

A Study of Pradhan Mantri Fasal Bima Yojana on Agricultural Risk Mitigation and Enhancing Farmer's Livelihood in Karanja Taluka

Vaibhav Devanand Pawar, P.R. Pote Patil College of Engineering and Management, Amravati

E-mail: vaibhavpawar6115@gmail.com

F. K. Thomas, P.R. Pote Patil College of Engineering and Management, Amravati, E-mail: florence.thomas09@gmail.com

Abstract

The present study analyzed the experiences of 100 farmers in Karanja Taluka, Maharashtra, focusing on their struggles with crop failures, insurance schemes, and the impact of the Pradhan Mantri Fasal Bima Yojana (PMFBY) on their lives. Agriculture is the backbone of India's economy, but farmers face significant challenges such as unpredictable weather, droughts, and financial difficulties. Launched in 2016, PMFBY was designed to provide crop insurance, offer financial stability, and promote modern farming practices. In Karanja Taluka, crop failures primarily occur due to floods, irregular rainfall, droughts, and pests. These issues create considerable financial stress, which makes insurance coverage essential. PMFBY aims to protect farmers against these risks. This study assesses farmers' understanding of the scheme, satisfaction, and impact on their income. Most farmers learn about PMFBY through insurance agents, while government efforts to disseminate information, have been less effective. Many farmers appreciate the financial support but encounter challenges such as delayed claim settlements and complex procedures. Some farmers benefit from PMFBY, while others feel that it has not improved their financial security. To enhance the effectiveness of PMFBY, several improvements are necessary, including faster claim settlements, more effective awareness campaigns, and simplified processes. By implementing these changes, the scheme can provide better financial security for farmers and support sustainable agriculture in the long run.

Keywords- PMFBY, Farmers, Claim Settlement, Insurance, Agriculture, Financial, Risk, Crop Failure

Introduction

The agriculture sector is the foundation and pillar of India's economy, contributing approximately 18.2% to the country's GDP. About 42.3% of the population relies on agriculture for their livelihoods. Karanja (Lad) Taluka, located in the Washim district of Maharashtra, primarily depends on agriculture as the most reliable source of income for its farmers. However, farming in this region faces significant challenges, including unpredictable weather patterns, frequent droughts, excessive rainfall, and pest attacks. These risks often lead to crop failures, causing severe financial distress for farmers. Between 2012 and January 2021, a tragic 1,695 farmers lost their lives due to crop failures and a lack of financial support.

Indian farmers encounter various types of risks and uncertainties, such as weather-related issues, yield losses, natural calamities, and floods. To address these challenges, the Government of India launched the Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme on February 18, 2016. This program provides financial support and insurance coverage to help farmers recover from losses caused by unforeseen events.

Pradhan Mantri Fasal Bima Yojana Overview

The Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme was launched in February 2016 to provide insurance coverage to farmers against losses caused by natural calamities. This initiative aims to enhance farmers' income and improve their livelihoods. Initially, in the financial year 2016-17, the central government allocated INR 5,500 crores for the scheme. However, in the Union Budget for 2024-25, this allocation was increased to INR 13,625 crores. This increase demonstrates the government's commitment to providing financial support to all farmers and ensuring access to credit in the event of crop yield losses.

Objectives of the PMFBY Scheme

The PMFBY aims to support sustainable agricultural production through the following

objectives:

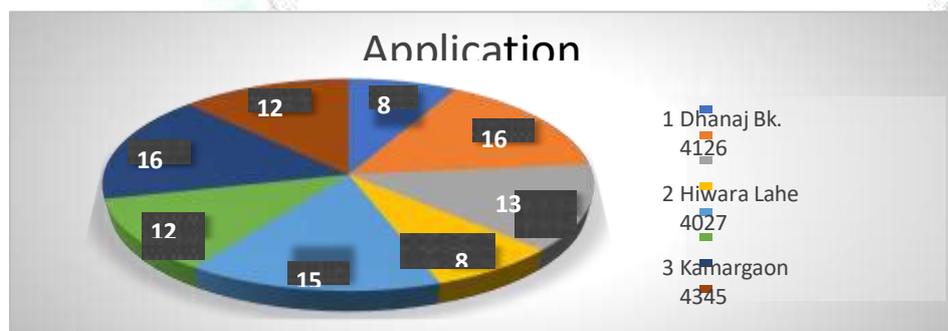
- To provide financial assistance to farmers who experience crop loss or damage due to unforeseen events.
- To stabilize farmers' income, ensuring their continued engagement in farming.
- To encourage farmers to adopt innovative and modern agricultural practices.
- To ensure a steady flow of credit to the agriculture sector, which will contribute to food security, crop diversification, and the overall growth and competitiveness of the agriculture sector, while protecting farmers from production risks

Coverage of Crops, Risks, and Exclusions under PMFBY

The Pradhan Mantri Fasal Bima Yojana (PMFBY) provides insurance for various crops, including cereals, millets, pulses, oilseeds, and horticultural crops, ensuring financial security for farmers. It covers risks such as prevented sowing due to insufficient rainfall, as well as comprehensive protection for standing crops against threats like drought, floods, pest infestations, and natural disasters. Post-harvest losses are insured for up to two weeks after harvesting, particularly for crops left to dry in the field. Localized calamities affecting specific farms, such as hailstorms and landslides, are also covered. However, losses resulting from war, nuclear events, and malicious damage are excluded. PMFBY aims to safeguard farmers from unpredictable agricultural losses and enhance financial stability.

PMFBY Dashboard of Karanja Taluka

Application & Area		Application			Hectare	
Sr. No	Circle Name	Farmers	Loanee	Non-Loanee	Area Insured	Sum Insured
1	Dhanaj Bk.	4126	120	8617	7536.46	38,71,00,624.84
2	Hiwara Lahe	4027	237	7786	7124.14	36,93,57,660.03
3	Kamargaon	4345	203	9099	7733.14	39,67,24,837.82
4	Karanja	3479	118	6193	6656.15	34,89,03,919.94
5	Kherda Bk.	4184	235	7728	7521.23	39,25,91,337.78
6	Poha	4825	175	9284	8128.38	42,30,34,932.97
7	Umbarda Bajar	4718	249	9496	8358.75	43,49,99,886.86
8	Yewata	4295	188	8367	7476.38	38,84,16,930.76



(Sources: <http://pmfby.gov.in>)

Review of Literature

Dr. Pradeepika (2017) conducted a study on the implementation of the Pradhan Mantri Fasal Bima Yojana (PMFBY) in Haryana. She surveyed 100 individuals from financial institutions, the implementing agency, and the agricultural department, all of whom had familiarity with the scheme. The survey focused on whether these individuals displayed PMFBY posters in their offices, discussed the scheme with visiting farmers, distributed brochures or pamphlets, and

included PMFBY discussions in meetings with farmers. The study identified major challenges in implementing the scheme, including negative publicity, inadequate promotion, and the agriculture department staff's disengagement due to difficulties in collecting crop-cutting data.

Chandra Bhushan and Vineet Kumar (2017) examined the implementation of PMFBY in Haryana, Tamil Nadu, and Uttar Pradesh, alongside a nationwide engagement involving farmers, farmer organizations, insurance companies, and government departments. Their report concluded that while PMFBY represents a significant improvement over previous crop insurance schemes, its practical effectiveness is compromised. A key finding was that PMFBY is not beneficial for farmers in vulnerable regions, such as Bundelkhand and Marathwada. Shortcomings in the scheme, including low indemnity levels, low threshold yields, inadequate sums insured, and loan defaults, hinder its ability to protect farmers against extreme weather events. In these areas, farmers may receive no compensation even if more than half of their crops are damaged, underscoring the scheme's limitations in meeting the needs of farmers in high-risk regions.

Mahul & Clarke et al. (2012, March) studied the evolution of the National Agricultural Insurance Scheme (NAIS) to the Modified NAIS (MNAIS). This transition marked a shift from a government-funded crop insurance program to a market-based model, enabling more accurate premium rates and better-designed insurance products. This shift encouraged private sector involvement and improved the MNAIS. While the study noted significant progress, it also highlighted remaining challenges. For the future, it recommends exploring policy options that address these issues, aimed at creating a more effective and sustainable crop insurance program for Indian farmers.

D. Suresh Kumar et al. (2011) highlighted that while many farmers are aware of government initiatives to mitigate agricultural risks, fewer understand the specific crop insurance options available to them. Based on a survey of 600 farmers in Tamil Nadu, the researchers found that factors such as farm size, income from non-farming sources, perceived risks, and premium affordability significantly influenced the adoption of crop insurance among farmers. The Study emphasizes the need for better communication to inform farmers about these insurance options. Additionally, the researchers suggest creating simpler and more innovative insurance products requiring less human intervention and recommend forming partnerships and providing training to enhance farmers' adoption of crop insurance.

Research Problem Definition

In Karanja Taluka, farmers often lack sufficient awareness about the schemes provided, including eligibility criteria, enrollment procedures, and claim processes. Furthermore, delays in claim settlements, inadequate communication, and complex administrative procedures have discouraged farmers from fully benefiting from these schemes. Small and marginal farmers, who are the most vulnerable, often encounter institutional and logistical barriers that make it difficult for them to access the schemes. Given these challenges, there is a pressing need to critically evaluate the performance of the Pradhan Mantri Fasal Bima Yojana (PMFBY) in Karanja Taluka. This research aims to identify the levels of awareness and participation among farmers, examine the challenges they face, and assess the actual impact of the scheme on their financial stability and agricultural resilience. It also seeks to explore whether PMFBY has effectively fulfilled its objective of mitigating risks associated with crop losses. This study addresses the gap in understanding the localized implementation of PMFBY in Karanja Taluka and aims to provide actionable insights for improving the scheme's efficiency. By focusing on the specific challenges and experiences of farmers in the region, the research will contribute to the development of targeted strategies to enhance the scheme's effectiveness and ensure its long-term sustainability.

Research Objectives

1. To assess the level of awareness about the Pradhan Mantri Fasal Bima Yojana (PMFBY)

- among farmers in Karanja Taluka.
2. To evaluate the implementation process of PMFBY, including enrolment, premium payment, and claim settlement in Karanja Taluka.
 3. To study the impact of PMFBY on mitigating crop loss risks and improving the financial stability of farmers in the region.
 4. To identify challenges faced by farmers in accessing the benefits of the scheme, such as delays in claim settlements and administrative hurdles

Research Methodology Research Design

The study adopted a descriptive research design to examine the awareness, participation, and impact of the Pradhan Mantri Fasal Bima Yojana (PMFBY) among farmers in Karanja Taluka. This approach facilitated an in-depth understanding of the scheme's implementation and its effects on farmers.

Sampling Design

Sample Universe: The study focused on all farmers in Karanja Taluka engaged in agricultural activities, including both beneficiaries and potential beneficiaries of PMFBY.

Sample Population: The target population consisted of farmers aware of agricultural insurance schemes

particularly PMFBY, and actively involved in farming.

Sample Unit: Individual farmers in Karanja Taluka, either enrolled in PMFBY or familiar with its implementation, formed the sample unit.

Sample Size: A total of 100 respondents were selected to represent the larger farming population of Karanja Taluka.

Sampling Technique

A simple random sampling technique was used to ensure that each farmer in the target population had an equal chance of selection. This approach minimized selection bias and improved the reliability of the data.

Sources of Data Collection

Primary Data: Data were collected through a structured questionnaire, covering: Awareness and knowledge of PMFBY.

Farmers' experiences with the scheme, including enrolment, claims, and benefits. Perceived impact of PMFBY on reducing agricultural risks and improving livelihoods. Suggestions for improvement.

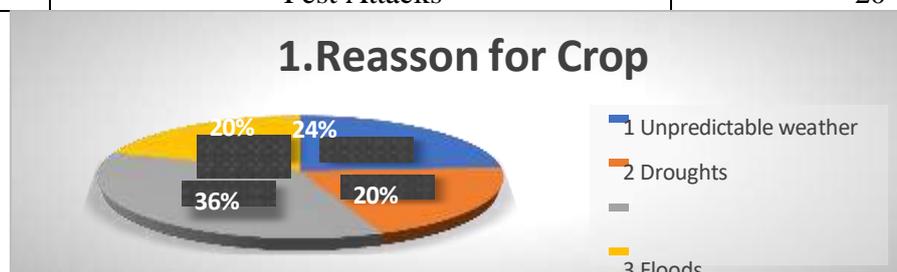
Secondary Data: Relevant information was obtained from:

Government reports and official statistics on PMFBY implementation in Karanja Taluka. Scholarly articles and research papers on crop insurance schemes.

Data Analysis and Interpretation

Table No. 1

1. Reason for Crop Failure		
1	Unpredictable weather	24
2	Droughts	20
3	Floods	36
4	Pest Attacks	20



Graph no 1

Reasons for Crop Failure

The primary reasons for crop failure in Karanja Taluka are floods (36%), followed by unpredictable weather (24%), and droughts and pest attacks (20% each). This indicates that climatic and environmental factors significantly impact agricultural productivity. Since these factors are beyond farmers' control, crop insurance is crucial in providing financial relief and ensuring stability. The high percentage of failures due to floods suggests a need for better water management infrastructure and disaster preparedness programs alongside insurance coverage.

Table No: 2

2. Awareness Level of PMFBY		
1	Insurance Agents	52
2	Government Sites	8
3	Media (TV, Newspaper)	12
4	CSC Centre	28



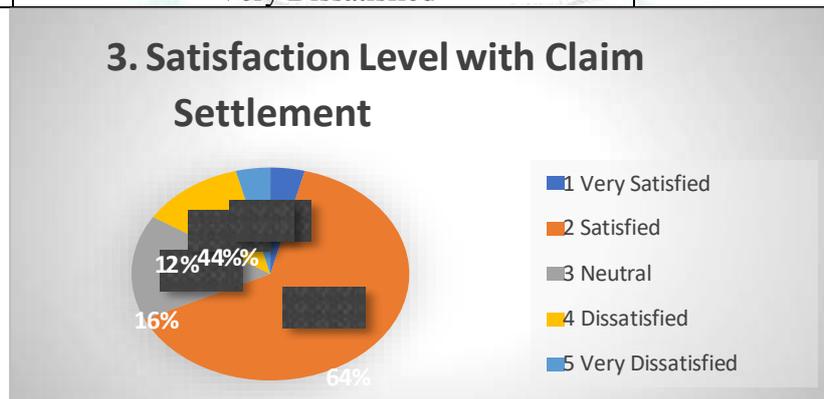
Graph No: 2

Awareness of PMFBY

The study reveals that insurance agents (52%) are the primary source of awareness about PMFBY, followed by CSC centers (28%), media (12%), and government websites (8%). This suggests that while many farmers are aware of the scheme, government digital platforms have not been as effective in disseminating information. Increasing awareness through media campaigns, local community engagement, and government outreach programs could help more farmers understand and access the scheme.

Table No. 3

3. Satisfaction Level with Claim Settlement		
1	Very Satisfied	4
2	Satisfied	64
3	Neutral	16
4	Dissatisfied	12
5	Very Dissatisfied	4



Graph no: 3

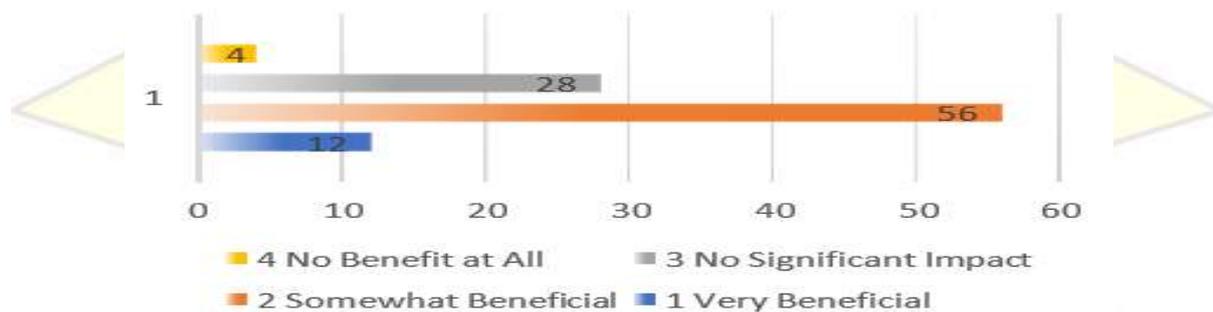
Satisfaction with Claim Settlement

Farmers' satisfaction levels regarding claim settlements show that while 64% are satisfied, only 4% are very satisfied, indicating that most farmers receive their claims but may face delays or complications. 16% remain neutral, while 12% are dissatisfied, and 4% are very dissatisfied. This suggests that although the scheme is functional, improvements in the claim processing system, faster settlements, and better communication about claim status could enhance farmer satisfaction.

Table No: 4

4. Financial Impact of PMFBY		
1	Very Beneficial	12
2	Somewhat Beneficial	56
3	No Significant Impact	28
4	No Benefit at All	4

4. FINANCIAL IMPACT OF PMFBY



Graph No: 4

Financial Impact of PMFBY

The financial impact assessment indicates that 56% of farmers find the scheme somewhat beneficial, while 12% consider it very beneficial. However, 28% report no significant impact, and 4% believe it provides no benefit at all. While the scheme does provide financial relief to many, the fact that nearly a third of farmers see no major impact suggests that the compensation amounts, coverage, or claim processing system may require adjustments to better serve their needs.

Table No. 5

5. Satisfaction Level with PMFBY		
1	Very satisfied	16
2	Satisfied	64
3	Neutral	8
4	Dissatisfied	12
5	Very Dissatisfied	0

Graph No: 5

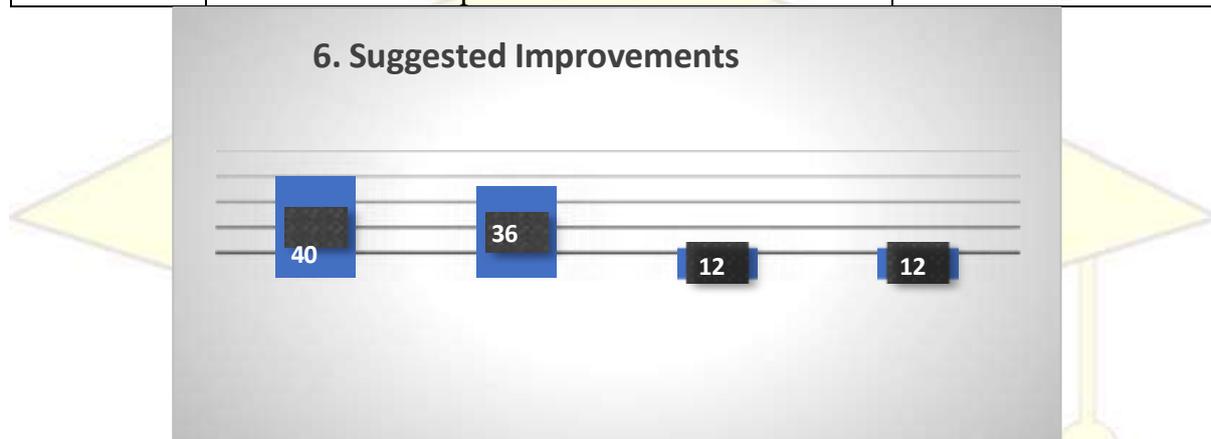


Overall Satisfaction with PMFBY

When evaluating the overall satisfaction with PMFBY, 64% of farmers reported being satisfied, while 16% were very satisfied. However, 12% were dissatisfied, showing that while the scheme benefits a majority, there are still concerns that need to be addressed. Ensuring a smoother claim process, improving transparency, and increasing accessibility can help boost overall satisfaction.

Table No: 6

6. Suggested Improvements for PMFBY		
1	Faster Claim Settlement	40
2	Better Awareness Programs	36
3	Reduced Premium	12
4	Simplified Documents	12

**Graph No: 6****Suggested Improvements**

Farmers have highlighted key areas for improvement in the scheme. The most common suggestion is faster claim settlement (40%), followed by the need for better awareness programs (36%).

Additionally, 12% of farmers recommend reducing premium costs, and another 12% suggest simplifying documentation requirements. These findings indicate that administrative inefficiencies and procedural complexities are major concerns for farmers, which could be addressed through policy refinements and improved service delivery.

Conclusion

The PMFBY scheme has been beneficial for many farmers in Karanja Taluka, but several areas need improvement. The main challenges include delayed claim settlements, a lack of awareness, and complicated procedures. To enhance the scheme's effectiveness and provide greater financial security for farmers facing climate-related risks, it is essential to address these issues through policy reforms, digital solutions, and improved outreach programs for farmers. Strengthening the program will not only increase participation but also support long-term agricultural sustainability in the region.

References

D. Suresh Kumar, B.C. Barah, C.R. Ranganathan, R. Venkatram, S. Gurunathan and S.Thirumorthy (2011, January-June), "An Analysis of Farmers' Perception and Awareness towards Crop Insurance as a Tool for Risk Management in Tamil Nadu" an article published in Agricultural Economics Research Review, Vol. 24, pp. 37-46.

Dr. Pradeepika (2017), "Insights into the New Crop Insurance Scheme in Haryana State", International Journal of Advanced Research, ISSN: 2320-5407, Int. J. Adv. Res. 5(7), pp.1797-1802.

Mahul, O., Verma, N., & Clarke, D. J. (2012, March). Improving Farmers' Access to

Agricultural

Insurance in India [Scholarly project], in the World Bank Financial and Private Sector Development Vice Presidency Non-Banking Financial Institutions Unit & South Asia Region Finance and Private Sector Development Unit. Retrieved November 20, 2017, from <https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-5987>.

Chandra Bhushan and Vineet Kumar (2017), A Report of the “Pradhan Mantri Fasal Bima Yojana: An Assessment”, Published by Centre for Science and Environment, New Delhi.

Webliography

<https://pib.gov.in/PressReleasePage.aspx?PRID=2034943#:~:text=Economic%20Survey%20says%20that%20the,country's%20GDP%20at%20current%20prices>

<https://pmfby.gov.in/compendium/Performance%20Evaluation/2018%20%20Performance%20Evaluation%20of%20pradhan%20mantri%20fasal%20bima%20>

[yojana%20himachal%20pradesh.pdf](https://pmfby.gov.in/yojana%20himachal%20pradesh.pdf) <https://pmfby.gov.in/>

<https://shodhgangotri.inflibnet.ac.in/simple>

search?query=Pradhanmantri+fasal+bima+yojana&go= <https://www.aicofindia.com/pradhan-mantri-fasal-bima-yojana>

