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Crop Insurance Schemes in Kerala: Extent, Challenges and Solutions

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Abstract: **The extreme dependence of Indian agriculture on climatic and weather conditions poses a threat to the livelihood of majority of Indian farmers making agriculture a riskier business. In this context, the need and benefits of crop insurance schemes as an important tool of risk mitigation hardly need any elaboration. Crop Insurance provides a safety net for farmers to mitigate losses arising from climatic shocks and also encourages them to continue investing in inputs and technology to increase yields and household income. For fulfilling this need, Government of India has made experiments and efforts by introducing various schemes of crop insurance from time to time. The latest in the series, PMFBY has launched in 2016.With the emergence of newer and newer schemes of crop insurance in India, farmer participation in these schemes are not yet satisfactory. What is more striking is the high disparity in the coverage of crop insurance across different states in India. In states like Kerala, the coverage is very low where one third of the workforce depends on agriculture and allied activities seem to be paradoxical. In the recent flood fury that has severely impacted a large section of over 19 lakh farmers in Kerala, only a little over 46000 farmers has insured their crops, which reflects that the farmers are still unaware of the details of crop insurance schemes. The poor implementation of crop insurance schemes in many states suggests the need for a state-specific approach in the formulation and implementation of these schemes. This research paper made an attempt to analyse the extent of coverage of crop insurance schemes in Kerala focusing on a micro-level study and identify the demand and supply constraints in the growth of crop insurance schemes in Kerala.**

Keywords: **Crop Insurance, PMFBY, Agriculture, Risk Mitigation.**

1. INTRODUCTION

Agriculture plays a vital role for the sustainable growth and development of the Indian economy. Though the contribution made by the agricultural and allied sectors to GDP has declined over the years, this sector still continues to provide livelihoods to majority of the Indian population. Also this is one of the sectors that help in meeting the food and nutritional requisites of the country's 1.3 million people. Despite impressive development of agricultural infrastructure and irrigation potential, a large part of Indian agriculture still is exposed to climatic risks such as floods, droughts, cyclones, storms, landslides, earthquakes, etc. Weather variability and uncertainty of crop yields is a basic risk faced by agriculturalists worldwide. The magnitude and intensity of this, however, is particularly high in India owing to extreme dependence of the farm sector on weather conditions and the poor economic condition of the overwhelming majority of farmers who have extremely limited means and resources to cope with the disastrous consequences of a crop failure.

The risk to output and income resulting from various natural and man-made events could be reduced by providing various kinds of securities and assurance to the farmers. Crop insurance constitutes one such ex- ante risk coping instrument. It insures farmers and crop producers against their loss of crops due to natural calamities such as drought, floods, or failure of monsoons, etc. It provides a safety net for farmers to mitigate losses arising from climatic shocks and also encourages them to continue investing in inputs and technology to increase yields and household income. Looking differently, it is one method by which farmers can stabilize farm income and investment and guard against disastrous effect of losses due to natural hazards or low market prices. Crop Insurance schemes constitute an important instrument for agricultural development in a country like India where crop failure due to natural calamities is a recurring phenomenon.

Though the proposition of insuring crops in India dates back to 1920, no serious efforts were made to implement it. Between 1947 and 1985, there were isolated schemes of crop insurance. These pilot schemes were generally crop or location specific. The central government decided to introduce a country wise crop insurance scheme commencing from Kharif season of 1985 called comprehensive crop insurance scheme (CCIS), which was an area approach. A primary feature of this scheme is that it was a mandatory scheme for loanee farmers. A few modification and improvements were made to this scheme and subsequently the National Agricultural Insurance Scheme (NAIS) was launched from Rabi 1999. Sharecroppers were included for insurance cover under this scheme. This was further improved and modified NAIS (MNAIS) was launched on a pilot basis from Rabi 2010-11. It then became a full-fledged scheme under the National Crop Insurance Programme (NCIP). Later, a revamped, comprehensive and transformative insurance scheme called Pradhan Mantri Fasal Bhima Yojana (PMFBY) has been launched from Kharif 2016. Lower premium rates and use of technology are the two important features of this scheme. State level initiatives regarding the crop insurance were also started in the early 90s like the State Insurance Scheme of Kerala 1995 under the guidance and direction of the Office of the Director of Agriculture.

Table 1.1 : Timeline and Main Features of Crop Insurance Schemes

Start and End date	Name of crop insurance scheme	Primary Feature of the Scheme
1972-78	First individual approach crop insurance scheme	First scheme in India after independence
1979-84	Pilot Crop Insurance Scheme	First area index based scheme
1985-99	Comprehensive Crop Insurance Scheme	Crop insurance made mandatory for all loanee farmers
1997-98	Experimental Crop Insurance Scheme(ECIS)	Fully subsidised scheme
1999-2016	National Agricultural Insurance Scheme(NAIS)	Sharecroppers were included for insurance cover
2003-04	Farm Income Insurance Scheme	First scheme to cover farm income, rather than the cost of cultivation
2007-to date	Weather Based Crop Insurance Scheme(WBCIS)	First scheme to ascertain crop loss based on deviation in rainfall
2010-2016	Modified National Agricultural Insurance Scheme(MNAIS)	Private players were encouraged. Immediate partial payment to affected farmers introduced
2016-to date	Pradhan Mantri Fasal Bima Yojana(PMFBY)	Premium rates were lowered. Use of technology emphasised.

Source: Pal and Mukerjee (EPW September 2017)

2. PURPOSE OF THE STUDY

Crop Insurance schemes constitute an important instrument for agricultural development in a country like India where crop failure due to natural calamities is a recurring phenomenon. Even though the need to protect Indian farmers from agricultural variability has been a continuing concern of agricultural policy and many schemes of crop insurance have been implemented over the years the country has not make much headway in this direction. In India, the coverage of farmers compared to other countries is lower. According to the NSSO Situation Assessment Survey, 2013, the percentage of farmers insured in the country under important schemes of crop insurance between July 2012 and June 2013 was only 7.22 per cent. The recently launched PMFBY 2016 aims to cover at least 50 per cent of farmers by 2018 against the coverage of below 20 per cent in 2016. But the latest data shows that despite the Centre pumping more funds into its flagship crop insurance scheme, coverage among farmers is on the decline and not even 30 per cent of the farmers are insure at present. Not only the coverage of crop insurance in India is low but more importantly, the country is noted for

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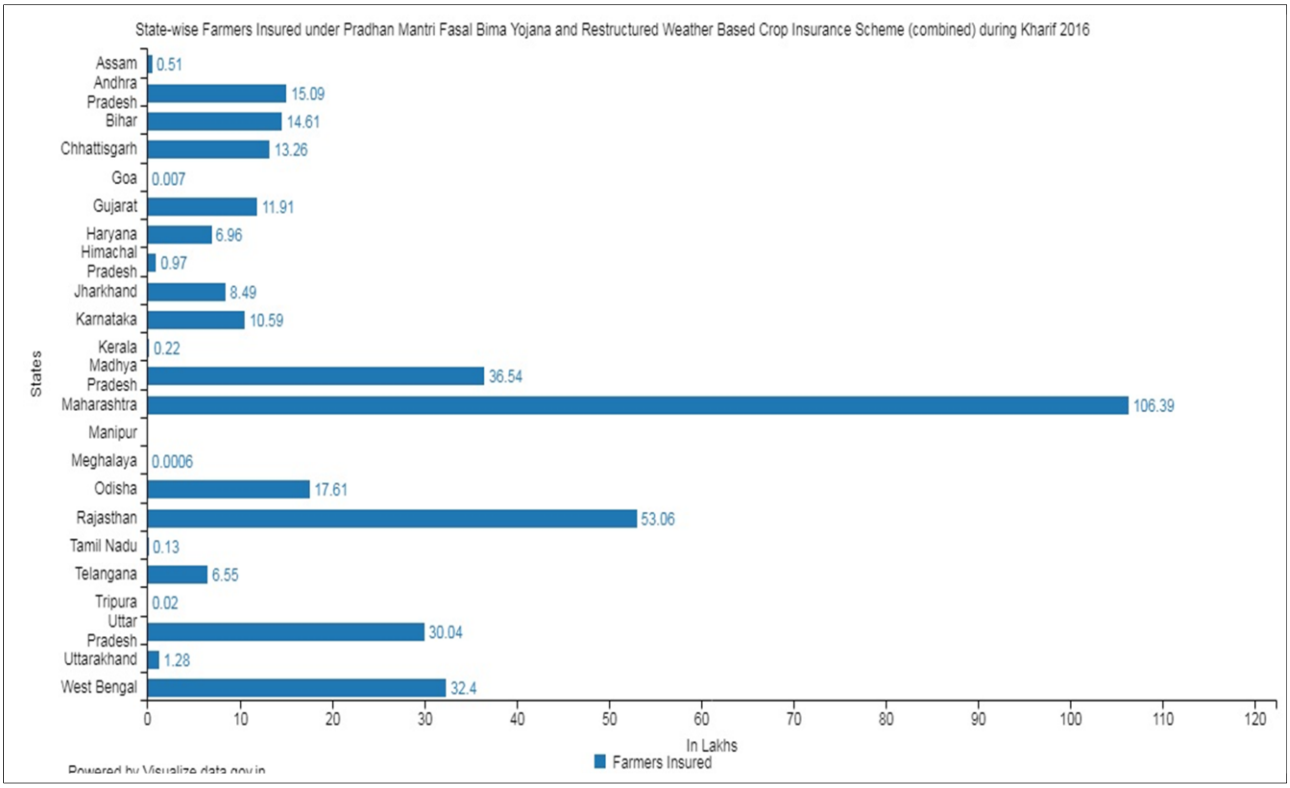
the existence of regional disparities, especially state wise differences, in the acceptance of various agriculture insurance schemes. This may be due to the changes in the cropping patterns, farmer's perceptions, etc. Among the states in India, Kerala stands out with very low crop insurance coverage. The percentage of farmers insured in Kerala was only a little above 4 per cent in 2013. With respect to the percentage of area cultivated insured, the situation is abysmally low. It was just about 2 per cent. Kerala has recorded only meagre farmer enrolments in the PMFBY scheme also. The total gross area sown insured is less than 3% and it constitutes only about 10% of total farmer population in Kerala.

Fig:1.2 State –wise coverage of farmers under PMFBY and WBCIS(combined) during Kharif 2016



Source: visualize.data.gov.in

The lower coverage of crop insurance in Kerala, when looked against the backdrop of Kerala's agriculture is quite interesting. Though the share of agriculture in Kerala's SP decline over the years,more than one third of the farmers still engage in agricuktural an allied activities. Notably, when the newer crop insurance schemes like MNAIS, PMFBY, etc. claiming themselves as being more farmer friendly are introduced, Kerala farmers shows an aversion towards these schemes too.

Compared to all India, Kerala's agriculture is less mechanised. The state depends heavily on nature for its agriculture. The state is also noted for small size of land holdings. Despite such features the lukewarm response to agriculture insurance in Kerala is quite intriguing. Yet another noteworthy aspect in this regard is that In India, crop insurance schemes are mandatory for farmers who are taking short-term crop loan (loanee farmers). But it is voluntary for all other farmers (non loanee farmers). The premium amount is deducted from the loan amount for loanee farmers, and claim, if any, is adjusted against the loan amount. The non-loanee farmers, pay premium from their pocket, and receive the claim amount if crop loss is recognized. Despite poor agriculture performance, the loan intake for agriculture purpose is quite high in Kerala. The poor coverage of crop insurance despite high incidence of agriculture loans makes Kerala situation further striking.

Given such favourable factors for agriculture insurance coverage in the state, the low penetration of this in the state is worth to be probed. The present study is a modest attempt on that line. It purports to examine why it is happening so? Whether it is due to the lack of proper awareness, high premium rates, delays in claim settlement, non-coverage of all crops, etc. of the existing schemes? Or is it due to institutional and other supply constraints?

3. OBJECTIVES

1) To analyse the extent of the coverage of crop insurance schemes in Kerala.
2) To identify the supply and demand constraints in the in the growth of crop insurance schemes in Kerala.
3) To make suggestions for better implementation of crop insurance schemes.

4. MATERIALS AND METHODS

The study uses both primary and secondary data. Secondary data of different agricultural statistics of crop insurance schemes is obtained from the websites of Agricultural Insurance Company (AIC), Department of Agriculture, Corporation and Farmers Welfare. Data is also obtained from Economic Survey, Annual Reports of AIC, Reports of Krishi Bhavans, etc.

Data on the farmer's perceptions regarding the crop insurance schemes, their awareness and the level of participation, institutional constraints etc. are obtained by conducting a primary level survey with a structured questionnaire and personal interview method. The survey is carried out in the Manimala Panchayath of Kottayam district. The list of farmers, total gross area sown, farmer's enrolment in crop insurance schemes, crops insured, etc. are collected from the Krishi Bhavans of the Panchayath. From that a sample of 70 farmers are chosen. Out of that 35 belong to the crop insured category and the other 35 of the non-insured category. Simple statistical tools like ratios, percentages, averages, pie charts, etc. are used to analyse the data. Chi square tests were used to check the association between variables while Garret ranking technique was also employed for ranking the farmers preferences.

5. RESULTS AND DISCUSSION

- Only two third of the total farmers are aware about various crop insurance schemes.
- The major sources which provide information regarding the crop insurance schemes to the farmers are government advertisements on crop insurance, Krishi Bhavan offices, Panchayath offices and friends.
- 30% of the non-insured farmers remarked the reason behind their non-enrolment in these schemes as unawareness.
- Using Pearson chi square test researcher found that there exist an association between the enrolment in the crop insurance schemes and the awareness on these schemes.
- The Pearson chi square test establishes an association between agricultural credit and crop insurance enrolment.
- About 55% of the farmer respondents have experienced crop loss due to various reasons and majority of them compensated crop less by sale of assets or relying on various government assistance for the same.
- By analysing the recorded observations of the non-insured farmer respondents we came to know that the major reasons for their non-participation are non-satisfaction with the crop coverage, complex documentation, claim settlement delays, lack of premium paying capacity, dissatisfaction in the indemnity level and the service provided.
- The major factors motivated farmers to enrol in crop insurance schemes are financial security, bank compulsion, good experience from other insured farmers etc.
- The preferred time period for the premium payment is annually by majority of the respondents.
- The major reasons for the dissatisfaction of crop insurance schemes among the insured farmers are high premium rates, delays in compensation payment, less coverage of both crops and risks, non-voluntarily of the schemes , institutional problems in its implementation ,low payment ,etc. and majority of the farmers are not satisfied with the overall performance of the crop insurance schemes. Garret ranking test results shows that high premium rates and less crop coverage are the major issues with the schemes
- By the survey we hardly find any evidence of adverse selection or moral hazard related to crop insurance business like decreased use of fertilizers or manures, not carrying out any technological modifications, etc.
- The major suggestions put forward by the farmer respondents to make the scheme more viable are widen crop coverage, quick claim settlement, making the scheme voluntarily, reduce premium etc.

6. SUGGESTIONS

- In the present study it is found that a large part of farmers are unaware of various crop insurance schemes which lead to their poor participation in these schemes. Hence it is suggested that the insurance companies and government should take necessary steps to improve the level of awareness like various programmes or campaigns to educate the farmers and create awareness among the schemes.

- The major reasons for the dissatisfaction of farmers towards these schemes can be seen in matters like premium rates, claim settlements, compulsive nature of the schemes, indemnity level etc. Hence it is suggested that the government and banks should be given high concentration on these aspects in order to improve the performance of crop insurance.

- The adoption of modern technologies to assess crop loss damage may be enhanced for the successful working of the scheme.

- Incentives like no claim bonus can be given to the insured farmers so as to sustain them within the sphere of crop insurance even if there has not occurred any crop loss.

- Various technological solutions like Kissan Call Centres, mobile apps, voice blast, SMS etc. can be used to raise the awareness of farmers about the insurance products. Also several web portals and mobile apps that have 24*7 access can be used to ensure the ease of registration, payment of premium etc.

- State wise disparities in the crop insurance performance calls for a state specific rules and regulations for the same which suitably fits its farmers.

7. CONCLUSION

Despite various schemes launched from time to time in the country agriculture insurance is unknown to majority of farmers and the coverage in terms of area, number of farmers and value of agricultural output is very small. Coverage of farmers under the schemes was very low compared to the population of farmers as per Census 2011. Further, coverage of non-loanee farmers was negligible. The state level disparity is also an issue of concern. Compared to other states in India, the participation in these schemes in Kerala is very low. Unless the programme is restructured carefully to make it viable, the prospects of its future expansion to include and impact more farmers are remote. This requires renewed efforts by Government in terms of designing appropriate mechanisms and providing financial support for agricultural insurance. Providing similar help to private sector insurers would help in increasing insurance coverage and in improving viability of the insurance schemes over time. Various measures to make the scheme easily understood by the farmers should be given prime importance. Also the significance of creating awareness among farmers on the need and benefits of these schemes through various programmes should not be discarded.

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