Pradhan Mantri
Fasal Bima Yojana

A Study on

Evaluation of Mega Awareness Campaign of Pradhan Mantri Fasal Bima Yojana (PMFBY)

MANAGE
मैनेज

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PREFACE

The present study entitled "Evaluation of Mega Awareness Campaign of Prime Minister Fasal Bima Yojana" is a part of all India coordinated study being conducted in nineteen states. It was undertaken at the instance of IEC Advisory Committee of PMFBY, Ministry of Agriculture & Farmers Welfare, Government of India, New Delhi. The Pradhan Mantri Fasal Bima Yojana, popularly known as the PMFBY was announced by the central government as a risk mitigating mechanism for the farming community in India. PMFBY is a technology based crop insurance scheme launched on 13th January 2016 by Government of India to benefit farmers in a direct manner through Direct Benefit Transfer (DBT). Under the scheme, the farmers will receive monetary assistance compensating crop losses. The scheme has been designed to assist the farmers in getting the policy claims settled quickly.

The IEC division has been popularising the Scheme by organising the Crop Insurance Week and Mega Awareness Campaigns both in *rabi and kharif seasons* with the help of various stake holders. This study is an attempt to evaluate the country wide Mega Awareness Campaigns organised by Ministry of agriculture in terms of awareness levels, enrolment and role of mass media campaigns and the issues faced by the farmers in accessing the insurance. Policy measures for improving its functioning have been suggested based on the findings of the study and field observations. Based on the availability of the data, 1900 farmers were from 19 States and 38 districts were surveyed using well designed pre tested questionnaire.

Our study shows that there is a lot of improvement in awareness levels after conducting the post Rabi mega awareness campaign (during December 2022) by the Government with the help of various stakeholders. Therefore, it is important to emphasize on increasing the demand for crop insurance product by creating more awareness. It is clear that there are possible institutional channels through which farmers can gain knowledge about crop insurance which include multiple agencies such as extension officers, banks, friends, and relatives, social media, farmer groups, village level workers etc. Based on the findings of the study and field observations, appropriate strategies have been suggested in this document.

The Monitoring and Evaluation Centre of MANAGE undertook this study. The staff members of the Centre engaged in the study deserves appreciation in bringing out this volume for wider circulation. The findings of the study, it is hoped, will be useful for efficient implementation of the scheme for the betterment of farmers in the country.

(P. Chandrashekara)
Director General

Executive Summary

Agriculture in India is highly susceptible to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season. There are several kinds of risks and uncertainty faced by the farmers in India like weather related, yield loss, calamities, floods etc. Thus, access to crop insurance encourages farmers to shift investment on inputs away from low-yield and low-volatility crops to riskier ones. In the light of this background Prime Minister Fasal Bima Yojana (PMFBY) Scheme was started in the year 2016. It provides insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests and diseases.

Ministry of Agriculture & Farmers' Welfare observes Crop Insurance Week twice every year. On this week a mass-awareness campaign 'Crop Insurance Week/Fasal Bima Saptah' is organized at the nationwide by the Ministry of Agriculture and Farmers Welfare launched from *Kharif* 2021 onwards. Campaign is to increase farmers' enrolment and create massive awareness on crop insurance using 360 degree means. A study was conducted to evaluate the awareness campaign by the

1.4 Objectives of the Study:

1. To measure the level of awareness among the farmers about the PMFBY
2. To study the impact of awareness camps on the level of awareness and enrolment about the PMFBY
3. To suggest measures to improve its performance of PMFBY in terms of awareness and enrolment

The study covers 19 States and Union Territories for which the data of farmers enrolled with PMFBY was available. Multistage stratified random cum purposive sampling cum proportional sampling technique has been used in selection of States, Districts and farmers. Nineteen States where PMFBY enrolment is prevalent have been selected for the study. From each State, two districts were selected for the study i.e., one district having high uptake percentage of enrolment in PMFBY, and other one low uptake of insured farmers. From each district, 50 farmers are selected at random and from a total 38 districts from nineteen States, the total farmers selected randomly was 1900.

In order to analyse the data and to draw meaningful conclusions, various analytical tools such as

- Frequency distribution
- Percentage
- Mean
- Standard deviation
- Multivariate Analysis

Findings of the study revealed that the overall average age of sample farmers is in the range of 41 to 57. The overall average age for all 1900 sample farmers is 48 years and the highest number of farmers are found in the age group of 40 years to 59 years (52%) followed by less than by 40 Age Group (29%) and above 60 years (21%).

In a sample of 1900 farmers, 86 per cent of the sample farmers are male with an exception of Kerala and Northeastern States where higher proportion of female sample respondents were found (Manipur, Sikkim, Meghalaya, Assam).

As far as the literacy level of the sample farmers is concerned, only 19 per cent of the overall households at all India level are illiterate. The literacy profile at all India level is also quite impressive with 49 per cent of them having completed 10^{th} class followed by intermediate (14%), graduation (12%) and only three per cent are post graduates. This shows that 81 per cent of the sample farmers are educated at all India level.

The information on Social Category of the sample respondents of the sample of the farm households across all States by social groups revealed that about 38 per cent of sample farmers belong to the OBC category and 36 per cent belongs to the general category. SC category constitutes less than 10 per cent and on the contrary, ST category constitutes 18 per cent. Social category specific programmes may be designed to create awareness about PMFBY.

Land holding pattern revealed that about 82 per cent of sample farmers are small and marginal in our study. Almost similar status is observed in all States only with the exception of Rajasthan and Haryana where higher proportion of were medium and larger farmers.

The cropping pattern of the sample respondents revealed that paddy is the main crop of sample farmers in *Kharif* season in almost all States. Other important *Kharif* crops are sugarcane, vegetables and coconut. Major *rabi* crops cultivated by the sample farmers include maize, wheat, mustard and vegetables. Creation of awareness before *kharif* or *rabi* season may influence the decision of the farmers go to for crops empanelled for crop insurance as apart of risk mitigation mechanism

An attempt was made to elicit the sources of income of the farmers revealed that most important source of income is from farming activity all the selected States. About 36 per cent of the farmers are earning income through livestock also. More than 50 per cent of sample farmers are earning income through livestock in the States such as Himachal Pradesh, Haryana, Sikkim, Maharashtra and Assam. Only 15 per cent of the sample farmers are earning income through wages and major proportion is found in the case of Manipur and Assam.

The level of awareness depends on many factors. Social participation is one of them. The analysis revealed that out of 1900 sample farmers, only 766 farmers are members of some social organisation or the other which means only 40 per cent across 19 selected States are part of social organisations. The pattern of social participation may be kept as a basis for designing the State specific strategies for creating awareness about the PMFBY scheme.

The mass media participation pattern results revealed that about 59 per cent of the sample farmers had medium level of exposure followed by 22 per cent of farmers with high level of exposure and 19 percent of them had low level of mass media exposure. Majority of the farmers possessed various media sources like newspaper, magazines, television and radio sets, and they were frequently using these media sources for gathering agricultural information. Television among the Mass Media sources was the foremost source of information for agricultural purposes used by 33 per cent of respondents at all India level (408 farmers out of 1900 farmers). Gram Sabha as a source of information was used by 27 percent of the farmers. Social Media through Mobile phone (26.6%) and Kisan Call Centre (21.6%) occupied third and fourth position followed by Radio (21.5%), and Farm Magazines and News Paper (17%). It is pertinent to note that in spite of advent of ICT, Television and Radio are the important source of information. Hence, focus may be laid on these sources for creating awareness about PMFBY.

Information plays a crucial role in enhancing the awareness levels of a stakeholders in a particular sector. It is true with agriculture sector as well. The information flow from informal sources such as progressive farmers, and friend and relatives is 29 and 30 per cent respectively. Among the formal sources, the most important source is found to be cooperatives, banks and panchayats with 27, 20 and 21 per cent respectively. The contribution of IEC Vans, regulated markets and NGOs in bringing awareness levels is found to be very low. Farmers rely mainly on personal experiences and knowledge as well as interactions with informal peer groups (e.g., relatives, trusted input dealers and local retailers) for making important farming decisions.

The analysis of level of awareness before campaign revealed that out of 1900 farmers, 1325 farmers were aware about PMFBY before the campaign, means 70 per cent are aware of PMFBY across all 19 selected States before *rabi* campaign of 2022. Due to the concerted efforts of the Government in creating awareness on PMFBY

since 2016, the awareness levels before the *rabi* campaign of 2022 is found out to be at 70 per cent at all India level.

However, this number has increased to 1550 (82%) after the mega awareness campaign conducted during the *rabi* in the year 2022. **Thus, there is a significant increase in awareness levels by 12 per cent on account of mega awareness campaign organised by Government of India with the involvement of various stakeholders in its implementation.** To put it in nutshell, awareness levels have gone up in all the selected States of India due to mega awareness campaigns organised country wide.

Socio economic factors such as age, education, caste and size of holding play a very important role in innovations and adopting the technologies in agriculture. The analysis, in this regard found that at All India level, the highest level of awareness (48%) is found in the age group of 40 to 59 years followed by 34% in the age group of below 40 and 18% awareness is observed among sample farmers in the age group of above 60. The awareness levels are the highest (41%) among the OBC category farmers followed by OC with 27% at all India level. Least awareness levels are found in the case of SC category with 9% and ST with 18%. Across all States OBC and OC Category are well aware of PMFBY. There is a need to increase awareness levels by bringing specially focused programs for SC and ST category of farmers.

An analysis of field data on enrolment and status of claims effected shows that out of 1900 farmers from 19 selected States of India, 45 percent of the farmers have enrolled in PMFBY before the *rabi* (849 farmers) campaign. Of these total 849 enrolled farmers, only 232 (27.6 % of total enrolled farmers) farmers have claimed the insurance amount due to crop damage on account of various reasons

The number of farmers enrolled in PMFBY during Pre and Post Campaign increased from 734 to 761 with an increase of 63 farmers (8%). However, it is also evident from the table that for some of the States, there is a fall or same enrolment of farmers in crop insurance from pre campaign to post campaign. This trend is mainly on account of fewer crops grown in rabi season which may not be an empanelled

crops for PMFBY. This has nothing to do with campaign conducted during rabi season of the year 2023.

The State-wise cross tab analysis between awareness levels and enrolled revealed that in all the selected States, all the sample farmers who have enrolled in PMFBY is having with 100 percent awareness and not found any single case where without awareness the enrolment has happened.

Despite its several benefits, restructuring of insurance products to accommodate loss to agricultural crops from both covariate and idiosyncratic risks and subsidised to a great extent, still the scheme is suffering from some problems from the view point of farmers. In the study, majority of the sample farmers when interviewed expressed few problems. About 74 per cent sample farmers expressed the reason behind less enrolment is not having a bank nearest to their village and cumbersome procedure of paying premium. About 46 per cent of the farmers are not aware of the scheme, and about 28 percent of farmers having bad experience with the PMFBY and 23 percent of them heard bad experience of other farmers in the village.

The results of this evaluation study corroborate our findings from the field observations. An analysis of crosstab indicated that all the variables have significant t ratios which means all variables independently and also together are important in raising awareness levels of PMFBY. With regard to the advice or media exposure, bringing more farmers under the purview of these services should prove beneficial for improving awareness. The coefficient for training and technical advice revealed that variation in locational characteristics around the neighbourhood of a farmer plays an important role in improving awareness.

As expected, we found that a farm household's access to formal loans is an important determinant of awareness. Short-term crop credit in India (and in many other developing countries) is linked with crop insurance. However, all farmers taking a crop loan may not be insured, because the type of loan may be different and/or crop insurance may not be sold in the area. Therefore, while not all farmers

taking loans are insured and thus there is a high likelihood that they are aware about it when they take any type of institutional loan.

The effect of a higher level of education is positive on awareness about crop insurance. Educated farmers are likely to find it easier to understand the operational nature of an insurance scheme. In our study, we found the estimates for educational attainment to be strongly positive and increasing with level of education. Similarly, we found that the coefficients for social group are positively correlated with awareness. Most socially advantaged category being aware about crop insurance are almost twice that of a farmer from the most socially disadvantaged category. Households with larger land size are also more likely to be aware than those with less land.

Our study shows that there is a lot of improvement in the awareness levels after conducting the *Rabi* mega awareness campaign by the Government of India with the help of various stakeholders. Therefore, it is important to emphasize that to increase demand insurance product, more awareness-building is necessary. From our study it is clear that there are possible institutional channels through which farmers can gain knowledge about crop insurance which include multiple agencies such as extension officers, banks, friends, and relatives, social media, farm groups, village level workers etc. Based on the findings of the study and field observations, appropriate strategies have been suggested in the following section.

1. It is revealed from the findings that the highest number of farmers are found in the age group of 40 years to 59 years. In the agriculture sector, though the productive age is less than 40 years, the category of farmers in the age group of 40-59 are in a better position to absorb the awareness due to their experience. Hence, the awareness programmes of PMFBY may focus on both the age group (< 40 years and 40-59 years) for wider reach and higher level of awareness.
2. On account of higher proportion of the female farmers among the sample respondents in the States of Manipur Kerala and Sikkim, the campaign strategies for creating an awareness about the PMFBY may focus on female farmers and educating them about the benefits of the scheme and to persuade them to get coverage under PMFBY.

3. Higher proportion of illiterate farmers are observed in the case of Madhya Pradesh, Rajasthan, Assam, Manipur and Uttara Pradesh. For the States where literacy levels are low, appropriate means of spreading awareness such as non-literary means of creation of awareness such as posters, nukkad nataks, hoardings, display on buses and public places may be used to create level of awareness among them.

4. Creation of awareness before *kharif* or *rabi* season may influence the decision of the farmers to go for crops empanelled for crops insurance as apart of risk mitigation mechanism. This strategy will help the farmers to cultivate remunerative crops involving higher risks due to coverage of these risks through insurance products.

5. The pattern of social participation may be kept as a basis for designing the State specific strategies for creating awareness about the PMFBY scheme. Say for example, SHGs in the State of Assam may be focussed as a unit of creating awareness. Likewise for cooperative as a means of creating awareness may be focussed. Based on the popular use, other social groups such as FPOs, NGOs, Raithu groups, CIGs, FIGs etc. may be effectively used.

6. Since, Television being a most important source of mass media communication for majority of the sample farmers, a flash advertisement during prime time programs and entertainment programs may be used to disseminate the information with regard to PMFBY. DD Kissan may be effectively used for this purpose. Other than television, the State specific strategies may be adopted depending on the major source of mass media (for eg. radio) respective States.

7. There is a diversity among the different sources and pattern of obtaining the information by the farmers from different sources. Hence, State specific Strategies should be framed for effective dissemination of information.

Farmers rely mainly on personal experiences and knowledge as well as interactions with informal peer groups (e.g., Fellow farmers, relatives, trusted input dealers and local retailers) for making important farming decisions. In some villages, farmers who are already benefited in such schemes also share their experiences. This boosts the confidence of other farmers to continue farming despite natural calamities like drought and flood. They are also motivated to adopt innovative and modern agricultural practices.

8. Entire process of the insurance scheme from application to claim settlement with Do's and Don'ts along with the benefits should be explained in detail to the farmers at village level which is not being done at present. Gram Panchyat members and office bearers may be an effective means in such cases.

9. Awareness camps and meetings may be organized at village or in a cluster of 2-3 villages for effective dissemination of information pertaining to the PMFBY scheme and to explain the entire process involved it.

10. The existing village level workers have to be efficiently utilized for improving the awareness levels and increasing enrolment of PMFBY. For eg. in Muzuffur Nagar District of Uttar Pradesh, Village level workers organise regular discussions at short intervals to motivate and create awareness for adopting the scheme.

11. Students of Agriculture colleges may be enlightened about the details of PMFBY and involve them to create awareness in nearby villages with some incentive, or as a part of the Rural Agricultural Work Experience (RAWE).

12. Customized Capacity building programmes and farmer fests at village level have to be organized to educate farmers on various aspects of the Scheme including the need for crop insurance, climatic conditions of the district, procedure of enrolment, nearby facilitation centres, etc.

13. Private players may be roped by providing incentives for creation of awareness about PMFBY on Public Private Partnership (PPP) mode. For example institutions like Nodal Training Institutes of Agri-clinics and Agri Business Centre (AC & ABC), Diploma in Agricultural Extension Services for Input Dealers (DAESI) may be entrusted the task of educate the farmers in a time bound exercise to cover the target area in a phased manner. NTIs can arrange sessions in the community halls / schools in a village covering 4-5 surrounding villages with the help of Extension officers / Gram Pradhans / prominent NGO's / FPO's / cooperatives / SHG's working in the area.

14. Motivating farmers to adopt PMFBY for risk coverage requires behavioural change. Generally, when the crop doesn't fail, farmers feel cheated as there is no return on premium paid and in such scenarios coverage gets reduced in the following year. In efforts to overcome this challenge, Premium could be reduced for subsequent purchases of crop insurance when there is no claim in a year. This could be on the pattern of no claim benefit as in case of car insurance.

15. Robust campaign of PMFBY Advertisements on social media and film bites may be taken up by the Implementing Agencies for wider reach of information crop insurance.

16. It is found that the spread of PMFBY scheme is more among the loanee farmers as the premium at source is deducted by the financial institutions. However, the crop insurance product purchase is not popular among non-loanee farmer. Wide coverage of non-loanee farmers under the scheme through creation of awareness using various means may be enhanced.

17. Audio system like Mike system at religious places in the villages may be extensively used for creating awareness about PMFBY scheme. This strategy may also be adopted during religious gatherings

18. On the lines of dissemination of information used during Covid-19 as ring tone, Phone calls ringtone (caller tune) for 10 during both *kharif* campaign and *rabi* campaign may be used.

19. Kissan Call Centres may be extensively used by placing an expert on crop insurance for about 10 days both *kharif* campaign and *rabi* campaign may be used to intensify its campaign before enrolment. Like-wise Information dissemination about PMFBY through post office may be popularised.

20. Since there is an availability of database on mobile numbers of farmers, Bulk messages in local language may be used as a means of dissemination of information on PMFBY scheme.

21. Regular orientation programs/ counselling camps should be arranged by banks and insurance authorities at village level to increase the awareness of crop insurance scheme.

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Chapter I

Introduction

1: Introduction:

Agriculture sector in India plays a very significant role in terms of its share to India's GDP (20%), providing livelihood support to a large number of people, and earning export revenue in the recent years. The growth in agriculture has been impressive in the recent years. However, the average income earned by farmers remained low in agriculture as compared to other sectors of the economy. Not only is the income level is low, but the income uncertainty of agricultural households is also very high on account of fluctuating market prices, weather vagarities and many other factors.

1.1: Types of Risk and Uncertainty

Agriculture in India is highly susceptible to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season. There are several kinds of risks and uncertainty faced by the farmers in India:

i) **Economic uncertainties**

- In general, farmers in most countries face differences in price for the inputs and outputs from what they might have anticipated at the time of preparing farm plan.

ii) **Biological uncertainties**

- Rain or storm, drought and also by increased incidence of pest and diseases may all affect the yield in agriculture directly or indirectly

iii) **Technological Uncertainties:**

- Technological improvement necessarily implies that the same level of input can now produce larger quantity of produce.

- The upward shift in the production function signifies that more output can be produced at each level of input after technological progress.
- This effect would-be due to the delayed operation of the law of diminishing marginal returns on account of use of technology.
- Thus, improvement of knowledge or technological progress, which is a continuous phenomenon, may render some techniques less efficient.

iv) **Production risk:**

- May arise due to uncertainty of weather conditions and other natural factors like pest, disease and nutrient availability and hence farmer is not able to predict precise yield

v) **Price or Market Risks**

- Input and output price volatility is important source of market risk in agriculture. Prices of agricultural commodities are extremely volatile.
- Output price variability originates from both endogenous and exogenous market shocks.

vi) **Financial & Credit risk:**

- The ways businesses finance their activities is a major concern for many economic enterprises and agriculture is no exception.
- Many agricultural production cycles stretch over long periods of time, and farmers need to anticipate expenses.
- Farmer will only be able to recuperate once the product is marketed.
- This leads to potential cash flow problems due to lack of access to insurance services, credit and the high cost of borrowing.
- These problems can be classified as financial risk.
- Insurance arrangements for crops and other agricultural activities are scanty in India

Farmers adopt various coping mechanisms to face such uncertainties arising out of adverse economic or climatic shocks. Working for longer hours, taking up employment in non-farming sectors, borrowing from formal or informal sources, keeping buffer stocks of grain, buying and selling bullocks, engaging in sharecropping, participating in informal insurance through cash transfer with relatives or other villagers, receiving remittances from migrants, engaging in certain marital arrangements, ritualised gift-giving, participating in contract farming, futures markets, etc., are some of the formal and informal risk-sharing mechanisms adopt by farmers (Dercon 2002; Fafchamps 1999 ; Morduch 1999).

However, many of the mechanisms mentioned in the paragraphs are risk-coping strategies rather than risk management strategies. Given the inadequacy of formal and informal risk-sharing mechanisms, policymakers in India have tried to establish interventions through government support or market-based mechanisms. Examples of such formal market-based mechanisms include providing credit to farmers, ensuring guaranteed prices of output (MSP), and encouraging farmers to participate in contract farming and futures markets and more particularly agricultural insurance. Crop Insurance coverage can reduce the downside risk for any given level of investment. Thus, access to crop insurance encourages farmers to shift investment on inputs away from low-yield and low-volatility crops to riskier crops which give higher profitability and it may be an effective tool in managing production shocks related to climate change (Falco et al. 2014; Rao 2010).

Even with all these advantages, coverage for crop insurance products is very low in our country. According to the Situation Assessment Survey (SAS) of farm households conducted by the NSSO in 2003, only 4 per cent of farmers in India insured their crops. In the second round of the SAS conducted in 2012–13, the number increased to around 8 per cen. Ministry of Agriculture & Farmers' Welfare is continuously striving to transform the lives of farmers across the country through

its flagship Crop Insurance scheme i.e., Pradhan Mantri Fasal Bima Yojana. The scheme was conceived in 2016 with an objective to provide insurance coverage and financial support to the farmers in the event of crop loss/damage arising out of unforeseen events like natural calamities, pests and diseases, post-harvest losses etc. Taking forward this commitment ahead to make the farmers self-reliant, various reforms and initiatives under the umbrella of PMFBY's Information Education Communication (IEC) have been implemented over the years to generate awareness on risks to crops sown during the two seasons i.e. *Rabi* and *Kharif* amongst the farmers and inculcate crop insurance as an integral part of agriculture in India. Need for the crop insurance arises every year in view of the fact that in one or the other parts of the country, crops are suffering from natural calamities and yield instability. Off late, this situation is aggravated on account of climate change.

1.2: About PMFBY

Agriculture in India is highly susceptible to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season. For this purpose, the Government of India has introduced many agricultural schemes throughout the country. Need for the Crop Insurance every year in one a part of India or the food crops are suffering from natural calamities, crop yield instability and type losses is the normal phenomenon in Indian agriculture and continues where the farmer's fortunes are exposed, is practically the same as before. In fact, good years and bad years, wet weather and droughts or floods and frosts, low yields and bumper crops are to be expected in mixed succession. The need for shielding the farmer from natural hazards is very important. In the light of this background Prime Minister Fasal Bima Yojana (PMFBY) Scheme was started in the year 2016. This Chapter provides detailed information on PMFBY

1.2.1: Objectives of PMFBY

- To provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests and diseases.
- To stabilise the income of farmers in order to ensure their continuance in farming.
- To encourage farmers to adopt innovative and modern agricultural practices.
- To ensure flow of credit to the agriculture sector.

1.2.2: Implementing Agency (IA):

The Scheme is being implemented through a multi-agency framework by selected insurance companies under the overall guidance and control of the Department of Agriculture and Farmers Welfare (DA&FW), Ministry of Agriculture and Farmers Welfare (MoA&FW), Government of India (GOI). The concerned State in co-ordination with various other agencies; viz Financial Institutions like Commercial Banks, Co-operative Banks, Regional Rural Banks and their regulatory bodies, Government Departments viz. Agriculture, Co-operation, Horticulture, Statistics, Revenue, Information/Science & Technology, Panchayat Raj etc. are part of this implementation.

Department of Agriculture and Farmers Welfare has designated/empanelled Agriculture Insurance Company of India (AIC) and some private insurance companies presently to participate in the Government sponsored agriculture /crop insurance schemes based on their financial strength, infrastructure, manpower and expertise. The empanelled private insurance companies at present are 1) ICICI-Lombard General Insurance Company Ltd. 2) HDFC-ERGO General Insurance Company Ltd. 3) IFFCO-Tokio General Insurance Company Ltd. 4) Cholamandalam MS General Insurance Company Ltd. 5) Bajaj Allianz General Insurance Company Ltd. 6) Reliance General Insurance Company Ltd. 7) Future Generali India Insurance Company Ltd. 8) Tata-AIG General Insurance Company Ltd. 9) SBI General Insurance Company Ltd. 10) Universal Sompo General Insurance Company Ltd. The

selection of insurance company from amongst the empanelled insurance companies to act as IA shall be done by the concerned State Government for implementation of the scheme in their respective State. Such selection of IA shall be done from amongst the designated / empanelled companies which shall be initially pre-qualified, strictly on the basis of, experience, existence of infrastructure in the area and quality of services like coverage of farmers and area, pay-outs in terms of quantum and timely settlement thereof, willingness to do publicity and awareness campaigns etc.

1.2.3: Management of the Scheme:

The existing State Level Co-ordination Committee on Crop Insurance (SLCCCI), Sub- Committee to SLCCCI, District Level Monitoring Committee (DLMC) are already overseeing the implementation and monitoring of the ongoing crop insurance schemes like National Agricultural Insurance Scheme (NAIS), Weather Based Crop Insurance Scheme (WBCIS), Modified National Agricultural Insurance Scheme (MNAIS) and Coconut Palm Insurance Scheme (CPIS) and these committees shall be responsible for proper management of the Scheme. IA shall be an active member of SLCCCI and District Level Monitoring Committee (DLMC) of the scheme.

1.2.4: Unit of Insurance:

The Scheme shall be implemented on an 'Area Approach basis' i.e., Defined Areas for each notified crop for widespread calamities with the assumption that all the insured farmers, in a Unit of Insurance, to be defined as 'Notified Area' for a crop, face similar risk exposures, identical cost of production per hectare, earn comparable farm income per hectare, and experience similar extent of crop loss due to the operation of an insured peril in the notified area. For Risks of Localized calamities and Post-Harvest losses on account of defined peril, the Unit of Insurance for loss assessment shall be the affected insured field of the individual farmer.

1.2.5: Crops and Notified Area:

Crops: The Scheme can cover all the crops for which past yield data is available and grown during the notified season in a Notified Area and for which yield estimation at the Notified Area level will be available based on requisite number of Crop Cutting Experiments (CCEs) being a part of the General Crop Estimation Survey (GCES).

Notified Area: Notified Area is the Unit of Insurance decided by the State Govt. for notifying a Crop during a particular season. The size of the Unit of Insurance shall depend on the area under cultivation within the unit. For major crops, the Unit of Insurance shall ordinarily be Village/Village Panchayat level and for minor crops may be at a higher level so that the requisite number of CCEs could be conducted during the notified crop season. States may notify Village / Village Panchayat as insurance unit in case of minor crops too if they so desire. All farmers growing notified crops in a notified area during the season who have insurable interest in the crop are eligible.

1.2.6: Compulsory Coverage:

The enrolment under the scheme, subject to possession of insurable interest on the cultivation of the notified crop in the notified area, shall be compulsory for following categories of farmers:

a) Farmers in the notified area who possess a Crop Loan account/KCC account (called as Loanee Farmers) to whom credit limit is sanctioned/renewed for the notified crop during the crop season.

b) Such other farmers whom the Government may decide to include from time to time.

1.2.7: Voluntary Coverage:

Voluntary coverage may be obtained by all farmers not covered in 1.2.6 above, including Crop KCC/Crop Loan Account holders whose credit limit is not renewed.

1.2.8: Risks to be covered and Exclusions:

Following risks leading to crop loss are to be covered under the scheme:-

a) Yield Losses (standing crops, on notified area basis):

Comprehensive risk insurance is provided to cover yield losses due to non-preventable risks, such as

- Natural Fire and Lightning
- Storm, Hailstorm, Cyclone, Typhoon, Tempest, Hurricane, Tornado etc.
- Flood, Inundation and Landslide
- Drought, Dry spells
- Pests/ Diseases etc.

b) Prevented Sowing (on notified area basis):

In cases where majority of the insured farmers of a notified area, having intent to sow/plant and incurred expenditure for the purpose, are prevented from sowing/planting the insured crop due to adverse weather conditions, shall be eligible for indemnity claims upto a maximum of 25% of the sum-insured.

c) Post-Harvest Losses (individual farm basis):

Coverage is available upto a maximum period of 14 days from harvesting for those crops which are kept in "cut & spread" condition to dry in the field after harvesting, against specific perils of cyclone / cyclonic rains, unseasonal rains throughout the country.

d) Localised Calamities (individual farm basis):

Loss / damage resulting from occurrence of identified localized risks i.e. hailstorm, landslide, and Inundation affecting isolated farms in the notified area.

1.2.9: Exclusions: Risks and Losses arising out of following perils shall be excluded:-

War and kindred perils, nuclear risks, riots, malicious damage, theft, act of enmity, grazed and/or destroyed by domestic and/or wild animals. In the case of Post–Harvest losses, the harvested crop bundled and heaped at a place before threshing, other preventable risks.

1.2.10 Sum Insured / Limit of Coverage:

In the case of Loanee farmers under Compulsory Component, the Sum Insured would be equal to Scale of Finance for that crop as fixed by District Level Technical Committee (DLTC) which may extend up to the value of the threshold yield of the insured crop at the option of insured farmer. Where value of the threshold yield is lower than the Scale of Finance, higher amount shall be the Sum Insured. Multiplying the Notional Threshold Yield with the Minimum Support Price (MSP) of the current year arrives at the value of sum insured. Wherever Current year's MSP is not available, MSP of previous year shall be adopted. The crops for which, MSP is not declared, farm gate price established by the marketing department / board shall be adopted.

Further, in the case of Loanee farmers, the Insurance Charges payable by the farmers shall be financed by loan disbursing office of the Bank, and will be treated as additional component to the Scale of Finance for the purpose of obtaining loan. For farmers covered on voluntary basis, the sum-insured is upto the value of Threshold yield i.e. threshold yield x (MSP or gate price) of the insured crop.

1.2.11: Premium Rates:

The Actuarial Premium Rate (APR) would be charged under PMFBY by IA. DAC&FW/States will monitor the premium rates considering the basis of Loss Cost (LC) i.e. Claims as % of Sum Insured (SI) observed in case of the notified crop(s) in notified unit area of insurance (whatsoever may be the level of unit area) during the

preceding 10 similar crop seasons (*Kharif* / *Rabi*) and loading for the expenses towards management including capital cost and insurer's margin and taking into account non-parametric risks and reduction in insurance unit size etc. The rate of Insurance Charges payable by the farmer will be as per the following information:

Season	**Crops**	**Maximum Insurance charges payable by farmer (% of Sum Insured)**
Kharif	Food & Oilseeds crops (all cereals, millets, & oilseeds, pulses)	2.0% of SI or Actuarial rate, whichever is less
Rabi	Food & Oilseeds crops (all cereals, millets, & oilseeds, pulses)	1.5% of SI or Actuarial rate, whichever is less
Kharif & *Rabi*	Annual Commercial / Annual Horticultural crops	5% of SI or Actuarial rate, whichever is less

a) The difference between premium rate and the rate of Insurance charges payable by farmers shall be treated as Rate of Normal Premium Subsidy, which shall be shared equally by the Centre and State.

b) AIC shall calculate Loss Cost (LC) premium rates (till an Independent Agency/TSU takes over) based on latest available yield data in month of February for *Kharif* crops and August for *Rabi* crops as per requirement of the States and shall provide to DAC&FW/Concerned States before invitation for premium bidding.

c) State Govt. would invite all the empanelled insurance companies to quote their actuarial premium rates for the notified crop(s) in the notified insurance unit area, Indemnity Level, Threshold Yields, Sum Insured etc. as indicated by the State for the season.

d) For more effective implementation, selection of Implementing Agency (IA) may be made through adopting the cluster approach under which bunch of about 15-20 good and bad districts / areas with reference to risks will be bid

out. This will facilitate the uniform distribution of the risks among the participating insurance companies and will avoid selection of districts / areas according to company's choice. In case of smaller States, the whole State shall be assigned to one IA. This is also expected to take care of districts which have traditionally had high actuarial premiums for crops due to high risk. Selection of IA may be made for at least 3 years.

e) The designated / empanelled companies participating in bidding have to bid the premium rates for all the crops notified / to be notified by the State Govt. and non-compliance will lead to rejection of company's bid.

f) The insurance coverage in terms of number of farmers & hectare-age should be at least at the previous season's level.

1.2.12: Sharing of Risk:

Risk will be shared by IA and the Government as follows:

The liability of the Insurance companies in case of catastrophic losses computed at the National level for an agricultural crop season, shall be upto 350% of total premium collected (farmer share plus Govt. subsidy) or 35% of total Sum Insured (SI), of all the Insurance Companies combined, whichever is higher. The losses at the National level in a crop season beyond this ceiling shall be met by equal contribution (i.e. on 50:50 basis) from the Central Government and the concerned State Governments.

1.2.13: Estimation of Crop Yield:

The State/UT Govt. will plan and conduct the requisite number of Crop Cutting Experiments (CCEs) for all notified crops in the notified insurance units in order to assess the crop yield. The State / UT Govt. will maintain single series of Crop Cutting Experiments (CCEs) and resultant Yield estimates, both for Crop Production estimates and Crop Insurance.

However, a Technical Advisory Committee (TAC) comprising representatives from Indian Agricultural Statistical Research Institute (IASRI), National Sample Survey Organization (NSSO), Ministry of Agriculture & Farmers Welfare (GoI) and implementing agencies shall dispose/decide the issues relating to CCEs and all other technical matters. Inputs from RST/satellite imagery would also be utilized in optimizing the sample size of CCEs.

1.2.14: Indemnity Level (IL) and Threshold Yield (TY):

i. Three levels of Indemnity, viz., 70%, 80% and 90% corresponding to crop Risk in the areas shall be available for all crops.

ii. The Threshold Yield (TY) shall be the benchmark yield level at which Insurance protection shall be given to all the insured farmers in an Insurance Unit.

iii. The Threshold Yield for a crop in an Insurance Unit shall be based on average yield of last seven years excluding two years of declared calamity if any, multiplied by the level of indemnity of the area.

1.2.15: Procedure for Assessment, Processing and Approval of Claims:

a) Yield losses at Notified Area level: Once the Yield Data is received from the State/UT Govt. as per the prescribed cut-off dates, claims will be processed, approved and settled by IA.

i. If the 'Actual Yield' (AY) per hectare of the insured crop for the defined area on the basis of requisite number of Crop Cutting Experiments (CCEs)] in the insured season falls short of the specified threshold yield(TY) Yield' (RY), all the insured farmers growing that crop in the defined area are deemed to have suffered shortfall in their yields.

ii. The Scheme seeks to provide protection against such contingency to all insured farmers of an Insurance Unit.

b) Assessment of Prevented Sowing: The adverse weather conditions shall be defined in the notification and shall be captured by notified weather station/s in the District. The extent of claims payable will be decided on the basis of weather data recorded at the notified weather station/s for the purpose. The crop-wise scale of payment upto a maximum of 25% of Sum Insured shall be worked out by IA based on a notified pay-out structure on the occurrence of pre-declared events such as month-wise deficit in aggregate rainfall during a specified period assessed through Reference Weather Stations tagged for the Notified / Group of Notified Area. The insurance coverage shall cease to operate for the crop in the notified area. The cover is available during *Kharif* season for recognised rain-fed areas and crops. The data provider will be notified by the SLCCCI.

1.2.16: Localized Calamity Loss Assessment:

a) Loss assessment and modified indemnity procedures in the case of occurrence of localized perils, such as hailstorm, landslide, flood, and inundation shall be for a cluster of affected farms or affected village and the settlement of claims, if any, will be to each insured farmer covered under assessment.

b) The District Administration will assist IA in assessing the extent of loss.

1.2.17: Post-Harvest Loss Assessment:

a) Loss assessment and indemnity procedures in case of occurrence of Post-Harvest Loss shall be for a cluster of affected farms or affected village and the settlement of claims, if any, will be each insured farmer covered under assessment.

b) The District Administration will assist IA in assessing the extent of loss.

1.2.18: On-Account Payment of Claims due to Mid-Season Adversity:

a) In case of adverse seasonal conditions during crop season viz. floods, prolonged dry spells, severe drought, unseasonal rains, IA in consultation

with concerned State Government/UT based on agro meteorological data/ satellite imagery or any other proxy indicator will decide about crops/ areas for which on account payment will be made, not exceeding 25% of likely claims.

b) Appraisal of mid-season adversity and quantum of On-Account payment will be established jointly by Government of India/concerned State Government/UT and IA.

c) On Account payment will be implemented only in those districts/notified areas where such proxy indicators can be established and will be considered for payment and only if the expected yield during the season is likely to be less than 50% of normal yield. IA shall process the claims liability assessed as per above mentioned methodology and approve the claims.

1.2.19: Procedure for Settlement of Claims:

a) For coverage through Banks:-The claim amount along with particulars will be released to the individual Nodal Banks. The Banks at the grass-root level, in turn, shall credit the accounts of the individual farmers and display the particulars of beneficiaries on their notice board. The Banks shall provide individual farmer wise details of claim credit details to IA and shall be incorporated in the centralised data repository.

b) For coverage through other insurance intermediaries: The claim amount will be released electronically to the individual Insured Bank Account.

1.2.20: Acreage discrepancy

Some areas in the past have reported excess insurance coverage vis-à-vis planted acreage, leading to 'over' insurance. Ideally the discrepancy should be handled at farm level to protect the interest of farmers with genuine insurance coverage. However, in the absence of digitized farm records on a GIS platform, it would be cumbersome to physically verify each farm. For the time-being, it is to be addressed as follows:

a) Wherever the 'acreage discrepancy' is likely, the acreage insured at IU level shall be compared with average planted acreage of past three years, and the difference will be treated as 'excess' insurance coverage.
b) Sum insured may be scaled down in the ratio of the average of three years' actual planted acreage which bears to the insured acreage for the given crop.
c) Claims shall be calculated on the scaled down sum insured
d) Premium shall be retained by the insurance company for the portion of sum insured scaled down.

Once the individual farms (plots / survey numbers) are digitized and available on a GIS platform, it is possible to overlay the crop cover as derived using satellite imagery on the GIS platform to identify the crop and estimate the cropped area on each farm. This should lead to identifying the acreage discrepancy at individual farm level.

1.2.21: Management of the Scheme and Review:

a) Government of India shall issue operational guidelines and modalities, which may be appended from time to time, for implementation of the scheme provisions with detailed steps and processes involved, terms and condition applicable, roles and responsibilities of various agencies involved in execution of the scheme and roles and responsibilities of other related stakeholders.
b) These operational modalities shall be considered as a part of the scheme.
c) The scheme may be reviewed periodically and additions, deletions and modifications of the provisions may be done as deemed necessary.
d) During each crop season, the agricultural situation will be closely monitored in the implementing States / Union Territories. The State / UT Department of Agriculture and district administration shall set up a District Level Monitoring Committee (DLMC), who will provide fortnightly reports of Agricultural situation with details of area sown, seasonal weather conditions, pest incidence, stage of crop failure (if any) etc.

e) The operation of the Scheme will be reviewed annually and modifications as may be required would be introduced. Periodic Appraisal Reports on the Scheme would be prepared by Ministry of Agriculture, the Government of India / Implementing Agency.

1.2.22 Publicity and Awareness:

a) Adequate publicity needs to be given in all the villages of the notified districts/ areas. All possible means of electronic and print media, farmer's fair, exhibitions including SMS messages, short films, and documentaries shall be utilized to create and disseminate awareness, benefits and limitations of the Scheme among the cultivators and the agencies involved in implementing the Scheme. Agriculture/Cooperation Department of the States in consultation with IA shall work out appropriate Plan for adequate awareness and publicity three months prior to the start of coverage period.

b) IA shall also assist the State Government/ UT in capacity building for effective implementation of the scheme and organize training workshops/sensitization programme for various stakeholders.

1.2.23 Service Tax:

- PMFBY is a replacement scheme of NAIS / MNAIS, and hence exempted from Service Tax liability of all the services involved in the implementation of the scheme.

1.2.24 Use of Innovative Technology:

DAC&FW shall carry out pilots in select areas in collaboration with various States/UTs, national and international research organizations/institutes, IMD, insurance companies, reinsurers etc., to make use of available technology in the fields of remote sensing, aerial imagery, satellites etc. that can help in acreage estimation, crop health / loss estimation and quicker yield estimation with reduced manpower and infrastructure. With development of number of satellites with high resolution

images orbiting the Earth, there have been great improvements in satellite imagery products. It has been reasonably proven that the satellite imagery can help in demarcating the cropped areas into clusters on the basis of crop health. This feature can be successfully used to target the CCEs within the Insurance Unit (IU). Thus satellite imagery can help in 'smart sampling' of CCEs. While an IU with heterogeneous crop health may need standard sample of CCEs, for eg. 4 CCEs per Village / Village Panchayat for major crops. The more homogenous IU may need a lower sample size, say 2 CCEs. This is expected to minimize the total CCEs needed by about 30-40%. States should progressively adopt this technique in generating yield estimates.

After proven strong correlation between RST / Satellite Imageries results and yield estimates through CCEs, States may use the technologies in estimating the crop yields at IU level, subject to the satisfaction of Central and State Governments and insurance companies with the accuracy of the yield estimates to service the claims.

a. The integrity of CCEs will be verified by use of GPRS enabled Mobile phones with cameras/smart phones. These phones will also help in addressing the problem of area discrepancy by capturing pictures of standing crops and will also help in quicker, accurate estimation of yields.
b. Such technologies, after due consideration of pilot results by the Government shall be included in the Scheme.
c. All State government shall use technology initiatives in the conduct and supervision of CCEs to provide the yield data with minimum delay to IA for quick processing of the claims. The State governments shall also use technology initiatives in the reporting of loss reports for on-account claim settlement, Claim intimations for Localized calamity and Post-Harvest losses.
d. A centralized repository shall be maintained. Appropriate application (web based, app based etc.) would be developed by NIC. The State Government, IA, Banks, Insurance Intermediaries shall use this applications for inputting

various operational data like notification related data, individual farmer wise insurance coverage and claims details, crop loss details etc.

1.3 Review of the Scheme

State Governments will review the performance of the scheme after one year and point out corrections, if any, required in any of the provisions of the scheme to Govt. of India.

1.3.1: Mega Awareness Campaign:

Ministry of Agriculture & Farmers' Welfare observes Crop Insurance Week Twice every year. On this week a mass-awareness campaign 'Crop Insurance Week/Fasal Bima Saptah' is organized at the nationwide by the Ministry of Agriculture and Farmers Welfare (*Kharif* - 1st - 7 th July and– *Rabi* 1st- 7th Dec). The campaign was launched from *Kharif* 2021 onwards, with special focus on 75 aspirational/tribal districts with low PMFBY penetration.

1.3.2: Mission of the Campaign:

Campaign is to increase farmers' enrolment and create massive awareness on crop insurance and aimed at mobilization of multi-level stakeholders for a structured execution of the Crop Insurance Week. State governments, banks, CSCs, insurance companies including grassroot level association with ATMA, Panchayati Raj Institutions (PRI), FPO, Banks, PACS, CSCs and Insurance Companies are involved in this process.

The campaign was launched in 2021 by Hon'ble Union Minister for Agriculture and Farmers welfare by virtually flagging off 24 IEC Vans stationed across the country in presence of PMFBY stakeholders. As a part of the campaign, PMFBY e-Brochure, FAQ Booklet and a PMFBY/RWBICS Guidebook were launched to assist farmers and ground level coordinators in understanding the basics of the scheme.

During the entire duration of the campaign, farmers are engaged through multiple IEC activities in the State of Assam, Chhattisgarh, Haryana, Himachal Pradesh, Karnataka, Kerala, Odisha, Rajasthan, Sikkim, Tamil Nadu, Uttar Pradesh

and Uttarakhand with support of State Government and local level organizations like ATMA, Panchayati Raj Institutions (PRI), FPO, Banks, PACS, CSCE and Insurance Companies. Following are the grassroot activities undertaken in the above-mentioned States to create widespread awareness during this week:

1. IEC Vans at regional and national level travel to all notified areas informing farmers on benefit of crop insurance, enrolment process and other scheme related information.
2. Insurance Companies additionally deploy their vans to reach out to all nooks and corners of the States and UTs implementing PMFBY.
3. Distribution of PMFBY print collaterals such as pamphlets, flyers across entire districts.
4. Special engagement workshop/seminars are organized with Women Farmers.
5. Banners and Wall Paintings across Villages/Blocks/Districts.
6. Nukkad Natak are organized in various villages/ blocks.
7. Display of Hoardings/Posters in Hindi and other regional languages.
8. Awareness and engagement activities in partnership with other Government partners such as MyGov.in.

The core focus of these two campaign is to increase farmers' enrolment and create massive awareness on crop insurance, provide insurance coverage and financial support to the farmers in the event of crop loss/damage arising out of unforeseen events like natural calamities, pests & diseases etc. thereby helping them to reap the benefits of crop insurance. On this back step, National Institute of Agricultural Extension Management (MANAGE) has designed the study to assess the effectiveness of these campaigns under the following objectives

1.4 Objectives of the Study:

1. To measure the level of awareness among the farmers about the PMFBY
2. To study the impact of awareness camps on the level of awareness and enrolment about the PMFBY
3. To suggest measures to improve its performance of PMFBY in terms of awareness and enrolment

Chapter 2
Research Design and Methodology

2.0 Methodology:

In this chapter, selection of study area, selection of sample respondents and analytical tools and techniques used for the study are presented in the following sections.

2.1 Selection of the study area:

The study covers 19 States and Union Territories for which the data of farmers enrolled with PMFBY was available and the same was provided by the Ministry of Agriculture and Farmers Welfare.

2.2 Sampling Design

Multistage stratified random cum purposive sampling cum proportional sampling technique has been used in selection of States, Districts and farmers. The stratification has been done on the basis of States and Districts.

Table-2.1: Total Number of Enrolled Farmers and Estimated Sample Size

Sl. No	State	No. of candidates enrolled	Sample of enrolled farmers selected	
			Critical Minimum Sample	Sample Size Chosen
1.	Andaman and Nicobar	131	56	100
2.	Assam	237072	97	100
3.	Chhattisgarh	1417872	97	100
4.	Goa	204	66	100
5.	Haryana	453019	97	100
6.	Himachal Pradesh	99000	98	100
7.	Jammu and Kashmir	41705	96	100
8.	Kerala	39954	96	100
9.	Madhya Pradesh	2521588	97	100
10.	Maharashtra	4700410	97	100
11.	Manipur	3221	94	100
12.	Meghalaya	271	72	100
13.	Odisha	1369163	97	100
14.	Puducherry	2855	93	100
15.	Rajasthan	3107702	97	100
16.	Sikkim	622	84	100
17.	Tripura	190281	96	100
18.	Uttarakhand	104725	96	100
19.	Uttar Pradesh	1797089	97	100
	Total	**16086884**	**1723**	**1900**

Source: Ministry of Agriculture & Farmers' Welfare

In the first stage of sampling, nineteen States where PMFBY enrolment is prevalent have been selected for the study. Table-2.1 gives the details on State wise enrolled farmers for Prime Minister Fasal Bima Yojana (PMFBY). It is clear from the Table that 1.61 crore farmers have enrolled for PMFBY for *Kharif* 2022. The top five enrolled States are Maharashtra, Rajasthan, Madhya Pradesh, Uttar Pradesh and Chhattisgarh. The proportionate sampling method gives a sample size of 1723 for all 19 States with the sample farmers range between 56 to 97 across19 States. This made us to decide a sample of 100 farmers per State and thus 1900 farmers for 19 States (Tables 2.1).

Secondly from each State, two districts were selected for the study i.e., one district having high uptake percentage of enrolment in PMFBY, and other one low uptake of insured farmers (Table-2.2 & 2.3). From each district, 50 farmers are selected at random and from a total 38 districts from nineteen States, the total farmers selected randomly was 1900. Sampling procedure has been summarized here in the following points.

- To measure the impact of a sample size estimated is critical minimum size which is given in Table 2.1. However to have more accuracy and closer to the universe, a sample size of 100 for each State was chosen and thus the total sample size for 19 States and union territories is arrived at 1900.
- Two districts from each State is chosen i.e., one district with highest enrolment and the other district with the lowest enrolment.
- To assess the effectiveness of Mega Awareness Campaign, Pre and Post campaign surveys of the respondents was be carried out for both the periods.
- To assess the effectiveness of Mega Awareness Campaign, samples were drawn from the same States which have been chosen for the study under Meri Policy Meri Haath (MPMH).

- To assess the effectiveness of both the campaigns, surveys of the beneficiaries and the respondents was conducted using pre structured interview schedule (Annexure-1).
- Post campaign survey of the Mega Awareness Campaign was conducted on same respondents who were selected during Pre campaign survey.

Table-2.2: Sampling Procedure for Selection of Districts & Farmers

Projects	Surveys	Area of Sampling	Districts	Number of Farmers Selected	Sampling Method
Mega Awareness Campaign	Pre Campaign Survey	19 States and UTs	**2**	1900 @ 100 farmers per State)	Simple Random sampling from farmers
	Post Campaign Survey	19 States and UTs	**2**	1900 @ 100 farmers per State)	Simple Random sampling from farmers

Table-2.3: List of States and Districts Selected for the Study

S.No	Selected State	Selected Districts	
		District 1	District 2
1.	Andaman & Nicobar	North and Middle Andaman	South Andaman
2.	Assam	Dhubri	Tinsukia
3.	Chattisgarh	Rajnandgaon,	Balarampur
4.	Goa	North Goa	South Goa
5.	Haryana	Sirsa	Panipat
6.	Himachal Pradesh	Kangra	Hamirpur
7.	Jammu & Kashmir	Jammu	Sambha
8.	Kerala	Palakkad	Pothanamthitta
9.	Madhya Pradesh	Ujjai	Niwari
10.	Maharastra	Kolhapur	Sindudurg
11.	Manipur	Bishnupur	West Imphal
12.	Meghalaya	Ri-Bhoi District	West Garo Hills
13.	Orissa	Bargarh	Malkangiri
14.	Puducherry	Pondicherry	Karaikal
15.	Rajasthan	Kota	Baran
16.	Sikkim	Gangtok	Nanchi
17.	Tripura	Gomati	Khowai
18.	Uttara Pradesh	Muzafurnagar	Raeberrilly
19.	Uttarakhand	Uddham Singh Nagar	Nainital

First Pre Campaign Survey of 1900 farmers from 38 districts of 19 States was conducted in second fortnight of November 2022, and Post Campaign survey in second fortnight of January, 2023 to understand effectiveness of the Mega Awareness Campaign**.** Qualitative data have also been collected to corroborate the quantitative data to understand learnings.

2.3 Analytical tools and Techniques for study

In order to analyse the data and to draw meaningful conclusions, various analytical tools used are listed below:

- Frequency distribution
- Percentage
- Mean
- Standard deviation
- Multivariate Analysis :

Multivariate analysis is carried out to see the effect of some important variables influencing the PMFBY awareness levels. The dependent variable is a dichotomous variable, containing value "1" when a farmer household reported being aware about crop insurance, and "0" when not aware. Independent variables for our analysis are information on crop insurance. We considered a household as having received information if it obtained technical advice from at least one of these five channels viz., Farm Magazines, Radio, TV, Social Media, KCC (Kisan Call Centre) by attending the awareness camps organised by Government), access to formal loan, education with four levels of educational achievement: illiterate, 10th, Intermediate, Graduation and Post-Graduation. The rationale behind taking education as one of the influential variable is that a household member with higher educational level than the household head with lesser education may have more knowledge about a sophisticated financial product such as agricultural insurance. Caste was included in following four categories: Scheduled Tribe (ST), Scheduled Caste (SC), Other Backward Classes (OBC), and Others, where the first group is the

socially most disadvantaged and the last group is the least disadvantaged. Land owned, age of farmer household and distance of the bank from the village were also included because in India, crop insurance is primarily sold through bank branches. Therefore, a larger number of bank branches in an area should normally indicate higher levels of awareness about crop insurance.

$$Y = B1 = B2\ Xi \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

Where,

Y is a dependent variable and

i refers to the various independent variables

To investigate the determinants of awareness about crop insurance, we employed a logistic regression model as shown in equation 1, where the outcome variable "Y" takes the value 1 when a farm household is "aware" and 0 otherwise, and "X" is a vector of household-level as well as other control variables.

2.4 Expected Outcome Of The Study:

1. Level of awareness of the scheme and its features among marginal and small farmers and also among other categories of farmers.
2. Level of extent of farmers' enrolment in PMFBY Scheme.
3. Extent of effectiveness of Mega Awareness Campaign, pre and post campaign.

Chapter 3
Results & Discussion

In this chapter, the findings of the data analysed using both primary and secondary data have been discussed under different thematic heads.

A report on a scientific study using human participants will include a description of the participant's characteristics (here in farmers). The purpose is to give readers information on the number and type of study participants, as a way of clarifying to whom the study findings apply and for shedding light on the generalizability of the findings as well as any possible limitations. Accurate reporting is needed for replication studies that might be carried out in the future. In the light of this objective, the present chapter is divided into three sections. Section 3.1 has been devoted to understand the socio economic characteristics of sampled households. This is necessary to evaluate the background under which these farm households have been operating, so that the inference could be viewed accordingly. Section 3.2 focuses on mega awareness campaigns of PMFBY mass media campaign and also flow of information from other sources. Section 3.3 analyses the impact of mega awareness campaigns of PMFBY on awareness and enrolment levels of PMFBY

3.1: Socio economic Profile of Sample Households:

Demographic Profile of Sampled households has been analysed in terms of age, literacy levels, gender, and social category and presented in various sections below.

3.1.1: Composition of the Age of the Sample Respondents:

Age is one of the very important factors in absorbing and influencing the crop insurance decision of the farmers. Elderly farmers have more experience and hence are in a position to buy crop insurance to mitigate risk. However, Swain and Hembram (1987) found that the farmer's age is inversely connected to crop insurance adoption. Because young farmers are more aware of the benefits of crop insurance, they are more likely to purchase it. Seyed Abolhasan Sadati *et al* (2010) have found a

significant negative correlation between the age of the farmer and adoption of crop insurance. This phenomena is analysed and discussed in Section 3 from our data sources.

As shown in the Table-3.1, the overall average age of sample farmers is in the range of 41 to 57. The overall average age for all 1900 sample farmers is 48 years. It is clear from the findings that the highest number of farmers are found in the age group of 40 years to 59 years (52%) followed by less than by 40 Age Group (29%) and above 60 years (21%). Sample farmers from Uttara Pradesh, Himachal Pradesh, Kerala, Jammu and Kashmir and Puducherry have reported higher age than the overall age average age of 48 years.

Table-3.1: Age Composition of Sample Farmers in Selected States of India (%)

Sl. No.	State	Number of Farmers in different Age Category(Years)				Average Age (Years)
		< 40	40 to 59	above 60	Total	
1.	Andaman & Nicobar Islands	40	52	37	100	55
2.	Assam	**56**	35	9	100	41
3.	Chhattisgarh	31	51	18	100	47
4.	Goa	15	**81**	4	100	46
5.	Haryana	33	48	19	100	45
6.	Himachal Pradesh	21	50	**29**	100	50
7.	Jammu and Kashmir	**36**	50	14	100	51
8.	Kerala	7	**55**	**38**	100	56
9.	Madhya Pradesh	34	**46**	20	100	46
10.	Maharashtra	16	**66**	18	100	48
11.	Manipur	22	**61**	17	100	48
12.	Meghalaya	**50**	**40**	10	100	41
13.	Odisha	29	**56**	15	100	47
14.	Puducherry	7	**50**	**43**	100	57
15.	Rajasthan	34	45	21	100	45
16.	Sikkim	34	44	22	100	47
17.	Tripura	31	51	18	100	47
18.	Uttarakhand	23	62	15	100	47
19.	Uttar Pradesh	23	49	28	100	50
	Overall (All India)	**542 (29)**	**992 (52)**	**395 (21)**	**1900 (100)**	**48**

Source: Field Data
Figures in parentheses are percentage shares in total

In the agriculture sector, though the productive age is less than 40 years, the category of farmers in the age group of 40-59 are in a better position to absorb the awareness due to their experience. Hence, the awareness programmes of PMFBY may take into account both the age group (< 40 years and 40-59 years).

3.1.2: Gender Composition:

Gender influences which crops are grown, which animals are raised, and which technologies are used. It influences how households earn a livelihood and manage risks, what children eat and how they are cared for. In homes, fields, factories, marketplaces, and communities, gender influences how decisions are made. It is very important to address gender gaps in registration. The existing literature shows that more female than male farmers are comfortable purchasing more inputs because of insurance and there are large number of benefits farm households if female farmers are part of crop insurance scheme.

Table-3.2: Gender Composition of Sample Farmers in Selected States of India (%)

Sl. No.	State	Sex		Total
		Male	Female	
1.	Andaman & Nicobar Islands	94	6	100
2.	Assam	72	**28**	100
3.	Chhattisgarh	97	3	100
4.	Goa	95	5	100
5.	H.P	87	13	100
6.	Haryana	99	1	100
7.	J&K	86	14	100
8.	Kerala	66	34	100
9.	Madhya Pradesh	97	3	100
10.	Maharashtra	94	6	100
11.	Manipur	**52**	**48**	100
12.	Meghalaya	**65**	**35**	100
13.	Odisha	99	1	100
14.	Puducherry	89	11	100
15.	Rajasthan	93	7	100
16.	Sikkim	**66**	**34**	100
17.	Tripura	94	5	100
18.	Uttar Pradesh	90	10	100
19.	Uttarakhand	95	5	100
Overall (All India)		**1630 (86)**	**269 (14)**	**1900 (100)**

Source: Field Data,
Figures in parentheses are percentage shares in total

In a sample of 1900 farmers, 86 per cent of the sample farmers are male with an exception of Kerala, and northeaster States (Manipur, Sikkim, Meghalaya, Assam) (Table-3.2). The same is true for all the districts (Annexure-2). In the case of Manipur, the proportion of female sample farmers is 48 percent, followed by Meghalaya (35%), Kerala and Sikkim (34% each) and Assam (28%). The higher proportion of female participants may be attributed to the higher proportion of land title in the name of women. For remaining States the proportion of female sample farmers is very low. The campaign strategies for creating an awareness about the PMFBY may focus on among female farmers in these States.

3.1.3: Levels of Literacy and Education:

The farmers as producers of food must have an enabling environment for access to knowhow and do-how for realizing the full potential of modern agricultural technology and should be empowered in taking initiatives and decisions which will only help in shaping the future of farmer's economy. Education is important to know factors responsible for the improvement of agricultural productivity and formal education opens the mind of the farmer to acquire knowledge. Informal education gives the farmer hands-on training and better methods of farming and it keeps the farmer abreast with changing innovations and ideas and allows farmer to share experience gained.

Hence, the literacy level of the sample farmers was analysed using the primary data collected and the results of the same are presented in the Table-3.3

As far as the literacy level of the sample farmers is concerned, only 19 per cent of the overall households at all India level are illiterate. The literacy profile at all India level is also quite impressive with 49 per cent of them having completed 10th class followed by intermediate (14%), graduation (12%) and only three per cent are post graduates. This shows that 81 per cent of the sample farmers are educated. Relatively large number of illiterate farmers are observed in the case of Madhya Pradesh (50%) followed by Rajasthan (34%), Assam (31%), Manipur and Uttara Pradesh (24%). In the case of Himachal Pradesh, 18 per cent of the sample farmers

are post graduates and this is the highest among all the States. In the case of Odisha, Jammu and Kashmir and Manipur, there are hardly any post graduates. A large majority of the sample farmers are with 10th class qualification in all the selected States. It indicates that the sampled farmers having modest education levels to be able to respond to all the questions regarding the performance of PMFBY (Table 3.3).

Table-3.3: Levels of Literacy and Education among Sample Farmers in Selected States (%)

Sl. No.	State	Illiterate	10th class	XII	Graduation	PG	Total
1.	Andaman and Nicobar Islands	**30**	**60**	4	6	0	100
2.	Assam	**31**	36	17	5	4	100
3.	Chhattisgarh	20	**58**	15	3	4	100
4.	Goa	18	39	32	10	1	100
5.	H.P	0	40	0	**40**	**18**	100
6.	Haryana	15	45	19	18	3	100
7.	J&K	12	**75**	7	6	0	100
8.	Kerala	17	**59**	11	9	2	100
9.	Madhya Pradesh	**50**	28	11	6	5	100
10.	Maharashtra	6	46	25	**19**	4	100
11.	Manipur	**28**	40	18	12	0	100
12.	Meghalaya	14	**71**	6	9	0	100
13.	Odisha	22	**68**	0	10	0	100
14.	Puducherry	7	44	22	14	4	100
15.	Rajasthan	**34**	32	14	18	2	100
16.	Sikkim	14	47	7	5	1	100
17.	Tripura	12	**51**	7	**19**	3	100
18.	Uttar Pradesh	**24**	40	24	9	3	100
19.	Uttarakhand	9	48	26	14	2	100
Overall (All India)		**363 (19)**	**927 (49)**	**265 (14)**	**232 (12)**	**56 (3)**	**1900 (100)**

Source: Field Data

Figures in parentheses are percentage shares in total

For the States where literacy levels are low or the proportion of illiterates is high, appropriate means of spreading awareness such as posters, nukkad nataks may be used to create level of awareness among them.

3.1.4: Social Category of Sample Farmers:

The information on Social Category of the sample respondents was collected and the results are presented in the Table-3.4.

Looking at the composition of the sample farm households across all States by social groups, about 38 per cent of sample farmers belong to the OBC category and

36 per cent belongs to the general category. SC category constitutes less 8 per cent and on the contrary, ST category constitutes 18 per cent. Major portion of the famers either belong to OC or OBC across all the selected States of India (Table-3.4).

Table-3.4: Social Category of Sample Farmers in Selected States of India (%)

Sl. No.	State	Social Category				
		SC	ST	OBC	OC	Total
1.	Andaman & Nicobar Islands			**83**	17	100
2.	Assam	1	2	47	50	100
3.	Chhattisgarh	8	**33**	54	5	100
4.	Goa	0	24	47	29	100
5.	H.P				**100**	100
6.	Haryana	**28**	0	19	**53**	100
7.	J&K	**33**	1	5	**61**	100
8.	Kerala	8	0	40	**52**	100
9.	Madhya Pradesh	**27**	4	44	25	100
10.	Maharashtra	3	0	26	**71**	100
11.	Manipur	0	5	37	**58**	100
12.	Meghalaya	0	**100**	0	0	100
13.	Odisha	2	**50**	46	2	100
14.	Puducherry	7	0	**90**	3	100
15.	Rajasthan	12	22	58	8	100
16.	Sikkim	1	**38**	24	37	100
17.	Tripura	13	**52**	26	9	100
18.	Uttar Pradesh	4	1	48	47	100
19.	Uttarakhand	5	3	38	**54**	100
Overall (All India)		**152 (8)**	**335 (18)**	**732 (38)**	**681 (36)**	**1900 (100)**

Source: Field Data
Figures in parentheses are percentage shares in total

3.1.5: Land Holding Pattern:

Size of the holding refers to a piece of land cultivated by a farmer or his family. Larger the size of the holding, greater will be the adoption of innovations (in this case enrolment in PMFBY). Therefore it is necessary to collect the information on size distribution of land holdings of sample farmers to see how the size of the landholding is a factor in adoption of agricultural insurance.

It is revealed form the results presented in the Table-3.5 that 62 per cent of the respondents are marginal farmers, 20 per cent are small, 13 per cent are medium and

only 6 per cent are large farmers. Thus About 82 per cent of sample farmers are small and marginal in our study. Almost similar status is observed in all States only with the exception of Rajasthan and Haryana. In these two States 34 per cent and 20 per cent respectively are large farmers. In the State of Himachal Pradesh all the sample farmers are marginal farmers only (Table 3.5). Given the higher proportion of small holdings, the risk bearing ability of the farmer is very low. Hence, supporting these marginal farmers with customized crop insurance product assumes greater significance.

Table-3.5: Size Distribution of Land Holdings[1] of Sample Farmers in Selected States of India (%)

Sl. No.	State	Number of Holdings				
		Marginal	Small	Medium	Large	Total
1.	Andaman & Nicobar	92	1	7	0	100
2.	Assam	65	22	11	2	100
3.	Chhattisgarh	33	42	21	4	100
4.	Goa	88	6	4	2	100
5.	Haryana	14	23	43	20	100
6.	Himachal Pradesh	100				100
7.	Jammu & Kashmir	89	2	4	5	100
8.	Kerala	73	10	11	6	100
9.	Madhya Pradesh	43	32	16	9	100
10.	Maharashtra	54	32	10	4	100
11.	Manipur	59	31	7	3	100
12.	Meghalaya	65	26	9	0	100
13.	Odisha	86	11	2	1	100
14.	Puducherry	33	34	26	7	100
15.	Rajasthan	5	28	33	34	100
16.	Sikkim	79	15	4	2	100
17.	Uttar Pradesh	51	34	12	3	100
18.	Uttarakhand	54	21	20	5	100
19.	Tripura	89	4	3	4	100
Overall (All India)		**1172 (61.7)**	**374 (19.7)**	**243 (12.8)**	**111 (5.8)**	**1900 (100.0)**

Source: Field Data

Figures in parentheses are percentage shares in total

[1] Marginal less than 1 hectare; small holding between 1-2 hectares, medium 2 – 10 hectares and large greater than 10 hectares

3.1.6: Cropping Pattern

Cropping pattern which means what types of crops the farmer is growing and how much he is allocating under each crop is one of important factors to decide the enrolment for crop insurance because the premium amount for insuring the crop varies from crop to crop. So it is important to study the cropping pattern of sample farmers before discussing the awareness of PMFBY and enrolment in PMFBY.

Table-3.6: Number of Sample Farmers for Important *Kharif* and *Rabi* Crops in Selected States of India (%)

Sl. No.	State	Number of farmers						
		Kharif				*Rabi*		
		Paddy	Sugar cane	vegetables	Coconut	Maize	Wheat	Mustard
1.	Andaman and Nicobar	50			46			
2.	Assam	**100**	13	55				1
3.	Chhattisgarh	**99**	0	2		32	36	24
4.	Goa	59	0					
5.	Haryana	69	14	31		2	100	52
6.	Himachal Pradesh	**100 (Maze)**						
7.	Jammu & Kashmir						**100**	
8.	Kerala	45	0	24	45	0	24	45
9.	Madhya Pradesh	83	12				96	2
10.	Maharashtra	69	17	5			4	
11.	Manipur	80	0	44				1
12.	Meghalaya	37	2					
13.	Odisha	**100**						
14.	Puducherry	47	0	4				
15.	Rajasthan	5	0			4	2	3
16.	Sikkim	31	0	57		96	7	32
17.	Tripura	88				**100***		
18.	Uttar Pradesh	61	**53**			8	84	26
19.	Uttarakhand	**95**	2				89	

Source: Field Data

*Vegetables

It is clear from Table-3.6 that paddy is the main crop of sample farmers in *Kharif* season in almost all States except Jammu and Kashmir and Himachal Pradesh. Other important *Kharif* crops are sugarcane, vegetables and coconut in Andaman and

Nicobar and Kerala States. During *Kharif* season, the sample farmers in Himachal Pradesh are cultivating only maize and vegetables. Major *Rabi* crops cultivated by the sample farmers include maize, wheat, mustard and vegetables. Creation of awareness before *kharif* or *rabi* season may influence the decision of the farmers go to for crops empanelled for crops insurance as apart of risk mitigation mechanism

3.1.7 Sources of income:

Farmers not only depend on farming as their main source of income but also work in various activities to obtain income from other sources. To obtain higher income, farmers carried out various activities either on-farm, off-farm, or non-farm. Those activities could increase household income and fulfil demand of the households. The decision of the farmers to pay insurance premium depends on what higher level of income.

Table-3. 7: Sources of Income of Sample Farmers in Selected States of India (%)

Sl. No.	State	Farming	Livestock	Labour	Business	Others
1.	Andaman & Nicobar	100	1	0	1	16
2.	Assam	100	57	27	11	**48**
3.	Chhattisgarh	100	5	**47**	3	4
4.	Goa	100	14	0	2	0
5.	Haryana	100	**72**	3	9	5
6.	Himachal Pradesh	100	**100**	0	0	0
7.	Jammu & Kashmir	100	48	8	**48**	6
8.	Kerala	100	11	1	5	22
9.	Madhya Pradesh	100	44	17	7	36
10.	Maharashtra	100	**68**	17	6	30
11.	Manipur	100	9	**72**	**35**	**62**
12.	Meghalaya	100	26	6	*12*	4
13.	Odisha	100	15	**39**	15	**72**
14.	Puducherry	100	37	10	7	17
15.	Rajasthan	100	28	9	1	0
16.	Sikkim	100	**67**	5	18	32
17.	Tripura	100	21	4	2	7
18.	Uttar Pradesh	100	12	10	3	8
19.	Uttarakhand	100	47	15	0	2
% of farmers engaged		100	36	15	10	19

Source: Field Data

Figures in parentheses are percentage shares in total

If farming is the most important source of income for his livelihood, it would be wise decision to go for crop insurance. We have classified these activities into four broad categories

1. Farming - It included income from the cultivation of cereals, pulses, oilseeds, fibres, sugarcane, fruits, vegetables, floriculture, spices, medicinal and aromatic plants and plantation crops.
2. Livestock - it included value of output from the dairy, poultry, sheep and goats.
3. Wages and salaries, and
4. Non-farm business - It included income from manufacturing, hotels & restaurants, construction, mining & quarrying, repairing, and other services.

The most important source of income of the sample farmers is from farming activity all the selected States. About 36 per cent of the farmers earning income through livestock. More than 50 per cent of sample farmers are earning income through livestock in the States such as Himachal Pradesh, Haryana, Sikkim, Maharashtra and Assam. Only 15 per cent of the sample farmers are earning income through wages largely from Manipur and Assam. Sample farmers are also earning income from other sources and this number constitutes around 29 per cent (Table-3.7).

An analysis of income class revealed that across all 19 States, about 57 per cent of sample farmers are earning an income of lesser than Rs 120000 per annum and 22 per cent of them are earning more 240000 per annum. It is observed that More than 75 per cent of sample farmers in the States such Himachal Pradesh, Odisha, Goa, Kerala and Madhya Pradesh are earning less than Rs 120000. More than 50 per cent of sample farmers earn more than Rs 240000 in States such as Haryana, Rajasthan and Meghalaya (Table-3.8).

Table-3.8: Distribution of Sample Farmers as Per Income Class for the selected States of India (%)

Sl. No.	State	Income Class			
		Less than Rs 120000	Between Rs 120000 to 240000	Greater than Rs 240000	Total
1.	Andaman	14	**47**	39	100
2.	Assam	70	12	18	100
3.	Chhattisgarh	69	24	7	100
4.	Goa	**89**	6	5	100
5.	Haryana	20	19	**61**	100
6.	Himachal Pradesh	**98**	0	2	100
7.	Jammu & Kashmir	59	16	25	100
8.	Odisha	**90**	9	1	100
9.	Tripura	69	20	11	100
10.	Kerala	78	11	11	100
11.	Madhya Pradesh	76	21	3	100
12.	Maharashtra	31	24	**45**	100
13.	Manipur	70	28	2	100
14.	Meghalaya	28	22	**50**	100
15.	Puducherry	59	16	25	100
16.	Rajasthan	17	30	**53**	100
17.	Sikkim	62	22	16	100
18.	Uttara Pradesh	26	**51**	23	100
19.	Uttarakhand	62	24	14	100
Overall (All India)		**1087 (57)**	**402 (21)**	**411 (22)**	**1900 (100)**

Source: Field Data,
Figures in parentheses are percentage shares in total

3.2 Status of Mass Media Campaigns of PMFBY and Information Flow to Farmers

Most important factor to ensure effective implementation of PMFBY is its awareness among farming community. Concerted efforts are undertaken to create awareness amongst the farmers with an aim to increase awareness not only among the loanee farmers but also among the non-loanee farmers enrolled and to increase the coverage of total cropped area. The focused areas of PMFBY as far as awareness is concerned are:

- Creating awareness through publicity campaigns
- Educating farmers about the benefits of the scheme to persuade them to get coverage under PMFBY

For creating the awareness on PMFBY, village level workers organise regular discussions at short intervals to motivate and create awareness for adopting the PMFBY scheme. Many training programmes and farmer fests have been organised country wide to educate farmers on various aspects of the Scheme including the need for crop insurance, climatic conditions of the district, procedure of enrolment, nearby facilitation centres, etc. District level officials of Department of Agriculture, insurance company representatives and other officials of cooperative departments participate in village campaigns which enhance their impact and assure farmers about the insurance company activities. In some villages, farmers who are already benefited in such schemes are also involved in sharing their experiences. This boosts the confidence of other farmers to purchase insurance product and continue farming despite natural calamities like drought and flood. They are also motivated to adopt innovative and modern agricultural practices. Many publicity campaigns and farmers awareness programmes have been conducted in 2022-23 at district, block and sector and gram panchayat level. Publicity has been done through social and electronic media and m-Kisan States Portals. In this section, an attempt has been made to analyse the role of mega awareness campaigns in creating awareness, educating the farmers about the benefits of the PMFBY Scheme and popularising the same.

3.2.1: Participation of the Sample Farmers in Social Organizations:

The role of social engagement in the information flow within the farming community is considered as a potential moderating factor in the awareness levels of PMFBY. Social networks play a role in facilitating greater access to sources of information. Farmers with access to training and formal sources of knowledge have able to transfer acquired knowledge with other farmers within their network.

Out of 1900 sample farmers only 766 farmers are members of some social organisation or the other which means only 40 per cent across 19 selected States are part of social organisations. This percentage ranges from 9 in Odisha to 90 in Uttara Pradesh. The participation levels in social organisation is very high in the case of

States such as Uttara Pradesh, Rajasthan, Tripura, Kerala, Haryana and Chhattisgarh and very low in States such as Odisha, Himachal Pradesh, Manipur, Jammu & Kashmir, Goa and Assam and in remaining States it is moderate. Forty per cent of sample farmers have membership in cooperatives at all India level.

In the case of States such as Andaman & Nicobar, Chhattisgarh, Haryana, Maharashtra, Rajasthan, UP and Uttarakhand, participation in Cooperatives is found to be the highest. In Assam, all the sample farmers have membership in only Self Help Groups (SHGs). Some farmers are also members of Gram Panchayat in the States such as Meghalaya, Rajasthan, Goa and Uttarakhand (Table 3.9)

Table-3.9: Status of Social Participation of Sample Farmers in Selected States of India (%)

Sl. No.	State	Members in social organisations	Percent Share of Members organisation wise in total members of social organisation			
			Cooperatives	SHGs/FIG/CIG/FPOs	Gram Panchayats	Any other
1	Andaman Nicobar	25	**100**	1	2	-
2	Assam	27		**78**	0	22
3	Chhattisgarh	**76**	**99**	0	1	0
4	Goa	10	60	20	20	0
5	Haryana	**69**	**83**	12	4	1
6	Himachal Pradesh	**82**	**77**	6	0	0
7	Jammu & Kashmir	15	6	4	5	0
8	Kerala	**76**	21	**58**	8	13
9	M.P	38	42	39	16	3
10	Maharashtra	48	**79**	10	10	0
11	Manipur	8	13	38	0	**50**
12	Meghalaya	50	18	**50**	**40**	0
13	Odisha	9	1	0	5	0
14	Puducherry	59	41	42	7	10
15	Rajasthan	**80**	68	3	**30**	0
16	SIKKIM	63	30	**57**	3	10
17	Tripura	**70**	0	**50**	13	0
18	Uttara Pradesh	**90**	**77**	0	23	0
19	Uttarakhand	47	**91**	9	0	0
	Total	**766 (40%)**	**759 (40%)**	**463 (24%)**	**187 (10%)**	**114 (6%)**

Source: Field Data
Figures in the parentheses are percentage shares

The pattern of social participation may be kept as a basis for designing the State specific strategies for creating awareness about the PMFBY scheme. Say for

example, SHGs in the State of Assam may be focussed as a unit of creating awareness likewise for cooperative as a means of creating awareness may be focussed.

3.2.2 Mass Media Exposure and Information Flow:

Mass media exposure is referred to the degree to which the mass media sources such as a radio, television, newspaper, exhibition, agricultural films, and agricultural journals were utilized to get more information by the respondents. This variable was measured in terms of frequency and purpose for which the contact was made with mass media. The data was analysed and the results are presented in Table 3.10.

Table-3.10: Distribution of Sample Farmers as Per Mass Media Exposure

Sl. No.	Category of Exposure	Number of Farmers	Percent
1.	Low	361	19
2.	Medium	1121	59
3.	High	418	22
	Total	**1900**	**100**

It could be inferred from the above Table 3.10 that 59 per cent of the sample farmers had medium level of exposure followed by 22 per cent of farmers with high level of exposure and 19 of them had low level of mass media exposure. Majority of the farmers possessed various media sources like newspaper, magazines, television and radio sets, but they were frequently using these media sources for gathering agricultural information.

However, it is encouraging to note that majority of the farmers have got exposure to one or the other mass media sources. Under such circumstances, it becomes easy task for creating awareness about PMFBY scheme using the sources which are accessed by the farmers.

Table-3.11: Distribution of Sample Farmers according to Mass media exposure & Information Source for All Selected States of India

Sl. No.	Source of Information	Number of Farmers	Percentage	Rank
1.	Television	634	33.3	I
2.	Gram Sabha	524	27.6	II
3.	Social media	506	26.6	III
4.	Kisan Call Centers (KCC)	410	21.6	IV
5.	Radio	408	21.5	V
6.	Farm magazines / News Paper	325	17.1	VI

The data presented in the Table-3.11 clearly indicate that Television among the Mass Media sources was the foremost source of information for agricultural purposes used by 33 per cent of respondents at all India level (634 farmers out of 1900 farmers). Gram Sabha as a source of information was used by 27 percent of the farmers. Social Media through Mobile phone (26.6%) and Kisan Call Centre (21.6%) occupied third and fourth position followed by Radio (21.5%), and Farm Magazines and News Paper (17%). It is pertinent to note that in spite of advent of ICT, Television and Radio till date are the important sources of information.

The State wise analysis on Mass Media Exposure (Table 3.12) revealed that Farm Magazines and Newspapers are observed to be important source of agricultural information to farmers in the States of Maharashtra and Goa for 63 per cent and 40 per cent of sample farmers, respectively. It is not an important source of information in the States such as Himachal Pradesh, Rajasthan, Madhya Pradesh, and Odisha. In the case of Andaman Nicobar, sample farmers largely depend on Television (57%) as a source of information followed by radio (34%) and gram Sabha (15%). The farmers in this UT seems to have low exposure of social media and KCC.

In the case of Assam, one fourth sample farmers only have exposure of Television and Social Media and little exposure through KCC, Gram Sabha and Farm Magazines and News Papers. Television is found to be the most important source of agricultural information to sample farmers of Haryana, Chhattisgarh, Madhya Pradesh, Sikkim, UP and Uttarakhand. Mass Media exposure is very low in the case of Madhya Pradesh where less than 10 per cent of sample farmers have used them sources for getting agricultural information. In the case of Himachal Pradesh, only four per cent of farmers obtained information from Farm Magazines and Newspapers, 43 per cent from radio channels and 87 per cent from other sources.

Table-3.12: Distribution of Sample Farmers according to Mass media exposure for Agricultural Programmes in Selected States of India (%)

Sl. No.	State	Farm magazines /News Papers	Radio	Television	Social media	Kisan Call Centres (KCC)	Others
1.	Andaman Nicobar	5	34	**57**	3	0	15
2.	Assam	7	5	25	27	14	16
3.	Chhattisgarh		1	35	7	1	27
4.	Goa	**40**	**44**	15	26	**44**	40
5.	Haryana	35	18	**56**	31	**41**	**55**
6.	Himachal Pradesh	4	**43**	3	0	0	**87**
7.	Jammu & Kashmir	5	7	15	11	2	50
8.	Kerala	5	7	15	11	2	28
9.	Madhya Pradesh	1	2	8	4	4	2
10.	Maharashtra	**63**	21	24	18	24	19
11.	Manipur	28	**40**	39	24	8	30
12.	Meghalaya	15	12	12	16	7	6
13.	Odisha	1	1	22	10	0	42
14.	Puducherry	31	39	28	5	3	25
15.	Rajasthan	0	1	**57**	22	1	16
16.	SIKKIM	28	29	66	**59**	22	34
17.	Tripura	18	36	36	23	11	40
18.	U.P.	19	36	**60**	44	41	**51**
19.	Uttarakhand	24	**75**	**64**	**65**	85	28
	Total	**325 (17.1)**	**408 (21.5)**	**634 (33.3)**	**506 (26.6)**	**410 (21.6)**	**524 (27.6)**

Source: Field Data
Note: Figures in parentheses are percentage shares in total sample

Hence, these information may be focussed while creating awareness about the PMFBY scheme. A flash advertisement during prime time programs and entertainment programs could be used to disseminate the information. DD Kissan may be effectively used for this purpose. Other than radio and television, the State specific strategies may be adopted depending on the major source of respective States. The detailed specific strategies are suggested at the end of this chapter.

3.2.3: Source-wise Information Flow pattern for PMFBY to the Sample Farmers across the States:

Information plays a crucial role in enhancing the awareness levels of a stakeholders in a particular sector. It is true with agriculture sector as well. Farmers invariably require clear, accurate, current and context-specific information for informed decision making. Understanding the information dynamics of farmers is vital for policymakers to design and implement tailor made extension strategies to bring awareness about the schemes in general and about PMFBY in the present study. Farmers rely mainly on personal experiences and knowledge and as well as interactions with informal peer groups (e.g., relatives, trusted input dealers and local retailers) for making important farming decisions. Knowledge emerging through social interaction tends to win over other sources of information because of reliability and accessibility of informal contacts.

Table-3.13: Source wise Information Flow to the Sample Farmers across the States

Sl. No.	Source	Number of Farmers	Percentage
1.	Friends & Relatives	531	30
2.	Progressive Farmers	552	29
3.	Cooperatives	450	27
4.	Mass Media	452	27
5.	Panchayat	402	21
6.	Extension Officers	402	21
7.	Banks	378	20
8.	Social Media	358	19
9.	Input Dealers	330	17
10.	Farmer Producer Organisations	201	11
11.	Regulated Markets	140	7
12.	Non-Government Organisations	121	6
13.	IEC Vans	106	5

Source: Field Data

Farmers are often more receptive to information coming from informal contacts. Sample farmers are getting information mainly from friends and relatives, progressive farmers, cooperatives, mass media, panchayats, banks, extension officers and to some extent from social media. The information flow from informal sources

(Table-3.13) such as progressive farmers, and friend and relatives is 29 and 30 per cent respectively. Among the formal sources, the most important source is found to be cooperatives, banks and panchayats with 27, 20 and 21 per cent respectively. The contribution of IEC Vans, regulated markets and NGOs in bringing awareness levels is found to be very low. Mass Media and Social Media could provide awareness to about 46 per cent of the respondents.

The State-wise analysis revealed that in North eastern States such as Meghalaya the maximum information is flown from friends and relatives, social media, cooperatives, extension officers and banks. Other sources such as progressive farmers, input dealers, FPOs, Panchayat, IEC Vans and so on are almost negligible. In the case of Assam and Sikkim, the sample farmers are getting information from all sources, whereas, in the case of Manipur, information flow from mass media and other sources are negligible. In the case of Tripura, the information from informal sources is totally absent and a significant quantum of information has flown from the banks (82%) followed by social media and mass media. In the case of Odisha, a significant number of sample farmers were obtaining information from regulated markets, where, as from other sources information flow is almost absent (Table 3.14).

In the State of Maharashtra, though all the farmers are getting information from all the sources, the major sources of information is found to be progressive farmers, friends and relatives and input dealers with more than 60 per cent of the sample farmers obtaining information from these three sources. This is also true in the case of Rajasthan except input dealers. Cooperatives are playing very important role in disseminating information to farmers of Rajasthan. Among the North Indian States, Haryana and Uttara Pradesh have received information from all the sources. Farmers of Jammu & Kashmir, Himachal Pradesh and Puducherry have received information majorly from extension officers, whereas, in Andaman & Nicobar, banks are the major source of information.

Table-3.14 Source wise and State wise Information Flow of PMFBY to Sample Farmers

Sl. No.	States	PF	FR	ID	E0	FPO	COP	PR	Banks	IV	NGO	RM	MM	SM
	North Eastern States													
1.	Meghalaya	0	51	0	36	0	50	1	38	0	1	1	2	40
2.	Assam	55	64	42	16	16	17	39	25	15	11	10	32	40
3.	Manipur	0	0	2	0	0	1	0	0	0	1	1	33	38
4.	Sikkim	61	40	22	89	25	13	67	3	6	4	1	22	30
5.	Tripura	0	0	0	0	46	33	11	82	4	17	4	48	58
	Eastern States													
6.	Odisha	0	0	0	0	1	5	3	0	0	4	28	2	7
7.	Chhattisgarh	1	6	0	9	1	9	1	0	0	0	0	0	0
	Western States													
8.	Maharashtra	66	64	68	34	33	36	32	19	20	10	9	38	17
9.	Rajasthan	84	65	5	1	7	87	85	36	1	1	1	42	7
10.	Goa	16	3	2	8	4	8	4	2	3	8	5	6	3
11.	M.P	29	49	24	14	2	21	23	6	10	33	11	48	18
	Northern States													
12.	Haryana	83	78	54	45	3	56	53	31	3	0	3	20	23
13.	Himachal Pradesh	13	30	82	98	0	1	1	95	2	1	0	1	96
14.	J&K	19	17	8	65	1	0	5	2	0	0	0	1	0
15.	U.P.	56	48	59	24	15	57	43	25	29	10	15	44	17
16.	Uttarakhand	3	3	10	10	9	7	10	11	1	2	0	8	0
	Southern States													
17.	Kerala	50	12	18	45	3	13	15	10	3	0	1	62	45
	UTs													
18.	Andaman	0	0	0	0	20	21	2	69	1	2	41	2	5
19.	Puducherry	29	31	16	61	15	16	8	19	10	17	9	42	10
	Overall	**552 (29)**	**531 (28)**	**330 (17)**	**402 (21)**	**201 (11)**	**450 (24)**	**402 (21)**	**378 (20)**	**106 (6)**	**121 (6)**	**140 (7)**	**452 (24)**	**358 (19)**

PF: Progressive Farmers; FR : friends & relatives; ID input dealers; EO: extension officers; FPO: Farmer Producer Organisation; COP: Cooperatives; PR : Panchayat Raj; IV: IEC Vans RM : Regulated Markets; MM : Mass Media; SM: Social Media

Source: Field Data

Note: Figures in parentheses are percentage shares in total sample

To sum-up, understanding the information dynamics of farmers is vital for policymakers to design and implement tailor made extension strategies to bring awareness about the need for PMFBY. This is a diversity among the different sources and pattern of obtaining the information by the farmers from different sources. Hence, State specific Strategies should be framed for effective dissemination of information. Farmers rely mainly on personal experiences and knowledge as well as

interactions with informal peer groups (e.g., relatives, trusted input dealers and local retailers) for making important farming decisions.

3.3 Impact of Mega Awareness Campaigns on Extent of Awareness and Enrolment

3.3.1 Awareness Levels about Prime Minister Fasal Bima Yojana (PMFBY)

The existing literature on crop insurance shows low take-up of insurance. It may be because of absence of demand due to lack of awareness about its existence (Da Costa 2013) and in a developing country like India, where coverage by any kind of insurance is low. Farmer households may not have adequate understanding of the operational intricacies of a formal risk management instrument like crop insurance (RBI 2017). Several participants pointed out that the lack of awareness among farmers about the mechanism of crop insurance leads to lower participation, adverse selection, and dissatisfaction among those who do participate. The *Economic Survey* of the Government of India set the building of awareness for higher coverage of crop insurance as a priority (GoI 2018). Premium price has been found to be the most important factor affecting crop insurance demand (J-PAL, CEGA, and ATAI Policy Bulletin 2016).

All the studies found that there was very low take-up when crop insurance when sold at market price, and estimated high price elasticity of demand for the products. There are also several non-price factors that affect take-up. Cole *et al.* (2013) found that the trust towards agents who sell insurance and also towards the company that sells the product is an important factor. The ability to perform basic mathematical calculations is positively correlated with understanding of an insurance product, and thus take-up (Cole, Stein, and Tobacman 2014). The presence of basis risk, or the potential gap between actual loss incurred and pay out received, is another important factor behind lack of demand.

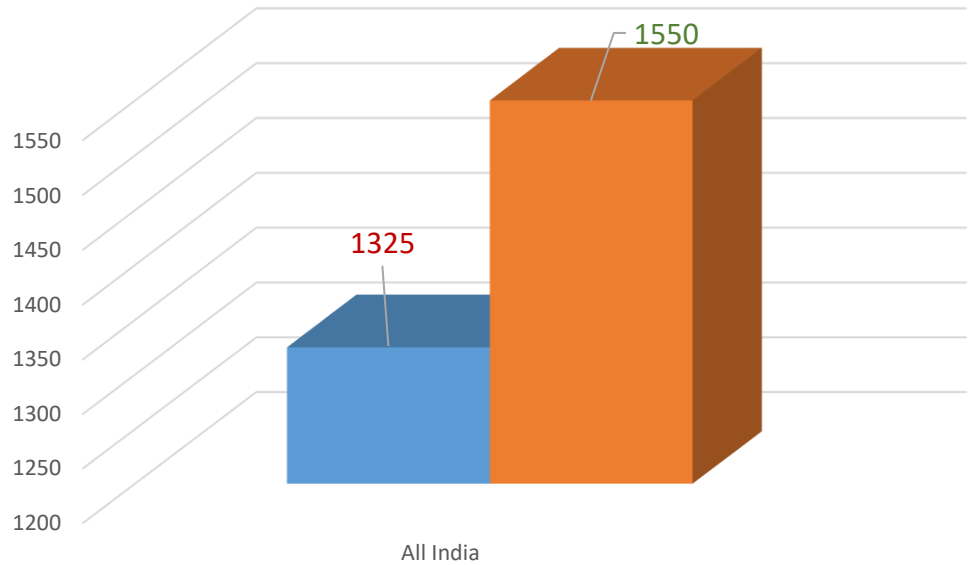
It is thus, important to find out the extent of awareness and enrolment of farmers under PMFBY and analyse the reasons for the lack of awareness and enrolment and to suggest possible ways to improve it. In this Chapter, the survey results of the pre and post campaign survey conducted covering 1900 farmers from

38 districts of 19 States[2] are discussed. Various statistical techniques such as frequencies, mean, cross tabs and multivariate logistic regression were employed to analyse the awareness, enrolment and factors that contribute towards awareness about crop insurance and enrolment.

3.3.2 Status of Awareness Levels during 2022:

In this section, an attempt is made to analyse the status of awareness levels in the pre and post *Rabi* Campaign period of 2022. The analysis was done both at all India level and State level. The results presented in the Figure-1 revealed that out of 1900 farmers, 1325 farmers were aware about PMFBY before the campaign, means 70 per cent are aware of PMFBY across all 19 selected States before *rabi* campaign of 2022. Due to the concerted efforts of the Government in creating awareness on PMFBY since 2016, the awareness levels before the *rabi* campaign of 2022 is found out to be at 70 per cent at all India level.

Fig 1 Number of Sample Farmers Aware of PMFBY For All Selected States of India



[2] Ministry of Agriculture & Farmers' Welfare has organised Rabi Crop Insurance Week and 360 degree mega awareness campaign during the month of December, 2022. This survey of 1900 farmers from 19 States and 38 districts was conducted before this campaign viz during the month of November 2022. An attempt is made to assess any significant impact of these campaigns on awareness levels and enrolment by sample farmers across 19 selected States.

Table-3.15: Level of Awareness of PMFBY (Pre and Post Campaign) among Sample Farmers in Selected States of India (%)

Sl. No.	States	Number of Farmers Aware PMFBY		Change
		Pre Campaign	Post Campaign	
1.	Assam	63	83	20
2.	Andaman Nicobar	61	76	15
3.	Chhattisgarh	77	84	7
4.	Goa	6	48	42
5.	Haryana	83	86	3
6.	Himachal Pradesh	80	100	20
7.	Jammu & Kashmir	82	100	18
8.	Kerala	89	90	1
9.	Madhya Pradesh	74	74	0
10.	Maharashtra	76	86	10
11.	Manipur	51	52	1
12.	Meghalaya	97	100	3
13.	Odisha	50	65	15
14.	Puducherry	72	84	12
15.	Rajasthan	93	100	7
16.	Sikkim	99	100	1
17.	Tripura	89	90	1
18.	Uttar Pradesh	63	98	27
19.	Uttarakhand	20	24	4
	Total	**1325 (70%)**	**1550 (82%)**	**12%**

Source: Field Data
Note: Figures in parenthesis are percentage shares in total

However, this number has increased to 1550 that is 82 per cent after the mega awareness campaign is conducted during the *rabi* Period (Table-3.15) and (Fig-1). **Thus there is a significant increase in awareness levels by 12 per cent on account of mega awareness campaign organised by Government of India during *rabi* season with the involvement of various stakeholders in its implementation.**

3.3.2.1: State-wise status of awareness level about PMFBY

On the basis of the extent of awareness, the States are classified into five categories viz. very low (less than 50%), low (50% to 65%), moderate (70% to 80%), high (80% to 90%), and very high (above 90%). This exercise is carried out both before the mega awareness campaign and after the mega awareness campaign conducted

just before the *Rabi* Season of 2022. Two States i.e. Goa and Uttarakhand are observed in the category of very low awareness levels both before and after the campaign. However the awareness levels have gone up 20% to 24% in Uttarakhand and from 6% to 48% in case of Goa though they remained at very low (Table 3.16). The higher rate of increase in awareness level of Goa State is on account of low base.

Table-3.16: Level of Awareness of PMFBY (Pre and Post Campaign) among Sample Farmers in Selected States of India (%)

S.No		STATE	PRECAMPAIGN		STATE	POST CAMPAIGN	Direction of Change
1		Goa	6		Uttarakhand	24	=
2	Very Low	Uttarakhand	20	Very Low	Goa	48	=
3		Odisha	50	Low	Manipur	52	=
4		Manipur	51		Odisha	65	↑
5		Andaman Nicobar	61	Moderate	Madhya Pradesh	74	=
6	Low	Assam	63		Andaman Nicobar	76	↑
7		Uttar Pradesh	63		Assam	83	↑
8		Puducherry	72	High	Chhattisgarh	84	↑
9	Moderate	Madhya Pradesh	74		Puducherry	84	↑
10		Maharashtra	76		Haryana	86	=
11		Chhattisgarh	77		Maharashtra	86	↑
12		Himachal Pradesh	80		Tripura	90	↑
13	High	Jammu & Kashmir	82		Kerala	90	↑
14		Haryana	83		Uttar Pradesh	98	↑
15		Tripura	89	very High	Meghalaya	100	=
16		Kerala	89		Sikkim	100	=
17		Rajasthan	93		Himachal Pradesh	100	↑
18	Very High	Meghalaya	97		Rajasthan	100	=
19		Sikkim	99		Jammu & Kashmir	100	↑
		Total	**1325 (70%)**		**Total**	**1550 (82%)**	↑

Note: = No change in category, ↑ change to higher category

Source: Field Data

Note: Figures in parentheses are percentage shares in total sample

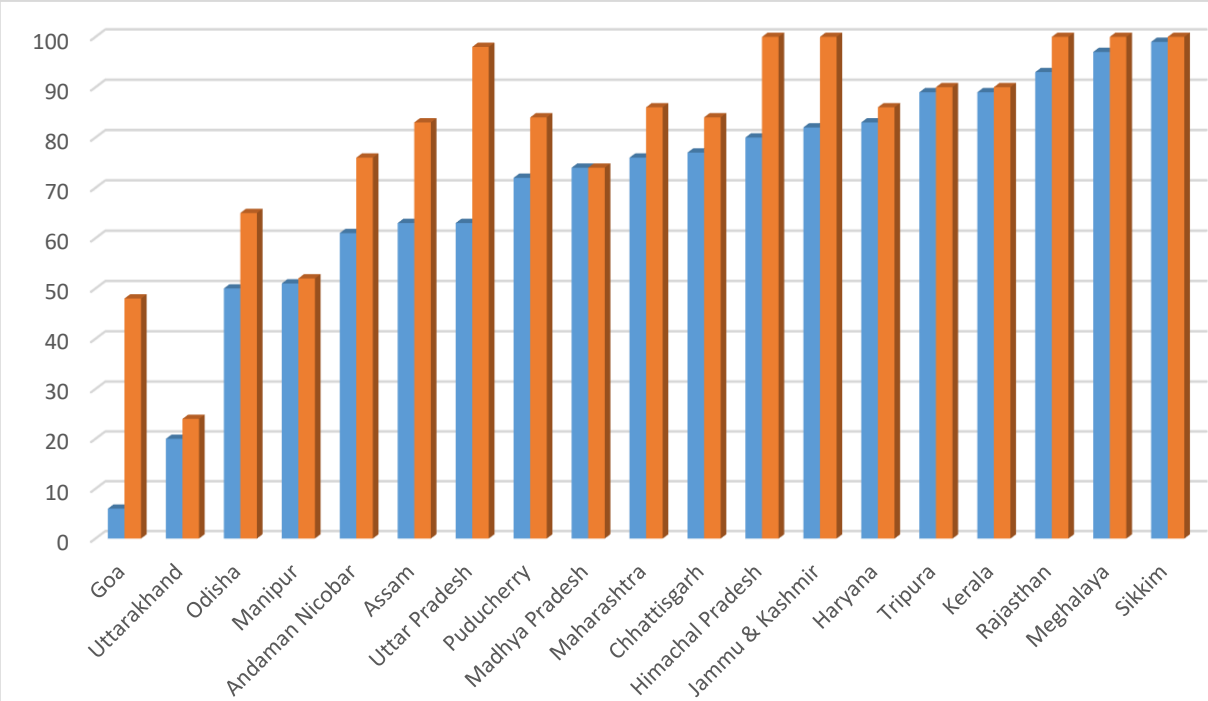


Fig 2 Awareness Levels of PMFBY State Wise

States UTs such as Odisha, Manipur, Andaman & Nicobar, Assam and Uttara Pradesh are found to be in low category before undertaking the Mega Awareness Campaign (*Rabi* 2022) with the awareness around 50 to 60 per cent in these States. Manipur State remained at the low category even after the campaign with only a slight increase by 1% from pre campaign to post campaign. Odisha has moved to moderate category, Andaman & Nicobar and Assam have moved to high category and Uttara Pradesh has moved to very high category with the awareness levels increased from 63% to 98%. Puducherry, Maharashtra, Madhya Pradesh and Chhattisgarh are found in the moderate category with awareness levels ranging from 72% to 77% in the pre campaign period. Awareness levels in Madhya Pradesh are maintained at 74% both pre and post campaign.

All other three States viz Puducherry, Maharashtra and Chhattisgarh are moved to high awareness level category with an increase of about 10% from pre campaign. Himachal Pradesh, Jammu & Kashmir, Haryana, Tripura and Kerala are

having high awareness levels in pre campaign period with the awareness levels ranging from 80% to 90%. Only with the exception of Haryana, all these States have moved to very high awareness level category with more than 90 per cent level of awareness in the post campaign period.

Rajasthan, Meghalaya and Sikkim who have already very high awareness levels before the *Rabi* 2022 campaign reached almost 100% awareness after the mega awareness campaign (Table 3.16).

Increase in awareness levels in North eastern States such as Manipur, Meghalaya, Sikkim and Tripura is less than 10 per cent. This is because, the awareness levels in the pre *Rabi* campaigns are already very high in these States except in Manipur. So there is a little scope to enhance awareness levels in these States. In Assam awareness levels have gone up by 20 per cent from 63 per cent in pre *Rabi* campaign to 83 per cent in post *Rabi* campaign. Only in the case of Manipur, the awareness levels are not only low but also increased only by one percent from 51 per cent to 52 percent.

Among the North Indian States, Himachal Pradesh and Haryana witnessed awareness levels of 80 per cent and 83 per cent respectively in the pre *rabi* campaign and which is increased by 20 per cent in Himachal Pradesh and 3 per cent in Haryana in post *Rabi* campaign. Madhya Pradesh and Chhattisgarh respectively have 74 and 77 per cent awareness levels in the pre campaign. However, there is no increase of awareness levels in Madhya Pradesh and only 7 per cent increase in Chhattisgarh was noticed after the campaign. The highest increase can be noticed in the case of Uttara Pradesh between pre and post campaign from 63 per cent to 98 per cent. In the case of Uttarakhand, the awareness levels are observed at 20 per cent before the campaign but did not pick up well even after the campaign. Some serious efforts have to be made to increase awareness in Udham Singh Nagar and Nainital districts of Uttarakhand (Appendix).

The highest awareness levels are observed in the case of Rajasthan with 93 per cent of sample farmers aware of the Scheme. The remaining seven percent of the

farmers came to know about the benefits of the scheme after the initiation of mega awareness campaign. Maharashtra being the number one State in terms of enrolment, still there is a huge scope to increase the awareness levels as the awareness levels are 76 and 86 per cent in the pre and post campaign respectively. In the case of Goa, though out of 100 sample respondents only 6 were aware of the scheme before the *Rabi* campaign, this number is picked by 48 per cent after the campaign is carried out. So there is still a better scope to improve the awareness levels in the State of Goa.

The field data shows that in the case of Odisha, the awareness levels are 50 and 65 per cent in pre and post campaign respectively with an increase of only 15 per cent. Only Kerala State was selected from southern Indian States. In this State, awareness levels have gone up by one per cent from pre campaign to post campaign i.e., 89 per cent to 90 per cent. The awareness levels in both the selected districts of Kerala viz., Palakkad and Pathanamthitta are very high (Appendix). Among the Union Territories, awareness levels are highest in the case of Jammu & Kashmir and lowest in the case of Andaman & Nicobar. From Jammu & Kashmir, the two districts viz., Jammu and Samba the awareness levels in the post campaign period increased from 82 per cent to 100 per cent. In the case of Puducherry, though the awareness levels are 72 in the pre campaign and 84 in the post campaign, the Karaikal district has shown 100 per cent awareness before and after the campaign. In Andaman & Nicobar it has increased from 61 to 76 in the pre and post campaign respectively.

To put it in nutshell, awareness levels have gone up in all the selected States of India due to mega awareness campaigns organised country wide. However, the magnitude of the impact of the campaign is different in different States and districts. In States such as Manipur, Meghalaya, Sikkim, Tripura, Chhattisgarh, Haryana, MP and Rajasthan awareness levels have gone up by less 10 per cent. This is partly because in all the States (except Manipur) the awareness levels are very high in the pre campaign period itself. So there is not much scope to increase the level of awareness about PMFBY. In the case of Maharashtra and Puducherry, awareness

levels have gone up between 10 to 20 per cent. In the case of Uttarakhand, Himachal Pradesh, Odisha, Kerala, Andaman & Nicobar and Jammu & Kashmir, the awareness level has gone up between 21 to 30 per cent. In the case of Uttara Pradesh and Goa, it has gone up more than 50 per cent due to low awareness levels in pre campaign period in these States (Table-3.17). Hence, in these States, the post rabi campaign has been more effective in increasing the level of awareness compared to other States.

Table-3.17 Comparison of Pre and Post Campaign PMFBY Awareness Levels

S.No	Change in Awareness Levels From Pre Campaign to Post Campaign	Name of the State
1	Increase less than 10%	Manipur, Meghalaya, Sikkim, Tripura Chhattisgarh, Haryana, MP, Rajasthan
2	Increase between 10% to 20%	Maharashtra, Puducherry
3	Increase between 21% to 30%	Uttarakhand, Himachal Pradesh, Odisha, Kerala, A&N, J &K
4	Increase between 31% to 40%	Assam
5	Increase between 41% to 50%	-
6	Increase Greater than 50%	Uttara Pradesh, Goa

Source: Field data

To sum up mean awareness level of all 19 selected States is 65 per cent. Mean plus standard deviation is taken as States having high awareness levels and mean minus standard deviation is treated as States with low awareness levels. The high awareness States are with the awareness level of 90 per cent and low awareness level States are with the awareness levels of 50 per cent. States with the awareness level around the mean are taken as medium awareness levels. Based on this criteria States are segregated into low, medium and high awareness levels of PMFBY in Pre Campaign and Post Campaign period.

3.3.2.2: State-wise Classification of Status of Awareness level about PMFBY

It is observed from the Table-3.18 that Uttarakhand, Manipur, Goa and Odisha fell under the category of low awareness level States in pre campaign period. With the exception of Odisha all these States appeared to be under the low awareness level category even after the mega awareness campaign. Odisha State was moved to the medium category level in the post campaign period from low category in the pre campaign period. Assam, Madhya Pradesh, Andaman & Nicobar, Chhattisgarh, UP, Maharashtra and Puducherry were in the medium category which means around the average of 19 selected States before the mega awareness campaign. After the campaign Assam, Madhya Pradesh, and Andaman & Nicobar States have occupied the same position. However, Chhattisgarh, UP, Maharashtra, and Puducherry States moved to the high awareness category. States such as Meghalaya, Sikkim, Himachal Pradesh, Rajasthan, Kerala and Haryana remained in the high category both in pre and post campaign period.

Table-3.18: Classification of the States as per the Level of Awareness about PMFBY

Pre Campaign			Post Campaign		
Low	Medium	High	Low	Medium	High
Uttarakhand	Assam	J & K	Uttarakhand	Odisha	J & K
Manipur	MP	Meghalaya	Manipur	Assam	Meghalaya
Goa	A & N	Sikkim	Goa	MP	Sikkim
Odisha	Chhattisgarh	Tripura		A & N	Tripura
	UP	Himachal Pradesh			Himachal Pradesh
	Maharashtra	Rajasthan			Rajasthan
	Puducherry	Kerala			Kerala
		Haryana			Chhattisgarh
					UP
					Maharashtra
					Puducherry
					Haryana

Source: Field data

3.3.3 Relationship between Awareness Levels with the Socio Economic Profile of Sample Farmers

Socio economic factors such as age, education, caste and size of holding play a very important role in knowing aware of innovations and adopting them. These innovations in this context is insuring the crop by paying the prescribed premium amounts. To increase awareness levels through a better strategy, it is important to understand the relationship between awareness levels of PMFBY with the socioeconomic profile of sample farmers.

Table-3.19: Relationship between Age and Awareness of PMFBY (%)

Sl. No.	State	< 40 years	40 to 59 years	>60 years	Total
1.	Andaman & Nicobar	21	30	10	61
2.	Assam	39	21	3	63
3.	Chhattisgarh	19	42	16	77
4.	Goa	1	5	0	6
5.	Haryana	27	41	15	83
6.	Himachal Pradesh	25	50	5	80
7.	Jammu & Kashmir	27	50	5	82
8.	Kerala	6	47	36	89
9.	M.P	26	37	11	74
10.	Maharashtra	12	51	13	76
11.	Manipur	14	32	5	51
12.	Meghalaya	49	38	10	97
13.	Odisha	25	28	7	50
14.	Puducherry	6	34	32	72
15.	Rajasthan	31	43	19	93
16.	SIKKIM	34	43	22	99
17.	U.P.	19	29	16	63
18.	Uttarakhand	6	12	2	20
19.	**Total**	**450 (34%)**	**638 (48%)**	**23 (18%)**	**1325 (100%)**

Source: Field Data
Note: Figures in parentheses are percentage shares in total sample

At All India level, the highest level of awareness (48%) is found in the age group of 40 to 59 years followed by 34% in the age group of below 40 and 18% awareness is observed among sample farmers in the age group of above 60.

However, this scenario of the farmers with the age group of above 60 having awareness level of 18% is present only in the case of Sikkim, Rajasthan, and Kerala. In all most all States, the highest awareness is found in the age group ranging from 40 to 59. So there is a need to customize the creation of awareness among the farmers below 40 and above 60 to provide awareness programmes (Table 3.19).

Table-3.20: Relationship between Caste and Awareness level about PMFBY (%)

Sl. No.	State	SC	ST	OBC	OC	Total
1.	Andaman			61		61
2.	Assam	1	2	39	21	63
3.	Chhattisgarh	7	20	44	6	77
4.	Goa		0	4	2	6
5.	Haryana	19		18	46	83
6.	Himachal Prad				80	80
7.	J&K	26	1	5	50	82
8.	Kerala	6		39	44	89
9.	M.P	24	2	32	16	74
10.	Maharashtra	3		16	57	76
11.	Manipur		5	37	9	51
12.	Meghalaya		97			97
13.	Odisha	1	1	47	1	50
14.	Puducherry	6		63	3	72
15.	Rajasthan	11	20	56	6	93
16.	SIKKIM	1	38	24	36	99
17.	Tripura	6	46	28	9	89
18.	U.P.	2	1	19	42	63
19.	Uttarakhand	2	2	7	9	20
20.	**Total**	**115 (9%)**	**235 (18%)**	**539 (41%)**	**357 (27%)**	**1325 (100%)**

Source: Field Data

Note: Figures in parentheses are percentage shares in total sample

The awareness levels are the highest (41%) among the OBC category of farmers followed by OC with 27% at all India level. The least awareness levels are found in the case of SC category with 9% and ST with 18%. Across all States, OBC and OC Category are well aware of PMFBY (Table 3.20). There is a need to increase awareness levels by bringing specially focused awareness programs for SC and ST.

Table-3.21: Level of Education Versus Awareness Levels of PMFBY for all 19 States

Sl. No.	Education	Aware of PMFBY		% of Sample Farmers
		Number	Percent	
1.	Illiterate	200	10.5	19
2.	10th Class	630	33.2	49
3.	Intermediate	221	8.7	14
4.	Graduation	180	9.5	12
5.	Post-Graduation	47	2.5	3
6.	Others	47	2.5	15
7.	**Total**	**1325**	**67**	**100**

Source: Field Data

The sample data shows that 363 (19%) farmers are illiterates but 200 farmers are having awareness levels which means out of 19 per cent of sample illiterate farmers, 11 per cent of them are having awareness of PMFBY. The Farmers with 10th class back ground are having highest awareness levels with 33% and their share in total sample size is 49%. About 10 percent of graduates farmers and three per cent of Post-graduate also are aware of PMFBY. Not much significant difference is found in the awareness levels when we move across education levels (Table-3.21).

3.3.4 Enrolment in PMFBY

PMFBY aims at supporting sustainable production in agriculture sector by way of providing financial support to farmers who are suffering from crop loss/damage arising out of unforeseen events. The scheme also aims at stabilizing the income of farmers to ensure their continuance in farming, encouraging farmers to adopt innovative and modern agricultural practices and ensuring flow of credit to the agriculture sector. In this Section, an analysis of field data on enrolment and status of claims effected is presented. Out of 1900 farmers from 19 selected States of India, 45 percent of the farmers have enrolled in PMFBY before the *rabi* (849 farmers) campaign. Of these total 849 enrolled farmers, only 232 (27.6 % of 849) farmers have claimed the insurance amount due to crop damage on account of various reasons (Fig-4). All these farmers have enrolled in crop insurance for *Kharif* season of 2022.

Fig 3 : Status of PMFBY for Sample Farmers on Awareness, Enrolled and Claim in all Selected States before the Mega Awareness Campaign of 2022

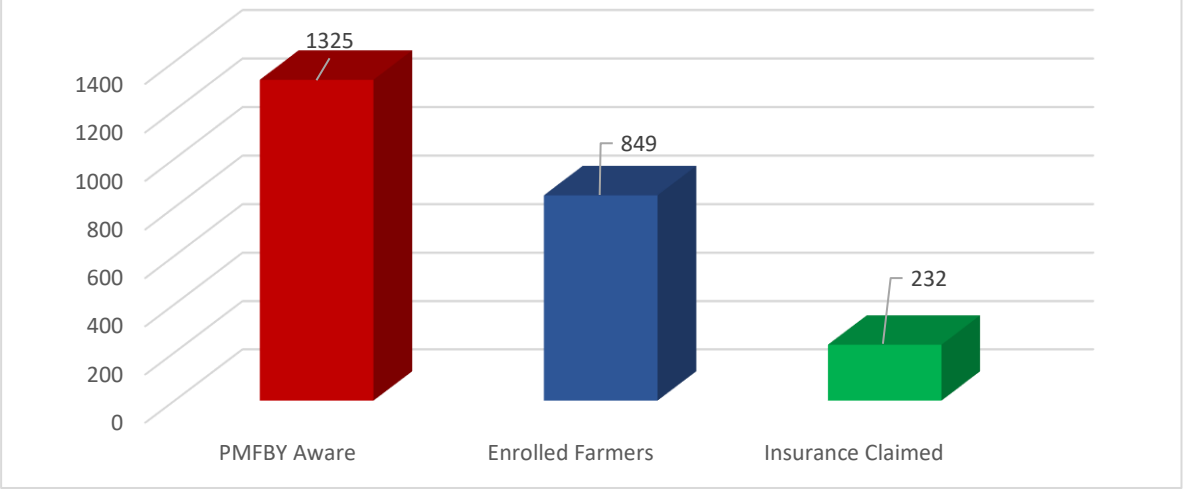


Table-3.22: Enrolment Levels in PMFBY across the Selected States of India

Sl. No.	Low	Medium	High
a)	Goa (1)	Tripura (63)	Meghalaya (97)
b)	Andaman Nicobar (8)	Haryana(62)	Rajasthan (86)
c)	Himachal Pradesh (75)		Sikkim (78)
d)	Uttarakhand (3)		Jammu & Kashmir (74)
e)	Assam (19)		
f)	Manipur (21)		
g)	Chhattisgarh (50)		
h)	Odisha (48)		
i)	Uttar Pradesh (48)		
j)	Madhya Pradesh (16)		
k)	Maharashtra (31)		
l)	Kerala (40)		
m)	Puducherry (59)		

Note: Figures in the parentheses are number of sample farmers

The State wise enrolled farmers were categorised into low, medium and high categories and the results are presented in the table-3.22.

The State-wise analysis of the enrolment v/s claim revealed that the States such as Meghalaya, Rajasthan, Sikkim, and Jammu & Kashmir have high enrolment.

Table-3.23: Status of Enrolment under PMFBY among Sample Farmers in Selected States of India

Sl. No.	Number of Farmers Enrolled					
	Category	States	Pre Campaign	Category	States	Post Campaign
1	Low	Goa	1	Low	Goa	0
2		Uttarakhand	3		Odisha	0
3		Andaman Nicobar	8		Uttarakhand	1
4		Madhya Pradesh	16		Manipur	1
5		Assam	19		Assam	16
6		Manipur	21		Madhya Pradesh	22
7		Maharashtra	31		Maharashtra	35
8		Kerala	40		Uttar Pradesh	37
9		Jammu & Kashmir	44		Kerala	40
10	Medium	Uttar Pradesh	48		Andaman Nicobar	43
11		Odisha	48	Medium	Chhattisgarh	51
12		Chhattisgarh	50		Tripura	51
13		Puducherry	59		Haryana	61
14		Haryana	62	High	Puducherry	78
15		Tripura	63		Sikkim	82
16	High	Himachal Pradesh	75		Rajasthan	94
17		Sikkim	78		Jammu & Kashmir	100
18		Rajasthan	86		Himachal Pradesh	100
19		Meghalaya	97		Meghalaya	100
		Total	**849**		**Total**	**912**
		% of enrolment	**45**		**% of enrolment**	**48**

Source: Field Data

In the case of Tripura and Haryana, medium level of enrolment was found. In the case of all other remaining States enrolment level is very low in the pre campaign scenario. In the case of Goa, low enrolment may be due to lack of awareness which was discussed in section 3.1. It is very surprising to note that despite high levels of awareness in some of the States such as Chhattisgarh, Himachal Pradesh, Kerala and Maharashtra, low enrolment levels are observed. Hence, for most of these States having high level of awareness though is a necessary condition but not sufficient

condition to enrol under PMFBY (Table 3.23). There are many other factors which would influence enrolment. These factors will be discussed in Section 3.4.

The results presented in the Table-3.24 reveals about the number of farmers enrolled in PMFBY during Pre and Post Campaign period. It increased from 849 to 912 with an increase of 63 farmers. However, it is also evident from the table that for some States, there is a fall or same enrolment of farmers in crop insurance from pre campaign to post campaign with the exception of Sikkim, Himachal Pradesh, Madhya Pradesh and Maharashtra, Rajasthan and Jammu & Kashmir. For all Union Territories increase is observed from pre campaign to post campaign. Reverse trend can be discern for all other States. This is because, most of the farmers cultivate only *Kharif* crops in India in general and the sample farmers in particular. Many of the farmers are aware of the PMFBY Scheme. Goa State has a Non-Premium Crop Insurance Scheme Called "Shetkari Aadhar Nidhi", if any farmer avail facility under any of the other Insurance schemes other than "Shetkari Aadhar Nidhi", then those farmers are not eligible for Shetkari Aadhar Nidhi Scheme, Hence no one has enroll their name under PMFBY though having awareness about PMFBY.

The enrolment as a percentage of awareness levels presented in the Table-3.24 shows that for all 19 selected States it is 62 per cent in pre campaign period and 49 per cent in post campaign period. With the exception of Manipur and Assam, it is more than 90 per cent in north eastern States such as Meghalaya, Sikkim and Tripura in pre campaign period. In Assam and Manipur in the post campaign period it is reduced drastically to 19 and 16 per cent from 63 and 51 respectively. Among the North Indian States in Haryana more than 80 per cent of farmers who are aware of PMFBY have enrolled in the pre campaign period followed by 77 and 63 per cent in Chhattisgarh and Uttara Pradesh respectively.

Table-3.24: Enrolment as Percentage of Awareness of PMFBY among Sample Farmers in Selected States of India

Sl. No.	States	Percentage of Farmers	
		Pre Campaign	Post Campaign
1.	Assam	30	84
2.	Andaman Nicobar	61	92
3.	Chhattisgarh	77	61
4.	Goa	6	0
5.	Haryana	83	71
6.	Himachal Pradesh	-	-
7.	Jammu & Kashmir	84	100
8.	Kerala	89	40
9.	Madhya Pradesh	74	30
10.	Maharashtra	76	41
11.	Manipur	41	50
12.	Meghalaya	100	97
13.	Odisha	50	40
14.	Puducherry	72	71
15.	Rajasthan	93	94
16.	Sikkim	79	100
17.	Tripura	70	71
18.	Uttar Pradesh	63	38
19.	Uttarakhand	20	4
	Total	**734**	
	Total	**62%**	**49%**

Source: Field Data

The least performing State is Uttarakhand both in terms of awareness and enrolment and only 20 per cent of the sample farmers who are aware have enrolled in pre campaign period and this number has been dropped drastically to 6 per cent in the post campaign period. In Western India only 76 per cent of farmers who are aware of the scheme is enrolled in the pre campaign period and drastic fall to 41 per cent in the post campaign period. Rajasthan has shown the highest awareness and enrolment among the selected States.

In the case of Odisha only 50 per cent of farmers who are aware of the Scheme have enrolled in the pre campaign period and it has fallen to 40 per cent in the post campaign period. Union territories such as Andaman, Puducherry and Jammu &

Kashmir are also doing well both in pre an post campaign period. However, as Stated earlier, the decline in the level of enrolments is on account of fewer crops cultivated during *rabi* season.

3.4: Insurance Claim Status:

From Table 3.25 it is clear that about 32 per cent of selected farmers have obtained crop insurance claim in the pre campaign survey.

Table-3.25: Insurance Claim Status of Sample Farmers

S.No	States	Pre campaign
1	Andaman Nicobar	2
2	Assam	15
3	Chhattisgarh	9
4	Goa	6
5	Haryana	37
6	Himachal Pradesh	-
7	Jammu & Kashmir	3
8	Kerala	1
9	Madhya Pradesh	13
10	Maharashtra	16
11	Manipur	
12	Meghalaya	6
13	Odisha	48
14	Puducherry	31
15	Rajasthan	1
16	Sikkim	35
17	Tripura	7
18	Uttar Pradesh	8
19	Uttarakhand	1
	Total	**232 (32%)***

Note: Figures in parenthesis are percentage shares in total sample farmers of 1900 % share of claimed in number of enrolled farmers for PMFBY

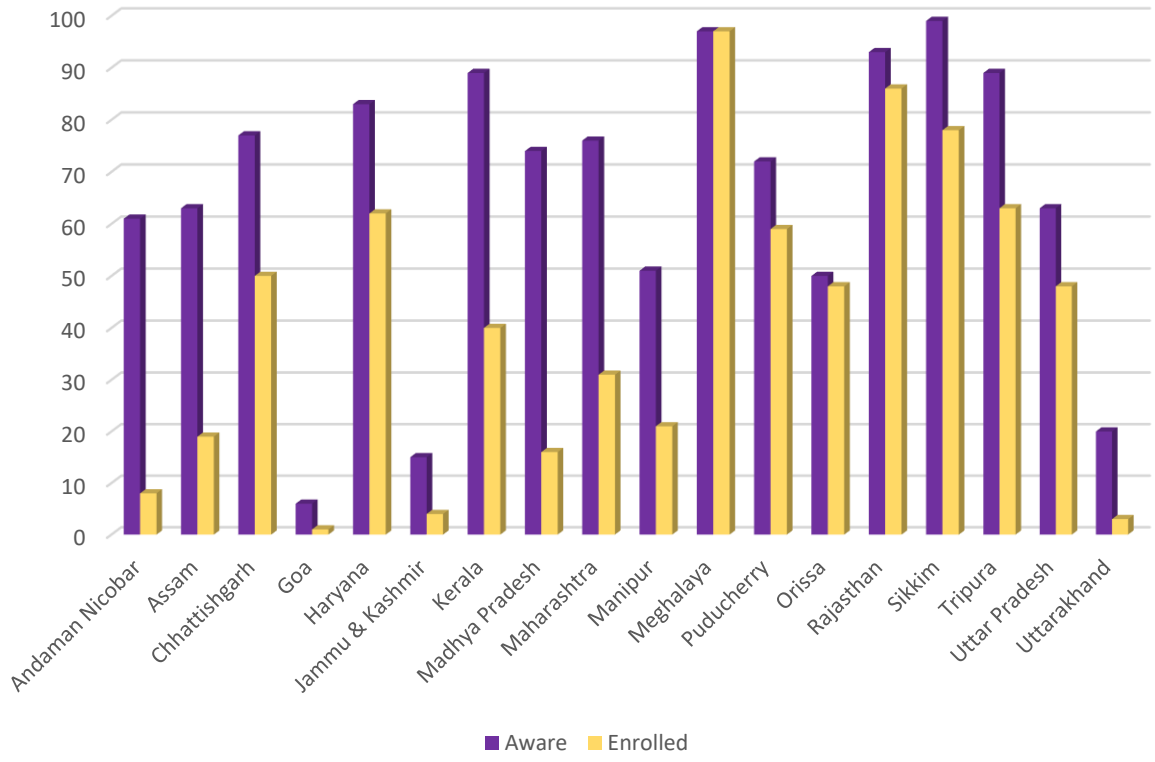
The insurance claim status is the highest in the case of Odissa. Out of 50 sample enrolled farmers 48 farmers have obtained insurance *Kharif* crop insurance claim. The claim percent is 31 and 37 per cent for Puducherry and Haryana respectively. It is less than 10 all the remaining selected States. There is no claim

status during post campaign period. as data collection was ended just after the launch of mega awareness campaign of *Rabi* 2022.

Table 3.26: PMFBY Awareness Levels versus PMFBY Enrolment among Sample Farmers of Selected States (%)

Sl. No.	State	PMFBY Aware	PMFBY Enrolment	
			No	Yes
1.	Assam	No	40	0
		Yes	44	16
2.	Manipur	No	49	0
		Yes	30	21
3.	Chhattisgarh	No	23	0
4.		Yes	27	50
5.	Goa	No	94	0
		Yes	5	1
6.	Haryana	No	15	1
		Yes	24	60
7.	Himachal Pradesh	-	-	-
8.	Jammu & Kashmir	No	85	0
		Yes	11	4
9.	Kerala	No	11	0
		Yes	49	40
10.	M.P	No	26	0
		Yes	58	16
11.	Maharashtra	No	24	0
		Yes	45	31
12.	Meghalaya	Yes		100
13.	Odisha	Yes	50	0
		No	2	48
14.	Puducherry	No	28	0
		Yes	13	59
15.	Rajasthan	No	5	2
		Yes	9	84
16.	Sikkim	No	1	0
		Yes	21	78
17.	Tripura	No	11	0
		Yes	25	63
18.	U.P.	No	37	0
		Yes	17	46
19.	Uttarakhand	No	78	0
		Yes	17	5

Fig 4: Status of awareness level and enrollment under PMFBY of Sample Farmers in Selected States in the pre campaign period



The results presented in the Table 3.26 depicts State wise cross tab between awareness levels with enrolment in detail[3]. Among the different States, in Assam 40 per cent of the farmers who are not aware of the scheme have not enrolled in the scheme on the contrary, 44 percent of the selected farmers who are aware of the scheme but not many are enrolled. It shows farmer without having awareness have not enrolled in the scheme in Assam. However, only 16 percent farmers enrolled having awareness about PMFBY in Assam. In the case of Manipur, 49 per cent of the selected farmers were not aware of the scheme and not enrolled. While, 21 per cent who have awareness are enrolled. Only in the case of Meghalaya all the 100 selected farmers enrolled with 100 percent of awareness. This trend is almost same for all the States as discussed in the previous sections on awareness levels and enrolment

[3] Since not much differences are observed between States, only State wise observations are provided here and the detailed district wise summarized data is provided in Annexure 5

status. To sum up this table, it is clear that in all the selected States, all the sample farmers who have enrolled in PMFBY are having awareness and not found any single case where without awareness the enrolment has happened. Hence, to increase the enrolment among the farmers who are not aware of the scheme, the first thing to do is creation of awareness among these farmers.

3.5 Problems in Insuring the Crops under PMFBY:

- Although crop insurance has been in the country since 1972, yet it has been beset with several problems such as lack of transparency, high premium, delay in conducting crop cutting experiments and non-payment/delayed payment of claims to farmers. Realizing the limitations of existing system of crop insurance, a new crop insurance scheme was launched on Baisakhi day, Pradhan Mantri Fasal Bima Yojana (PMFBY), from *Kharif* 2016.

Table 3.27: Distribution of Famers by Reason for Not Insuring Crops, for all 19 States (%)

Sl. No	Reason	%of Farmers
1.	Nearest Bank at a Long Distance	74
2.	Don't Know Procedure to Pay Premium	64
3.	Complex Procedures	61
4.	Not Aware	46
5.	Having Previous Bad Experience	28
6.	Heard bad experience from others)	23
7.	No Calamities Occur in the Village	17
8.	Not Interested	15
9.	Lack of Resources for Premium Payment	4
10.	Delay in Claim Payment	2

Source: Field Data

- Despite its several benefits restructuring of insurance products to accommodate loss to agricultural crops from both covariate and idiosyncratic risks and subsidised to a great extent, still there the scheme is suffering from some problems from the view point of farmers. Majority of the sample farmers when interviewed Stated important problems (Table 3.27) About 74 per cent of the sample farmers expressed that the reason behind the less enrolment is not having

a bank nearest to their village followed by cumbersome procedure of paying premium (46%) bad experience with the PMFBY (28%) and heard bad experience of other farmers in the village (23%). About 17 per cent of the farmers said absence of calamities is the reason for no calamities in the village and two per cent expressed problem of delay in claim payment under PMFBY.

Table 3.28: State-wise Distribution of Famers by Reason for Not Insuring Crops (%)

Sl. No.	States	Not Aware	Don't know procedure to pay premium	Percentage of don't know where to pay premium	No bank facility in village	Previous bad experience	heard bad experiences of fellow farmers	No calamities occurs in the village
1	Assam	36	58	65	74	15	8	19
2	Manipur	100	3	3	99	92	93	3
3	Meghalaya		50					
4	Sikkim	3	100	100	49	32	19	8
5	Tripura	3	20	11	1	20	24	4
6	Chhattisgarh	26	96	97	99	7	2	0
7	Haryana	32	70	65	92	17	30	17
8	Himachal Pradesh	60	70					
9	Madhya Pradesh	30	52	62	42	24	30	5
10	Uttar Pradesh	81	58	59	61	41	26	78
11	Uttarakhand	5	10	38	100	69	49	100
12	Maharashtra	31	78	80	97	4	5	4
13	Goa	82	97	97	100	4		
14	Rajasthan	83	90	99	47	84	53	1
15	Odisha	2	-	76	19	2	1	27
16	Kerala	96	9	44	86	3	2	2
17	Andaman & Niko bar	6	19	37	22	60	28	1
18	Jammu & Kashmir	51	-	50	-	-	50	-
19	Puducherry	39	88	88	96	5	5	3

Source: Field data

Problems identified during survey of sample farmers: (Field Observations by the Investigators)

- Reach of the PMFBY scheme is very poor: Especially the small and marginal farmers in the rural area and are not aware about the scheme / benefits of the scheme.

- Campaign / Extension work of the scheme is often restricted to block level or to the nearby the villages of the block. During the survey it was found that the campaign was done at the block level on a market day. So, only those farmers who attended market were exposed to the campaign.
- Agricultural extension officers in the agriculture and live departments are crucial for effective campaign. However, due to lack of manpower and hard pressed for extension related activities, scope for using their services is limited.
- Illiteracy; End users i.e. the farmers have very little understanding of the process. Small and marginal farmers are mostly illiterate and can't read / understand the technicalities of the scheme.
- In many cases, the purchase of crop insurance is compulsory in the case of crop loan / financial assistance from the societies. Insurance premium is deducted at source. Many a time's farmers even don't know about the rate / amount of premium deducted.
- Survey of the damaged crop / Claim settlement process is often biased. During survey we found that it is a common grievance of the farmers that survey of the damages crops are not done properly and if done it is biased to avoid the claim process.

3.6 Multivariate Analysis:

This section describes the construction of dependent and independent variables from the survey data. The dependent variable for our study is a dichotomous variable, containing value "1" when a farmer household reported being aware about crop insurance, and "0" when not aware. Farmers are grouped who responded with either code "01" (not aware) or "02" (not aware about availability of facility).

The independent variable for our analysis is the indicator for access to agricultural information. The survey captured data on whether a farm household received technical advice and if any member of the household attended agricultural

training. We considered a household as having received information if it obtained technical advice from at least one of these eight channels, and/or if any member of the household attended agricultural training. We included the following household-level characteristics as control variables. Access to formal loan was included, since crop credit in India is linked to crop insurance. A farm family's highest level of educational attainment was included as a categorical variable with four levels of educational achievement: illiterate, up to primary level of education, up to secondary level of education, and beyond secondary-level education.. Caste was included in following four categories: Scheduled Tribe (ST), Scheduled Caste (SC), Other Backward Classes (OBC), and Others, we also used proportion of cultivated area with irrigation, age of household head, and an indicator to identify principal source of income (whether agriculture or not) as additional household-level controls.

Model for Multivariate Analysis

To investigate the determinants of awareness about crop insurance, we employ a logistic regression model as shown in equation 1, where the outcome variable "Y" takes the value 1 when a farm household is "aware" and 0 otherwise, and "X" is a vector of household-level as well as other control variables.

$$Yi = a1 + a2\ adv + a3\ loan + a4\ edu + a5\ cast + a6\ landsize + a7\ age + a8\ income + ui$$

As discussed in the previous section, out of 1900 sample farmers, 1325 households were aware about crop insurance, while remaining 575 households were not aware of the scheme before launching *Rabi* mega awareness campaign. Approximately 51 per cent farmers received some kind of technical advice and/or attended agricultural training, and close to 69 per cent farmers reported taking institutional loans. A quarter of the farmer households in our sample belonged to either ST or SC category, while the majority (45 per cent) were OBC households. On average, educational attainment was found to be above the secondary level of

education. Almost 90 per cent of farmers in the sample reported agriculture as their primary source of income. While average landholding per household was 2 hectares.

Table 3.29 Results of the Model:

Sl. No.	Independent Variable	Value of the Coefficient	t ratio
1.	Constant	0.90	2.45
2.	Advise/training (media exposure)	1.24	4.50
3.	Loan	1.37	2.68
4.	Primary Education	1.19	2.65
5.	Secondary Education	1.37	3.72
6.	Higher Education	1.70	4.25
7.	SC	1.27	2.62
8.	OBC	1.66	2.68
9.	Others	1.89	3.22
10.	Land size		
11.	Marginal & Small	1.13	2.23
12.	Medium	1.18	2.89
13.	Large	2.56	3.15
14.	Age		
15.	Below 40 years	2.32	5.25
16.	40 to 60 years	1.67	3.45
17.	Above 60 years	0.99	1.50
18.	Income source		
19.	Farming	1.00	4.34
20.	others	0.75	1.51
	R2	**0.98**	

Results of the regressions analysis are presented in the Table 3.29. The results corroborate our findings from the field observations. All the variables considered for the study have significant t ratios which means all variables independently and also together are important in raising awareness levels of PMFBY. With regard to the advice or media exposure, bringing more farmers under the purview of these services will prove beneficial for improving awareness. The coefficient for training and technical advice revealed that variation in locational characteristics around the neighbourhood of a farmer plays an important role in improving awareness.

The coefficient for access to formal loan is 1.24 and thus revealed that a farm household's access to formal loans is an important determinant of awareness. Short-

term crop credit in India (and in many other developing countries) is linked with crop insurance. However, all the farmers availing a crop loan may not be insured, because the type of loan may be different and thus crop insurance may not be sold in some areas. Therefore, while not all farmers taking loans are insured, there is a high likelihood that they are aware about it when they take any type of institutional loan.

The effect of a higher level of education is positive on awareness about crop insurance. Educated farmers are likely to find it easier to understand the operational nature of an insurance scheme. In our study, we found that the estimates for educational attainment to be strongly positive and increasing with level of education. Our findings about the effect of social group are in line with the existing literature. Mobarak and Rosenzweig (2012, 2013), while studying agricultural insurance adoption, found that caste-based networks existed in Indian villages. Similarly, we found that the coefficients for social group are positively correlated with awareness. Further, the coefficient increases as we move from the most socially disadvantaged group (ST) to the least socially disadvantaged group (Others). In fact, the odds of a farmer from the most socially advantaged category being aware about crop insurance are almost twice that of a farmer from the most socially disadvantaged category. Households with larger area of land holdings are also more likely to be aware than those with less land.

Summary:

Our study shows that there is a lot of improvement in the level of awareness after conducting the post *Rabi* mega awareness campaign by the Government of India with the help of various stakeholders. Therefore, it is important to emphasize that, more awareness-building is necessary to create demand for crop insurance product. It is clear that there are two possible institutional channels through which farmers can gain knowledge about crop insurance. First one is agricultural extension services, and the second one is bank. Since, provision of crop insurance in India happens mainly through bank branches, this could be an effective channel to

disseminate information on crop insurance. In our empirical analysis, we found that while farmers who attended agricultural training and/or received technical advice on agriculture are more likely to be aware of insurance. Improving agricultural extension services is crucial for greater awareness about and thus take-up of crop insurance in India will increase. The infrastructure for providing agricultural extension services has to be enhanced.

Appendices

Annexure-I

Interview Schedule

National Institute of Agricultural Extension Management

(An Autonomous Organization of Ministry of Agriculture and Farmers' Welfare, Government of India)

Rajendranagar, Hyderabad-500 030, Telangana, India

Evaluation of Mega Awareness Campaign of PMFBY Post-Campaign Survey

Interview Schedule

Interviewer Details:

Sl. No.	Particulars	Details
1.	Name of the Investigator	
2.	Associated Institute	
3.	State of Investigation	
4.	District	
5.	Block	
6.	Village of Investigation	
7.	Phone number of Investigator:	

A. Personal Information

Sl. No.	Particulars	Details
8.		
9.	Name of the Farmer	
10.	Address	
11.	Age	
12.	Educational Qualification (Tick mark)	Illiterate/10th /Intermediate/ Graduation/ Post graduation/ Others
13.	Sex	Male/Female
14.	Social Category	SC/ST/OBC/OC
15.	Family Type	Small (<4 members) Medium (> 4 and < 8) Large (>8)
16.	Phone Number of Farmer	

B. Agricultural and Financial Information

17. Total Area of Land Holding

Type Land	Area under irrigation (Acres)	Area under irrigated (Acres)	Total Area (Acres)
Owned			
Land Taken on rent			
Land given on rent			

18. What are the crops cultivated in the last year

Sl. No	Kharif (mention the name of the crops)	Rabi (mention the name of the crops)
A		
B		
C		
D		
E		
F		
G		

19. Sources of Income and Total Income:

	Major Source of Income
Source of Income	☐Farming
	☐Cattle
	☐Farm Labour
	☐Business
	☐Govt. Jobs
	☐Any Other
	Total Income

20. Access to Bank credit : Yes/ No

21. Have you taken KCC loan for cultivating the crops from the bank : Yes / No

If Yes, please provide further details

Year of Loan	**Amount of Loan taken from bank (Rs)**	**Seasons (Kharif/Rabi)**	**Type of Bank – CB, RRB, etc**
2020			
2021			
2022			

C. Social Participation

22. Are you a member of any Group? : Yes / No

If Yes Please let us know the organization/s in which you are a member

Sl. No	**Sources**	**Tick mark**
A	Co-operatives	
B	SHGs/FIG/CIG/FPOs	
C	Gram Panchayats	
D	Any Unions	
E	NGOs	
F	Associations	
G	Any other Please Specify	

D. Mass Media Exposure

23. Mass media exposure

How often do you use the following mass media?

Sl. No	Mass media Sources	Programmes	Frequency of use		
			Regularly	Occasionally	Never
A	Farm magazines	Agricultural Programs			
B	Radio	Agril. Programmes			
C		News			
D		Entertainment			
E		Sports			
F	T V	Agril. Programmes			
A		News			
B		Entertainment			
C		Sports			
D	Social Media (Facebook, Tweeter, Instagram)	Agril. Programmes			
E		News			
A		Entertainment			
		Sports			
B	KYC	Crop Insurance			
C	Participation in Gram Sabha/Village meeting				
D	Any other				

24. Do you utilize any of these information sources? Yes / No

If Yes Please rank (1-5) the following information sources listed below based on the usefulness/importance that they have on disseminating the information on the government schemes in the last 12 months.

(1=Do not know 2=Not used, 3= Not A Good Source, 4=Good Source of Information)

Sl. No	Sources	Rank (1-4)
A.	Progressive Farmers/key Communicators	
B.	Friends and relatives	
C.	Agricultural Input Dealers	
D.	Extension officers	
E.	Agricultural web portals	
F.	Farmer Producer Organization (FPOs)	
G.	Cooperatives	
H.	Panchayat Raj	
I.	Public and private Banks	
J.	Information Education Vans sent by Govt. And by other implementing agencies	
K.	Non-governmental organization (NGOs)	

L.	SMS sent by the regulated markets	
M.	Banners and Wall Paintings across Villages/Blocks/Districts	
N.	Distribution of PMFBY print materials such as pamphlets, flyers across entire districts	
O.	Display of Hoardings/Posters	
P.	Nukkad Natak	
Q.	Special engagement workshop/seminars are organized by Women Farmers	
R.	Mass Media (Radio/TV/Bulk SMS sent By the Authorized Govt Departments and Implementing agencies)	
S.	Social Media Twitter/Facebook/Instagram *etc.*	

25. Are you aware of Crop Insurance Scheme or Pradhan Mantri Fasal Bima Yojana (PMFBY)

Yes / No

26. If yes, did you enroll for Crop Insurance under PMFBY?

27. If yes, have you received any claim amount in Crop Insurance in the last three years?

Yes / No

28. When did you enroll for Crop Insurance?

Year	Insured crops Crop	Season	Premium Amount paid (Rs)	Amount Claimed (Rs)
2020		Kharif		
		Rabi		
2021		Kharif		
		Rabi		
2022		Kharif		
		Rabi		

If yes, from where did you get information on Crop Insurance (choose multiple options)?

Sl. No	Sources	Tick mark
a)	Department of Agriculture	
b)	Banks	
c)	Common Service Center (CSCs)	
d)	Insurance Companies	
e)	ATMA	
f)	Gram Panchayat	
g)	Farmer Producer Organization (FPO)	
h)	Primary Cooperative Society	
i)	Progressive Farmers	
j)	Banners and Wall Paintings across Villages/Blocks/Districts	
k)	Distribution of PMFBY print collaterals such as pamphlets, flyers across entire districts	
l)	Display of Hoardings/Posters	
m)	Nukkad Natak	

n)	Special engagement workshop/seminars are organized with Women Farmers	
o)	Mass Media (Radio/TV/Bulk SMS sent By the Authorized Govt Departments and Implementing agencies)	
p)	Social Media Twitter/Facebook/Instagram/Facebook *etc.*	
q)	Kisan Call Canter	
r)	Information Education Vans	
s)	Any Other	

29. Among these information Sources who explained better the need and procedure of enrolment in PMFBY (Choose one)

Sl. No	Sources	Tick mark
1)	Department of Agriculture	
2)	Banks	
3)	Common Service Center (CSCs)	
4)	Insurance Companies	
5)	ATMA	
6)	Gram Panchayat	
7)	Farmer Producer Organization (FPO)	
8)	Primary Cooperative Society	
9)	Progressive Farmers	
10)	Banners and Wall Paintings across Villages/Blocks/Districts	
11)	Distribution of PMFBY print collaterals such as pamphlets, flyers across entire districts	
12)	Display of Hoardings/Posters	
13)	Nukkad Natak	
14)	Special engagement workshop/seminars are organized with Women Farmers	
15)	Mass Media (Radio/TV/Bulk SMS sent By the Authorized Govt Departments and Implementing agencies)	
16)	Social Media Twitter/Facebook/Instagram/Facebook *etc.*	
17)	Kisan Call Canter	
18)	Information Education Vans	
19)	Any other	

30. When did these information sources start disseminating information on Crop Insurance (Only Before kharif season =1, After Kharif season =2, Only Before Rabi season =3, After Rabi season=4, Before both seasons=5)

Sl. No	Sources	1	2	3	4	5
A.	Department of Agriculture					
B.	Banks					
C.	Common Service Center (CSCs)					
D.	Insurance Companies					
E.	ATMA					
F.	Gram Panchayat					
G.	Farmer Producer Organization (FPO)					
H.	Primary Cooperative Society					
I.	Progressive Farmers					
J.	Banners and Wall Paintings across Villages/Blocks/Districts					
K.	Distribution of PMFBY print collaterals such as pamphlets, flyers across entire districts					
L.	Display of Hoardings/Posters					
M.	Nukkad Natak					
N.	Special engagement workshop/seminars are organized with Women Farmers					
O.	Mass Media (Radio/TV/Bulk SMS sent By the Authorized Govt Departments and Implementing agencies)					
P.	Social Media Twitter/Facebook/Instagram/Facebook *etc.*					
Q.	Kissan Call Canter (KCC)					
R.	Information Education Vans					
S.	Any other					

31. Any Information Education Communication (IEC) Vans on PMFBY came to your village Yes / No

32. Whether any Women farmers attended workshops / seminars on PMFBY **Yes / No**

33. Any Nukkad Natak are organized in your villages/ blocks on PMFBY **Yes / No**

34. Have you seen any Banners / Posters in your village on Pradhan Mantri Fasal Bima Yojana **Yes / No**

If yes mention the places:

Sl. No	Places	Response
A.	Bus Station/Bus Panel	
B.	In front of Banks	
C.	In Common Service Centers s	
D.	Near Circle of the village	
E.	In front of Gram Panchayat	
F.	In front of FPOs	
G.	In front of Primary Cooperative Society	
H.	Information Education Vans came in village	
I.	Any other places	

35. **Did you receive any print collaterals such as pamphlets, flyers, booklets on Pradhan Mantri Fasal Bima Yojana Yes /No**

36. **If yes, then please select the sources**

Sl. No	Sources	Response
1	State Department of Agriculture	
2	Banks	
3	CSCs	
4	Insurance Companies	
5	ATMA	
6	Gram Panchayat	
7	FPO	
8	Primary Cooperative Society	
9	Information Education Vans came in village	
10	Any other	

E. Awareness About Crop Insurance & PMFBY

37. **Do you know how many crops are covered under PMFBY**
Yes / No

38. **Whether Crops cultivated by you are covered under PMFBY**
Yes / No

39. **Do you know the types of risks covered under PMFBY**
A. Basic Cover B. Add-On Coverage
C. Both A & B D. None of these

40. **Are you aware about how much premium is being paid by farmers for Kharif season?**
A. 2% (All Food grain and Oilseeds crops) B. 3%
C. 4% D. None of these

41. **What is the premium amount to be paid for Rabi Crop**
A. 1.5% (All Food grain and Oilseeds crops) B. 3%

C. 4% D. None of these

42. What is the premium amount to be paid for Perennial horticultural / commercial crops

A. 5% (Annual Commercial/ Annual Horticultural crops)
B. 3%
C. 4%
D. None of these

43. Where can farmers enroll their applications and pay the insured premium?

A. Bank
B. Panchayats
C. Hospitals
D. None of these

44. Are you aware of mobile Application on PMFBY crop insurance? Yes / No

45. Do you know online registration available for PMFBY? Yes / No

46. Are you aware of track your application in PMFBY website? Yes / No

47. Are you aware of how to track your application in PMFBY website? Yes / No

F. Problems Faced by the Farmers in filing Crop Insurance & PMFBY

48. Problems Faced by the Farmers in filing Crop Insurance & PMFBY

Sl. No	Problems	Tick mark
A.	Not aware of the PMFBY scheme	
B.	Don't know procedure to pay premium	
C.	Don't know where to pay premium	
D.	No bank facility in our village	
E.	Are CSC-VLE helping you in enrolment	
F.	Bad experience of crop damage in previous incident	
G.	Heard bad experiences of crop damage of fellow farmers	
H.	Generally village will not affect by any natural calamities therefore not interested in paying premium amount	
I.	No bank account on my name	
J.	If any other please mention	

49. Mention three suggestions for improving the crop insurance scheme:

a.
b.
c.

Annexure 2: Age Composition of Sample Farmers in Selected Districts of India

State	District	Age Category			Total
		40 & < 40	40 to 60	Above 60	
Assam	Dhubri	24	20	6	50
		48.0%	40.0%	12.0%	100.0%
	TINSUKIA	33	17	0	50
		66.0%	34.0%	0.0%	100.0%
	Total	57	37	6	100
		57.0%	37.0%	6.0%	100.0%
Chhattisgarh	Balrampur	16	26	8	50
		32.0%	52.0%	16.0%	100.0%
	Rajnandgaon	19	24	7	50
		38.0%	48.0%	14.0%	100.0%
	Total	35	50	15	100
		35.0%	50.0%	15.0%	100.0%
Goa	North Goa	16	32	2	50
		32.0%	64.0%	4.0%	100.0%
	South Goa	7	41	2	50
		14.0%	82.0%	4.0%	100.0%
	Total	23	73	4	100
		23.0%	73.0%	4.0%	100.0%
Haryana	Panipat	17	24	9	50
		34.0%	48.0%	18.0%	100.0%
	Sirsa	25	20	5	50
		50.0%	40.0%	10.0%	100.0%
	Total	42	44	14	100
		42.0%	44.0%	14.0%	100.0%
Kerala	Palakkad	2	29	19	50
		4.0%	58.0%	38.0%	100.0%
	Pathanamthitta	7	26	17	50
		14.0%	52.0%	34.0%	100.0%
	Total	9	55	36	100
		9.0%	55.0%	36.0%	100.0%
M.P	Niwari	23	19	8	50
		46.0%	38.0%	16.0%	100.0%
	Ujjain	17	25	8	50
		34.0%	50.0%	16.0%	100.0%
	Total	40	44	16	100
		40.0%	44.0%	16.0%	100.0%
Maharashtra	Kolhapur	5	37	8	50
		10.0%	74.0%	16.0%	100.0%
	Sindhudurg	16	27	7	50
		32.0%	54.0%	14.0%	100.0%
	Total	21	64	15	100

		21.0%	64.0%	15.0%	100.0%
Manipur	Bishnupur	21	25	4	50
		42.0%	50.0%	8.0%	100.0%
	Imphal West	9	29	12	50
		18.0%	58.0%	24.0%	100.0%
	Total	30	54	16	100
		30.0%	54.0%	16.0%	100.0%
Meghalaya	Ri Bhoi	22	24	3	49
		44.9%	49.0%	6.1%	100.0%
	West garo hills	33	14	3	50
		66.0%	28.0%	6.0%	100.0%
	Total	55	38	6	99
		55.6%	38.4%	6.1%	100.0%
Puducherry	Karaikal	4	28	18	50
		8.0%	56.0%	36.0%	100.0%
	Pondicherry	3	29	18	50
		6.0%	58.0%	36.0%	100.0%
	Total	7	57	36	100
		7.0%	57.0%	36.0%	100.0%
Rajasthan	Baran	21	21	8	50
		42.0%	42.0%	16.0%	100.0%
	Kota	16	26	8	50
		32.0%	52.0%	16.0%	100.0%
	Total	37	47	16	100
		37.0%	47.0%	16.0%	100.0%
SIKKIM	GANGTOK	15	21	14	50
		30.0%	42.0%	28.0%	100.0%
	NAMCHI	23	21	6	50
		46.0%	42.0%	12.0%	100.0%
	Total	38	42	20	100
		38.0%	42.0%	20.0%	100.0%
U.P.	Muzaffarnagar	14	23	13	50
		28.0%	46.0%	26.0%	100.0%
	Raebareli	11	27	12	50
		22.0%	54.0%	24.0%	100.0%
	Total	25	50	25	100
		25.0%	50.0%	25.0%	100.0%
Uttarakhand	Nainital	14	29	7	50
		28.0%	58.0%	14.0%	100.0%
	Udham Singh Nagar	16	27	7	50
		32.0%	54.0%	14.0%	100.0%
	Total	30	56	14	100
		30.0%	56.0%	14.0%	100.0%

Annexure 3: Gender Composition of the Sample Farmers

State		Sex		Total
		Male	Female	
Assam	Dhubri	46	4	50
		92.0%	8.0%	100.0%
	TINSUKIA	26	24	50
		52.0%	48.0%	100.0%
	Total	72	28	100
		72.0%	28.0%	100.0%
Chhattisgarh	Balrampur	49	1	50
		98.0%	2.0%	100.0%
	Rajnandgaon	48	2	50
		96.0%	4.0%	100.0%
	Total	97	3	100
		97.0%	3.0%	100.0%
Goa	North Goa	47	3	50
		94.0%	6.0%	100.0%
	South Goa	48	2	50
		96.0%	4.0%	100.0%
	Total	95	5	100
		95.0%	5.0%	100.0%
Haryana	Panipat	49	1	50
		98.0%	2.0%	100.0%
	Sirsa	50	0	50
		100.0%	0.0%	100.0%
	Total	99	1	100
		99.0%	1.0%	100.0%
Kerala	Palakkad	40	10	50
		80.0%	20.0%	100.0%
	Pathanamthitta	26	24	50
		52.0%	48.0%	100.0%
	Total	66	34	100
		66.0%	34.0%	100.0%
M.P	Niwari	50	0	50
		100.0%	0.0%	100.0%
	Ujjain	47	3	50
		94.0%	6.0%	100.0%
	Total	97	3	100
		97.0%	3.0%	100.0%
Maharashtra	Kolhapur	47	3	50
		94.0%	6.0%	100.0%
	Sindhudurg	47	3	50
		94.0%	6.0%	100.0%
	Total	94	6	100

		94.0%	6.0%	100.0%
Manipur	Bishnupur	21	29	50
		42.0%	58.0%	100.0%
	Imphal West	31	19	50
		62.0%	38.0%	100.0%
	Total	52	48	100
		52.0%	48.0%	100.0%
Meghalaya	Ri Bhoi	29	21	50
		58.0%	42.0%	100.0%
	West garo hills	36	14	50
		72.0%	28.0%	100.0%
	Total	65	35	100
		65.0%	35.0%	100.0%
Puducherry	Karaikal	47	3	50
		94.0%	6.0%	100.0%
	Pondicherry	42	8	50
		84.0%	16.0%	100.0%
	Total	89	11	100
		89.0%	11.0%	100.0%
Rajasthan	Baran	45	5	50
		90.0%	10.0%	100.0%
	Kota	48	2	50
		96.0%	4.0%	100.0%
	Total	93	7	100
		93.0%	7.0%	100.0%
SIKKIM	GANGTOK	32	18	50
		64.0%	36.0%	100.0%
	NAMCHI	34	16	50
		68.0%	32.0%	100.0%
	Total	66	34	100
		66.0%	34.0%	100.0%
U.P.	Muzaffarnagar	46	4	50
		92.0%	8.0%	100.0%
	Raebareli	44	6	50
		88.0%	12.0%	100.0%
	Total	90	10	100
		90.0%	10.0%	100.0%
Uttarakhand	Nainital	49	1	50
		98.0%	2.0%	100.0%
	Udham Singh Nagar	46	4	50
		92.0%	8.0%	100.0%
	Total	95	5	100
		95.0%	5.0%	100.0%

Annexure 4: Land holding of the Sample Farmers

State	District	Marginal	Small	Medium	Large	Total
Assam	Dhubri	18	19	11	2	50
	TINSUKIA	47	3	0	0	50
	Total	65	22	11	2	100
Chhattisgarh	Balrampur	14	20	13	3	50
	Rajnandgaon	19	22	8	1	50
	Total	33	42	21	4	100
Goa	North Goa	39	5	4	2	50
	South Goa	49	1	0	0	50
	Total	88	6	4	2	100
Haryana	Panipat	8	14	22	6	50
	Sirsa	6	9	21	14	50
	Total	14	23	43	20	100
J&K	Samba	50				50
	Jammu	50				50
	Total	100				100
Kerala	Palakkad	24	10	10	6	50
	Pathanamthitta	49	0	1	0	50
	Total	73	10	11	6	100
M.P	Niwari	14	18	10	8	50
	Ujjain	29	14	6	1	50
	Total	43	32	16	9	100
Maharashtra	Kolhapur	30	16	4	0	50
	Sindhudurg	24	16	6	4	50
	Total	54	32	10	4	100
Manipur	Bishnupur	39	11	0	0	50
	Imphal West	20	20	7	3	50
	Total	59	31	7	3	100
Meghalaya	Ri Bhoi	32	13	5		50
	West garo hills	33	13	4		50
	Total	65	26	9		100
Odisha	Bargarh	50				50
	Malkangiri	50				50
	Total	100				100
Puducherry	Karaikal	9	20	14	7	50
	Pondicherry	24	14	12	0	50
	Total	33	34	26	7	100
Rajasthan	Baran	2	10	19	19	50

	Kota	3	18	14	15	50
	Total	5	28	33	34	100
Sikkim	GANGTOK	46	3	1	0	50
	NAMCHI	33	12	3	2	50
	Total	79	15	4	2	100
Tripura	Khowai	8				8
	Total	8				8
U.P.	Muzaffarnagar	23	14	11	2	50
	Raebareli	28	20	1	1	50
	Total	51	34	12	3	100
Uttarakhand	Nainital	41	8	1	0	50
	Udham Singh Nagar	13	13	19	5	50
	Total	54	21	20	5	100
Overall		**924**	**356**	**227**	**101**	**1608**

Annexure 5: Education level of the Sample Farmers (%)

State	District	Illiterate	10th class	Intermediate	Graduation	Post-graduation	Others	Total
Assam	Dhubri	25	6	5	4	4	6	50
		50.0	12.0	10.0	8.0	8.0	12.0	100.0
	TINSUKIA	6	30	12	1	0	1	50
		12.0	60.0	24.0	2.0	0.0	2.0	100.0
	Total	31	36	17	5	4	7	100
		31.0	36.0	17.0	5.0	4.0	7.0	100.0
Chhattisgarh	Balrampur	15	19	10	3	3		50
		30.0	38.0	20.0	6.0	6.0		100.0
	Rajnandgaon	5	39	5	0	1		50
		10.0	78.0	10.0	0.0	2.0		100.0
	Total	20	58	15	3	4		100
		20.0	58.0	15.0	3.0	4.0		100.0
Goa	North Goa	13	15	12	9	1		50
		26.0	30.0	24.0	18.0	2.0		100.0
	South Goa	5	24	20	1	0		50
		10.0	48.0	40.0	2.0	0.0		100.0
	Total	18	39	32	10	1		100
		18.0	39.0	32.0	10.0	1.0		100.0
Haryana	Panipat	5	19	14	9	3		50
		10.0	38.0	28.0	18.0	6.0		100.0
	Sirsa	10	26	5	9	0		50
		20.0	52.0	10.0	18.0	0.0		100.0

	Total	15	45	19	18	3		100
		15.0	45.0	19.0	18.0	3.0		100.0
Kerala	Palakkad	8	32	5	4	1	0	50
		16.0	64.0	10.0	8.0	2.0	0.0	100.0
	Pathanamthitta	9	27	6	5	1	2	50
		18.0	54.0	12.0	10.0	2.0	4.0	100.0
	Total	17	59	11	9	2	2	100
		17.0	59.0	11.0	9.0	2.0	2.0	100.0
M.P	Niwari	30	10	8	2	0		50
		60.0	20.0	16.0	4.0	0.0		100.0
	Ujjain	20	18	3	4	5		50
		40.0	36.0	6.0	8.0	10.0		100.0
	Total	50	28	11	6	5		100
		50.0	28.0	11.0	6.0	5.0		100.0
Maharashtra	Kolhapur	4	21	10	13	3		50
		8.0	42.0	20.0	26.0	6.0		100.0
	Sindhudurg	2	25	15	6	2		50
		4.1	51.0	30.6	12.2	4.0		100.0
	Total	6	46	25	19	4		100
		6.0	46.0	25.0	19.0	4.0		100.0
Manipur	Bishnupur	18	19	5	6		2	50
		36.0	38.0	10.0	12.0		4.0	100.0
	Imphal West	10	21	13	6		0	50
		20.0	42.0	26.0	12.0		0.0	100.0
	Total	28	40	18	12		2	100
		28.0	40.0	18.0	12.0		2.0	100.0
Meghalaya	Ri Bhoi	14	21	6	9			50
		28.0	42.0	12.0	18.0			100.0
	West garo hills	0	50	0	0			50
		0.0	100.0	0.0	0.0			100.0
	Total	14	71	6	9			100
		14.0	71.0	6.0	9.0			100.0
Puducherry	Karaikal	0	29	14	5	2	0	50
		0.0	58.0	28.0	10.0	4.0	0.0	100.0
	Pondicherry	7	15	8	9	2	9	50
		14.0	30.0	16.0	18.0	4.0	18.0	100.0
	Total	7	44	22	14	4	9	100
		7.0	44.0	22.0	14.0	4.0	9.0	100.0
Rajasthan	Baran	13	15	9	11	2		50
		26.0	30.0	18.0	22.0	4.0		100.0
	Kota	21	17	5	7	0		50
		42.0	34.0	10.0	14.0	0.0		100.0
	Total	34	32	14	18	2		100
		34.0	32.0	14.0	18.0	2.0		100.0

SIKKIM	GANGTOK	9	37	2	1	1	0	50
		18.0	74.0	4.0	2.0	2.0	0.0	100.0
	NAMCHI	5	10	5	4	0	26	50
		10.0	20.0	10.0	8.0	0.0	52.0	100.0
	Total	14	47	7	5	1	26	100
		14.0	47.0	7.0	5.	1.0	26.0	100.0
U.P.	Muzaffarnagar	16	14	14	5	1		50
		32.0	28.0	28.0	10.0	2.0		100.0
	Raebareli	8	26	10	4	2		50
		16.0	52.0	20.0	8.0	4.0		100.0
	Total	24	40	24	9	3		100
		24.0	40.0	24.0	9.0	3.0		100.0
Uttarakhand	Nainital	6	24	11	6	2	1	50
		12.0	48.0	22.0	12.0	4.0	2.0	100.0
	Udham Singh Nagar	3	24	15	8	0	0	50
		6.0	48.0	30.0	16.0	0.0%	0.0	100.0
	Total	9	48	26	14	2	1	100
		9.0	48.0	26.0	14.0	2.0%	1.0	100.0
Overall		**284**	**633**	**247**	**151**	**35**	**47**	**1400**
		20.3	**45.2**	**17.7**	**10.8**	**2.5**	**3.4**	**100.**

Annexure 6 : District Wise Awareness of PMFBY – Pre Campaign

State			PMFBY aware		Total
			No	Yes	
Andaman	district	North and Middle		1	1
		South Andaman		20	20
	Total			21	21
Assam	district	Dhubri	27	21	48
		TINSUKIA	10	39	49
	Total		37	60	97
Chhattisgarh	district	Balrampur	17	32	49
		Rajnandgaon	6	44	50
	Total		23	76	99
Goa	district	North Goa	44	6	50
		South Goa	50	0	50
	Total		94	6	100
Haryana	district	Panipat	4	46	50
		Sirsa	13	37	50
	Total		17	83	100
Himachal Prad	district	Hamirpur		50	50
		Kullu		50	50
	Total			100	100
J&K	district	Jammu	8	42	50
		Samba	0	50	50
	Total		8	92	100
Kerala	district	Palakkad	1	49	50

		Pathanamthitta	10	40	50
	Total		11	89	100
M.P	district	Niwari	2	48	50
		Ujjain	24	26	50
	Total		26	74	100
Maharashtra	district	Kolhapur	11	39	50
		Sindhudurg	13	37	50
	Total		24	76	100
Manipur	district	Bishnupur	0	50	50
		Imphal West	49	1	50
	Total		49	51	100
Meghalaya	district	Ri Bhoi		47	47
		West garo hills		50	50
	Total			97	97
Odisha	district	Bargarh		19	19
	Total			19	19
Puducherry	district	Karaikal	1	49	50
		Pondicherry	27	23	50
	Total		28	72	100
Rajasthan	district	Baran	0	50	50
		Kota	7	43	50
	Total		7	93	100
SIKKIM	district	GANGTOK	1	49	50
		NAMCHI	0	50	50
	Total		1	99	100
Tripura	district	Khowai	0	40	40
		West Tripura	4	43	47
	Total		4	83	87
U.P.	district	Muzaffarnagar	36	14	50
		Raebareli	1	47	48
	Total		37	61	98
Uttarakhand	district	Nainital	39	10	49
		Udham Singh Nagar	41	8	49
	Total		80	18	98

Annexure 7: Enrolment in PMFBY – Pre Mega Awareness Campaign

State			PMFBY enrolled		Total
			No	Yes	
Andaman	district	North and Middle		1	1
		South Andaman		20	20
	Total			21	21
Assam	district	Dhubri	47	1	48
		TINSUKIA	34	15	49
	Total		81	16	97
Chhattisgarh	district	Balrampur	30	20	50
		Rajnandgaon	20	30	50
	Total		50	50	100
Goa	district	North Goa	49	1	50
		South Goa	50	0	50

	Total		99	1	100
Haryana	district	Panipat	26	23	49
		Sirsa	12	38	50
	Total		38	61	99
Himachal Pradesh	district	Hamirpur		50	50
		Kullu		50	50
	Total			100	100
J&K	district	Jammu	8	42	50
		Samba	0	50	50
	Total		8	92	100
Kerala	district	Palakkad	19	31	50
		Pathanamthitta	41	9	50
	Total		60	40	100
M.P	district	Niwari	48	2	50
		Ujjain	36	14	50
	Total		84	16	100
Maharashtra	district	Kolhapur	22	28	50
		Sindhudurg	47	3	50
	Total		69	31	100
Manipur	district	Bishnupur	29	21	50
		Imphal West	50	0	50
	Total		79	21	100
Meghalaya	district	Ri Bhoi		47	47
		West garo hills		50	50
	Total			97	97
Odisha	district	Bargarh		19	19
	Total			19	19
Puducherry	district	Karaikal	1	49	50
		Pondicherry	40	10	50
	Total		41	59	100
Rajasthan	district	Baran	1	49	50
		Kota	13	37	50
	Total		14	86	100
SIKKIM	district	GANGTOK	22	28	50
		NAMCHI	0	50	50
	Total		22	78	100
Tripura	district	Khowai		40	40
		West Tripura		35	35
	Total			75	75
U.P.	district	Muzaffarnagar	50	0	50
		Raebareli	2	46	48
	Total		52	46	98
Uttarakhand	district	Nainital	49	1	50
		Udham Singh Nagar	48	0	48
	Total		97	1	98

Annexure 8: Awareness Levels of PMFBY- District Wise – Post Campaign

State			PMFBY aware		Total
			0	1	
A&N Islands	district	North Andaman	13	37	50
	Total		13	37	50
Chhattisgarh	district	Balrampur	10	40	50
		Rajnandgaon	6	44	50
	Total		16	84	100
Goa	district	North Goa	20	30	50
		South Goa	32	18	50
	Total		52	48	100
Haryana	district	panipat		1	1
	Total			1	1
Haryana	district	Panipat	4	45	49
		Sirsa	10	39	49
	Total		14	84	98
J&k	district	Jammu		50	50
	Total			50	50
M.P.	district	Niwari	3	47	50
		Ujjain	23	27	50
	Total		26	74	100
Maharashtra	district	Kolhapur	1	49	50
		Sindhudurg	13	37	50
	Total		14	86	100
manipur	district	Imphal West	1		1
	Total		1		1
Manipur	district	Bishnupur	24	26	50
		Imphal West	49	0	49
	Total		73	26	99
Puducherry	district	Karaikal		50	50
	Total			50	50
Rajasthan	district	Baran		50	50
		Kota		50	50
	Total			100	100
SIKKIM	district	GANGTOK		50	50
	Total			50	50
U.P.	district	Muzaffarnagar	16	34	50
	Total		16	34	50
UP	district	Raebareli	1	47	48
	Total		1	47	48
Uttarakhand	district	Nainital	35	14	49
		Udham Singh Nagar	40	9	49
	Total		75	23	98

Annexure 9 : Enrolment in PMFBY – District Wise : Post Mega Awareness campaign

State			PMFBY enrolled		Total
			0	1	
A&N Islands	district	North Andaman	44	4	48
		South Andaman	11	39	50
	Total		55	43	98
Chhattisgarh	district	Balrampur	30	20	50
		Rajnandgaon	19	31	50
	Total		49	51	100
Goa	district	North Goa	50		50
		South Goa	50		50
	Total		100		100
Haryana	district	Panipat	25	23	48
		Sirsa	11	38	49
	Total		36	61	97
J&k	district	Jammu		50	50
	Total			50	50
M.P.	district	Niwari	45	5	50
		Ujjain	33	17	50
	Total		78	22	100
Maharashtra	district	Kolhapur	19	31	50
		Sindhudurg	45	5	50
	Total		64	36	100
manipur	district	Imphal West	1		1
	Total		1		1
Manipur	district	Bishnupur	50		50
		Imphal West	49		49
	Total		99		99
Puducherry	district	Karaikal		50	50
	Total			50	50
Rajasthan	district	Baran	0	50	50
		Kota	6	44	50
	Total		6	94	100
SIKKIM	district	GANGTOK	10	40	50
	Total		10	40	50
U.P.	district	Muzaffarnagar	50		50
	Total		50		50
	district	Raebareli	6	42	48
	Total		6	42	48
Uttarakhand	district	Nainital	49	1	50
		Udham Singh Nagar	49	0	49
	Total		98	1	99

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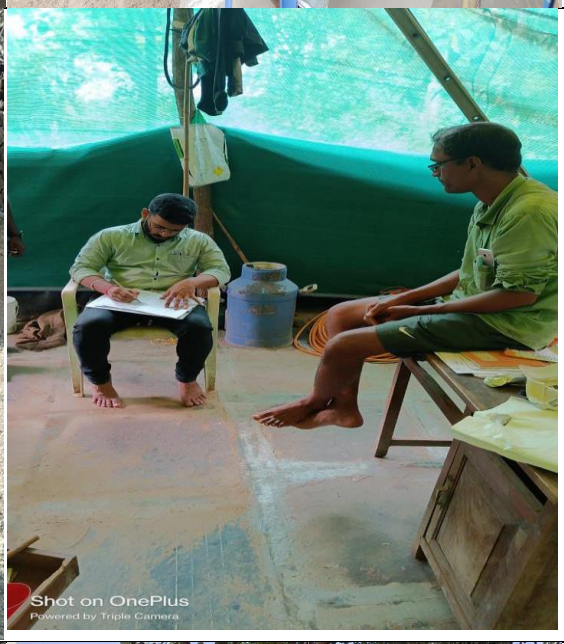
Glimpses of PMFBY




Yumnam Bijoykumar Singh
On 21st November, 2019
27/11/2022 14:03


Latitude: 25.284798
Longitude: 78.960884
Elevation: 265.08±16 m
Accuracy: 8.6 m
Time: 29-01-2023 10:09
Note: PMFBY Pre Campaign survey Bilock Newari me
Powered by NoteCam


Latitude: 25.305594
Longitude: 78.893201
Elevation: 264.97±8 m
Accuracy: 5.7 m
Time: 29-01-2023 11:54
Note: PMFBY Campaign survey Namapura 3
Powered by NoteCam


अक्षांश: 25.316142
देशान्तर: 78.909024
उन्नयन: 228.59±64 m
सटीकता: 39.6 m
समय: 01-26-2023 13:30
नोट: pmfby kalothra ravindra
Powered by NoteCam

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