coverage and ease of insuring do not influence farmers much to insure under crop insurance schemes.

7. SUGGESTIONS

Based on the results of the study the following recommendations are given;

- i. Most of the farmers opined that they have taken insurance in crop insurance schemes only to get government subsidy. Therefore, government can give more importance to inclusion of new crops in the list, speedy process of settlement and many other important benefits.
- ii. Also, most of the farmers opined that wide coverage and low premium is another important factor for insuring crop insurance schemes. Therefore, the government can add more coverage, increase the maturity value, simplify the procedures for insurance, increase the claim rate and enrich the stability of farmers' income.

8. REFERENCE

1. Beula, et al (2023) "A Study on Performance of Crop Insurance Schemes In India", Journal of Algebraic Statistics, Volume 13, No. 3, 2022, p. 226 – 232, <https://publishoa.com>, ISSN: 1309-3452.
2. Kalimuthu M & Priyanka G (2023) "Analysis of Crop Insurance Scheme with Special Reference to Coimbatore City", EPRA International Journal of Environmental Economics, Commerce and Educational Management Journal, DOI: 10.36713/epra0414, Volume 10, Issue: 6, June 2023, ISSN: 2348 – 814X.
3. Hebsiba. B, et al. (2021) "Prediction of the Crop insurance Scheme Pradhan Mantri Fasal Bima Yojana in Tamilnadu", International Journal of Risk and Contingency Management, Volume 10, Issue 4.
4. AICI, (2020) "National Agricultural Scheme: Scheme & Guidelines" Agriculture Insurance Company of India Ltd., New Delhi.
5. Agriculture Policy: Vision 2020 Indian Agricultural Research Institute, New Delhi.
6. Economic Survey (2020): Ministry of Finance, Government of India, New Delhi.
7. Aryal J, et al. (2020) "Economic and social impacts of e-commerce", International Journal of Computing and Corporate Research, Volume 3, November 2020.
8. Kalimuth M & Sounder R (2020) "Awareness and Perceptions towards Crop Insurance Schemes with Special Reference to Coimbatore District", EPRA International Journal of Research and Development, Vol.5, Issue 11, pp 255-259, November 2020, ISSN No: 2455 – 7838 (Online), DOI: <https://doi.org/10.36713/epra2016>, SJIF Impact Factor: 7.001, ISI I.F Value: 1.241.
9. Berra (2019) "Climate change and agriculture in South Asia: Adaptation options in smallholder production systems", The journal of Environment, Development and Sustainability, Volume 20(6), Novembre 2019, ISSN: 5045–5075.
10. Ghosh, R. K. (2018) "Index Based Crop Insurance Product Design and Ratemaking: The case of the modified NAIS in India", World Bank.
11. Gulati, A. et al. (2018) "Report on Impact Evaluation of Pilot Weather Based Crop Insurance Scheme (WBCIS), Ministry of Agriculture, New Delhi.
12. Saraswathi KM (2018) "Awareness and perceptions of farmers about crop insurance" International Journal of Advances in Science Engineering and Technology, Volume 6, Issue 1, Special Issue-1, Feb.-2018, Page 90-94, ISSN(p): 2321 –8991, ISSN(e): 2321 –9009.
13. Nagentran, M & Rajendran, R (2017) "Economic Anlysis of Crop Insurance Scheme: A critical review", Shanlax International Journal of Economics, Vol. 5; No. 2; March 2017, ISSN No: 2319-961X.
14. Jon H M (2014) "Crop Insurance: An Empirical Study on Awareness and Perceptions" International Journal of Innovative Research in Technology (IJIRT), Volume 5, Issue 2, ISSN:2349-6002.
15. Uvaneswaran S.M (2014) "Farmers Perception and Awareness about Crop Insurance in Tamilnadu – a descriptive analysis" International Journal of Marketing Research Review, Volume 2, Issue 3, March 2014, ISSN: 2321-0346- Online ISSN:2347-1670-Print Page 55-22.
16. George T M, et al (2013) "Food Crop Farmers Willingness to Participate in Market Based Crop Insurance Scheme: Evidence from Ghana", Macro think Institute, Research in Applied Economics, Vol. 5, No. 1, 2013, PP 1-21.
17. Bindiya KS & Jigna T (2013) "Crop Insurance: An Empirical Study on Awareness and Perceptions" Gian Jyoti E- Journal, Volume 3, Issue 2 (Apr-Jun 2013) E-ISSN 2250-348X PP.NO:81 TO 93.
18. Arun K D, et al., (2012) "Agricultural Insurance In India- A Paradigm Shift in Indian Agriculture", International Journal of Research in Economics & Social Sciences, Vol. 2, No. 2, 2012, PP138-150.
19. Cory G et al., (2012) "Crop Insurance, Land Allocation, and the Environment", Journal of Agricultural and Resource Economics Vol. 37No.2, 2012, PP 301–320.