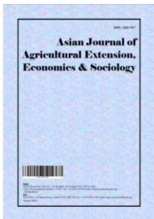

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# Insurance Behaviour of Insured Farmers under Pradhan Mantri Fasal Bima Yojna (PMFBY) in Central India

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***Authors' contributions***

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## ABSTRACT

To identify insurance behaviour of insured farmer's, the study was carried out by Agro Economic Research Centre, JNKVV, Jabalpur. Umaria, Jabalpur and Sagar districts have been selected randomly under the ICICI-Lombard, AIC and HDFC-ERGO were found to be major implementing agencies of PMFBY in Madhya Pradesh. From each agency 40 respondents were selected from the respective districts constituting sample size of 120 respondents. District Cooperative Bank was found to be the main implementing bank in the area under study. 90 per cent of the HHS availed crop insurance facility under PMFBY. More than 80 per cent HHs were found to be aware of PMFBY and the main source of awareness was found to be TV/Newspaper and relatives/friends (>35%) followed by government awareness programmes (>20%) and insurance companies (>10%) among HHs. The major events of losses were found to be yield loss (36.67%) followed by prevented sowing/planting due to deficit rainfall or adverse weather (3.33%). The compensation secured in Kharif was found to be more in case of loanee insured (Rs. 8236/-) as compared to non-loanee insured (Rs. 6379/-) HHs. The majority of HHs did not know the complete feature of PMFBY in

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totality and opined that this is the same as the previous scheme (90%). It was also observed that 44 and 66 per cent of loanee and non-loanee insured HHs used to inform the event of losses to bank officials (>35%) and local government officials (>57%).

*Keywords: ICICI-Lombard; AIC; HDFC-ERGO; PMFBY; LI & NLI and compensation.*

## 1. INTRODUCTION

Agriculture is a risky prospect, wherever it is subject to vagaries of nature like flood, drought and cyclone [1]. Crop insurance or agricultural insurance is a mechanism through which farmers can protect themselves for loss or destruction of their crop due to events like flood, drought, pests and diseases or as a result of other natural disasters [2]. More precisely, their vulnerability to climate change risks and /or unwillingness to involve in high-risk activities that promise higher returns, and their inability to reside in disaster safe locations [3]. The Commission for Agriculture Costs and Prices (CACP) reckons the premiums to drop to 3.5% of sum insured (SI) if 50% of India's gross cropped area is insured [4].

Crop insurance is recognised to be a basic instrument for maintaining stability in farm income, through promoting technology, encouraging investment, and increasing credit flow in the agricultural sector. The basic principle underlying crop insurance is that the loss incurred by a few is shared among others in an area, engaged in a similar activity. Also, losses incurred in bad years are compensated for resource accumulated in good years [5].

Susceptibility of agriculture to these disasters is compounded by the outbreak of epidemics and man-made disasters such as fire, sale of spurious seeds, fertilizers and pesticides, price crashes, etc. All these events severely affect farmers through loss in production and farm income and are beyond the control of farmers. With the growing commercialization of agriculture, the magnitude of loss due to unfavourable eventualities has increased [6].

The new scheme is different from earlier schemes on the account of the following: It is open to all farmers but NOT mandatory to anyone. It is optional for loanee as well as non-loanee farmers. It has so far lowest premium. The existing premium rates vary in between 2.5% and 3.5%respectively for Kharif crops and1.5% for rabi crops respectively-but the coverage was capped, meaning farmers could, at best, recover a fraction of their farming losses. The farmers' premium has been kept at a maximum of 2 per cent for food grains and up to 5 per cent for annual commercial horticulture crops [7].

Government of India has recently approved Pradhan Mantri Fasal Bima Yojana (PMFBY) which would replace the existing schemes of National Agricultural Insurance Scheme (NAIS) & Modified National Agricultural Insurance Scheme (MNAIS) from Kharif 2016. PMFBY would be available to the farmers at very low rates of premium which would be up to a maximum of 1.5% for Rabi and up to 2% for Kharif for Food crops, Pulses and Oilseeds and up to 5% for Annual Horticulture/ Commercial Crops. This scheme would provide insurance cover for all stages of the crop cycle including post-harvest risks in specified instances [8,9].

All farmers including sharecroppers and tenant farmers growing the notified crops in the notified areas are eligible for coverage. However, farmers should have an interest in the notified/ insured crops. The non-loanee farmers are required to submit necessary documentary evidence of land records prevailing in the State (Records of Right (RoR), Land possession Certificate (LPC) etc.) and/ or applicable contract/ agreement details/ other documents notified/ permitted by concerned State Government (in case of sharecroppers/ tenant farmers). All farmers availing Seasonal Agricultural Operations (SAO) loans from Financial Institutions (i.e. loanee farmers) for the notified crop(s) would be covered compulsorily. The Scheme would be optional for the non-loanee farmers [10].

Thus, PMFBY is an important and ambitious scheme aimed at ensuring stable incomes for farmers in the event of agrarian uncertainties. It is one of the largest experiments of its kind in the world given its potential to benefit millions of small and poor farmers. Yet many bottlenecks may be experienced in its successful implementation, such as a) farmer awareness of insurance benefits, b) farmer understanding of the insurance process, c) willingness to pay the premiums, d) access to insurance providers, e) timely receipt of insurance claims, and f) willingness of the state governments to share the burden of subsidy on premium. As much as actuarial risks matter for the insurance companies, farm sector presents unique challenges that differ from general insurance products in terms of seasonality, climatic vagaries and high sunk investments. Hence transaction costs of managing a crop insurance scheme could become very high, requiring a different kind of governance mechanisms. In this context, the study will a) assess the factors influencing the willingness-to-pay (WTP) for reliable crop insurance, b) analyze the factors that influence insurance uptake and c) suggest appropriate governance mechanisms needed for ensuring increased uptake and efficient disbursements. The scheme is implemented in all the State of the country. How well the Scheme is being implemented by the implementing agencies and how well is the crop notification, information flows and disbursements of the scheme in Madhya Pradesh are the matter of intend study hence this study has been undertaken in Madhya Pradesh with following specific objectives, To identify insurance behaviour of insured farmers

## 2. MATERIALS AND METHOD

The study confined to all the districts of Madhya Pradesh. A list of all the farmers benefited under PMFBY has been prepared and classified under low, moderate and high uptake district by using the Mean ± Standard deviation technique according to the number of farmers benefitted. Out of 51 districts in the State, 5, 38 and 8 falls under low moderate and high uptake districts. Umaria, Jabalpur and Sagar districts have been selected randomly under ICICI-Lombard, AIC of India and HDFC-ERGO respectively and from each agency, 40 respondents were selected from the respective districts constituting sample size of 120 respondents. A District Cooperative Bank of each district selected purposively for the study. A branch having the maximum number of beneficiaries has also been selected for the study. Thus, Umaria Sehora and Bhagwanganj branches of District Cooperative Bank of Umaria, Jabalpur and Sagar districts respectively have been selected for the study. List of all the beneficiaries of these branches has been prepared separately and 30 beneficiaries/loanee insured in each branch were selected for the study Further, 10 non-loanee insured were selected in the vicinity of selected branches to draw meaningful conclusion Thus, 90 and 30 loanee and non Loanee respondents were selected for the study in Madhya Pradesh. The primary data have been collected from sample respondent for the year 2016-17.

## 3. RESULTS AND DISCUSSION

The enrolment and awareness, insurance details, experiences with the PMFBY, implementation of the scheme across different categories of households (HHs) such as loanee insured (LI) and non-loanee insured (NLI).

### 3.1 Enrolment and Awareness

The enrolment and awareness about PMFBY concerning LI and NLI are judged using different parameters and presented in Table 1.

The data showed that more than 90 per cent HHs were found to hear about the scheme out of which 80 per cent were found to insured under PMFBY as LI and NLI HHs. Almost 10 per cent HHs were found to avail other insurance schemes i.e. cattle insurance etc. The voluntary enrolment was found to be 64 per cent in LI and 100 per cent in NLI. The Major Source of awareness was found to be TV/Newspaper and

**Table 1. Enrolment and awareness of PMFBY**

| Particulars | | Loanee Insured (n=90) | Non-Loanee Insured (n=30) |
|---|---|---|---|
| Heard (yes) | | 82(91.00) | 27(90.00) |
| Availed other insurance scheme (yes) | | 8(9.0) | 3(10.0) |
| Insured (yes) | | 73(81.11) | 25(83.33) |
| Voluntary enrolled (yes) | | 58(64.44) | 30(100.00) |
| Source of awareness | Govt. awareness programs | 29(32.22) | 6(20.00) |
| | Insurance Company/Agent | 9(10.00) | 4(13.33) |
| | Panchayat | 10(11.11) | 2(6.67) |
| | Villagers | 11(12.22) | 7(23.33) |
| | Others (TV/Newspaper /relatives and friends) | 31(34.44) | 11(36.67) |

*Figures in brackets are percentages to sampled farmers*

relatives/friends (34.44 & 36.67%) followed by govt. awareness programs (32.22 & 20.0%), villagers (12.22 & 23.33%) insurance company/ agent, (10.0 & 13.33%), panchayat (11.11 & 6.67%) in case of LI and NLI respectively.

### 3.2 Insurance Details about HH

The insurance details related to the insurance agency, premiums, implementing bank, the event of losses and compensation secured across LI and NLI is presented in table 2 depicts that AIC, HDFC and ICICI Lombard were found to be implementing agencies in a different district in the State. LI and NLI got insurance from all the agencies in equal proportion i.e. 33.33 per cent from each agency. The premium during Kharif 2016 (Rs.2426 & 2028) and Rabi 2017 (Rs.1819 & 1521) was found to be paid by the HH in case of LI and NLI. The implementing bank was District Cooperative Bank.

The event of losses due to adverse weather reported by 3.33 per cent LI while yield losses were reported by 36.67 per cent HH in both cases and the compensation of Rs. 8236 & 6379 was secured by the LI and NLI respectively for Kharif 2016.

### 3.3 Experiences with the PMFBY

The experience of LI and NLI with PMFBY was recorded through their opinion and whom they inform in case of loss and presented in table 3. That in case of LI, 91.11 per cent HHs were reported that the present scheme is similar to the previous scheme and only 9.89 per cent opined that it is better than the schemes running before.

The majority of NLI reported that they never insured their crops earlier (83.33%), 13.33 per cent worse than earlier scheme and only 3.33 per cent did not say about this. It was found that 44.44 per cent LI used to inform the event of loss to local Govt. officials (57.50%) & bank officials (42.50%) while 66.67 per cent NLI informed about the event of loss to local Govt. official (65.0%) & bank officials (35.0%).

### 3.4 Implementation of the Scheme

The time is taken by the respondents to inform the officials in case of the event of loss, information on the visit of CCE, the role of panchayat and expectation of the scheme across LI and NLI is presented in Table 4.

Out of total LI and NLI HHs the event of loss found to be reported within 15 days (52.50 & 60.0%), within 48 hours (27.50 & 30%) and 20 & 10 per cent informed within a month in case of NLI. The 5.56 and 10 LI and NLI reported that their farms were visited during CCE and they were found aware about yield assessment of CCE in their villages. The role of panchayat during the process of claim was recognized by 60 and 66.67 per cent, LI and NLI, respectively. Only 10 per cent LI and 23.3 per cent NLI reported that they satisfied with the implementation of PMFBY. The most of the LI and NLI respondents reported that scheme requires to be improvised by distributing compensation on timely (35.56 & 30.0%), compensation is required

**Table 2. Insurance details about LI and NLI (per HH)**

| Particulars | | Loanee Insured (n=90) | Non-Loanee Insured (n=30) |
|---|---|---|---|
| Implementing agency | AIC | 30(33.33) | 10(33.33) |
| | HDFC | 30(33.33) | 10(33.33) |
| | ICICI Lombard | 30(33.33) | 10(33.33) |
| Premiums in Rs. (90HH) | Kharif 2016 | 2426 | 2028 |
| | Rabi 2017 | 1819 | 1521 |
| Implementing bank - District | Cop. Bank | 90(100) | 30(100) |
| Event of losses | Prevented sowing/planting due to deficit rainfall or adverse weather | 3(3.33) | 0(0.00) |
| | Yield loss | 33(36.67) | 11(36.67) |
| Compensation Secured (Rs.) in Kharif 2016 (LI-36 & NLI-11 HH) | | 8236 | 6379 |

*Figures in brackets are percentages to sampled farmers*

**Table 3. Experiences of the LI and NLI with the PMFBY**

| Particulars | | Loanee Insured (n=90) | Non-Loanee Insured (n=30) |
|---|---|---|---|
| Opinion | Better than earlier schemes | 8(8.99) | 0(0.00) |
| | Worse than the earlier scheme | 0(0.00) | 4(13.33) |
| | Same as another scheme | 82(91.11) | 0(0.00) |
| | Never insured earlier | 0(0.00) | 25(83.33) |
| | Cannot say | 0(0.00) | 1(3.33) |
| Event of loss did you inform any authority (Yes) | | 40(44.44) | 20(66.67) |
| Whom did you inform | Bank officials | 17(42.50) | 7(35.00) |
| | Local Govt. official | 23(57.50) | 13(65.00) |

*Figures in brackets are percentages to sampled farmers*

**Table 4. Implementation of PMFBY in the study area**

| Particular | | Loanee Insured n=(90) | Non-Loanee Insured (n=30) |
|---|---|---|---|
| Event of loss did you inform how many days | Within 48 hours | 11(27.50) | 6(30.00) |
| | Within 15 days | 21(52.50) | 12(60.00) |
| | Within 1 month | 8(20.00) | 2(10.00) |
| Did anyone visit your farm during CCE (Yes) | | 5(5.56) | 3(10.00) |
| Are you aware of any yield assessment of CCE taking place in the village (Yes) | | 5(5.56) | 3(10.00) |
| Role of panchayat in process of claims (Yes) | | 40(60.00) | 20(66.67) |
| Are you satisfied with the implementation PMFBY (Yes) | | 9(10.00) | 7(23.30) |
| Are you Satisfied with PMFBY's Implementation | Premium should be lower | 20(22.22) | 9(30.00) |
| | Less time to finish paperwork | 11(12.22) | 3(10.00) |
| | Higher compensation | 22(24.44) | 9(30.00) |
| | Timely compensation | 32(35.56) | 9(30.00) |
| | Others | 5(5.56) | 0(0.00) |

*Figures in brackets are percentages to sampled farmers*

to be reduced (24.44 & 30.0%), premium should be lower (22.22 & 30.0%), time to finish paperwork should be increased (12.22 & 10.0%) and others (5.56 & 0.0%).

## 4. CONCLUSION

It concluded from the above findings that only 10 per cent of loanee and 23.3 per cent of non-loanee HHs were found to be satisfied with the implementation of PMFBY in the area under study and want timely & higher compensation; less time to finish paperwork and premium should be lower. Only 90 (non-loanee) to 95 (loanee) per cent HHs were not found to be aware of yield assessment of CCE taking place in their village and also were not aware of any visit on their farm. Due to the Pradhan Mantri Fasal, Bima Yojna was not implemented with its all aspects in the State because still crop area being notified by the Govt. of Madhya Pradesh in State Gadget, which is not covering all the crops grown by the cultivators in their field. This makes major hindrance in introducing new crops, which may be more profitable over the existing traditional crops. One should feel secure for trying an innovation in the field of agriculture looking to the competitive world in the present WTO era. The farmer not well acquainted with the amount of premium debited from his crop loan account. It has been practised that the premium debited for the area owned by the farmers but not for the area allocated under the crop insured. More awareness should be generated among the farmers' community /stakeholders of the PMFBY for their better understanding of the scheme in totality.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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