

# Pradhan Mantri Fasal Bima Yojana in Jharkhand: A Comprehensive Evaluation

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## Abstract

*The Pradhan Mantri Fasal Bima Yojana (PMFBY), launched in 2016, aims to provide comprehensive insurance coverage to Indian farmers against crop loss due to natural calamities. In a state like Jharkhand, where agriculture remains the primary source of livelihood, the relevance of this scheme is profound. This study investigates the implementation and effectiveness of PMFBY in Jharkhand, analyzing both primary and secondary data. While the scheme has improved risk mitigation for farmers, various challenges such as awareness deficits, delayed compensation, and low enrollment hinder its impact. The study employs a mixed-methods approach to identify issues and propose practical recommendations for improved execution. The findings suggest the necessity for enhanced transparency, technological interventions, and robust institutional mechanisms for PMFBY to be truly beneficial in the context of Jharkhand.*

**Keywords** *Pradhan Mantri Fasal Bima Yojana, Crop Insurance, Jharkhand, Agriculture Risk, Farmer Welfare, Agricultural Policy, Climate Risk, Rural Development*

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## Introduction

India's agrarian economy is deeply intertwined with the livelihoods of millions of rural households, and agriculture continues to be a principal source of income for nearly 60% of the country's population. However, the sector remains highly vulnerable to a multitude of risks, including erratic weather patterns, pest infestations, floods, droughts, and market volatility. These risks are particularly pronounced in states like Jharkhand, where the majority of the population is engaged in subsistence farming on marginal landholdings, heavily reliant on monsoon rainfall. The lack of adequate irrigation infrastructure and modern agricultural practices compounds the vulnerability of farmers, making them susceptible to income shocks due to crop failure.

In response to the recurrent agrarian distress, the Government of India introduced the Pradhan Mantri Fasal Bima Yojana (PMFBY) in February 2016. The scheme aims to provide comprehensive crop insurance coverage to farmers against yield losses arising from natural calamities, pests, and diseases. Designed to replace earlier schemes like the National Agricultural Insurance Scheme (NAIS) and the Modified NAIS (MNAIS), PMFBY promised lower premium rates for farmers, faster claim settlements, and greater transparency through technological integration.

Jharkhand presents a unique context for the implementation of PMFBY. The state is characterized by a diverse agro-climatic landscape, a high proportion of tribal population, and a predominantly rain-fed agricultural system. Despite being rich in natural resources, the state faces persistent developmental challenges in rural areas. Agriculture, which employs over 70% of the state's workforce, is still largely dependent on traditional methods, with limited access to credit, market linkages, and risk mitigation tools. In such an environment, a well-functioning crop insurance scheme like PMFBY could serve as a vital safety net for farmers.

However, the implementation of PMFBY in Jharkhand has encountered several challenges. These include low levels of awareness among farmers, inadequate information dissemination, delays in claim settlement, and lack of coordination among stakeholders such as banks, insurance companies, and local administrative bodies. Moreover, the automatic enrollment of farmers through Kisan Credit Cards without proper consent or communication has raised concerns about transparency and accountability.

This study seeks to critically examine the performance and impact of PMFBY in the state of Jharkhand. It explores the extent to which the scheme has been successful in mitigating agricultural risk, improving the financial resilience of farmers, and promoting sustainable farming practices. Using both primary data from field surveys and secondary data from official sources, the study offers an in-depth analysis of the scheme's operational dynamics. By identifying the key bottlenecks and proposing actionable policy recommendations, this research aims to contribute to the broader discourse on agricultural insurance and rural development in India.

## Review of Literature

Several studies have evaluated PMFBY at the national and state levels:

1. Rao (2017) noted that while PMFBY is a landmark policy reform, its success depends on accurate crop-cutting experiments and timely compensation.
2. Deshpande & Venkatesh (2018) found that though farmers were initially enthusiastic, issues like lack of awareness and non-transparent premium deductions limited its appeal.
3. Chand et al. (2019) highlighted that PMFBY had higher adoption in states with better institutional mechanisms and lower adoption in tribal areas.
4. Mitra & Bhattacharya (2020) studied PMFBY in eastern India and pointed out delayed payouts and weak farmer-insurer interactions as key limitations.
5. Jharkhand State Agriculture Report (2023) emphasizes the need for district-level customization of PMFBY due to the state's ecological and socio-economic diversity.

The literature reveals that while the scheme has merit, its implementation is fraught with bottlenecks, especially in tribal and underdeveloped regions like Jharkhand.

## Research Questions

1. What has been the coverage and performance of PMFBY in Jharkhand since its inception?
2. What are the key issues and challenges in the implementation of PMFBY in the state?
3. How can the scheme be improved to better serve small and marginal farmers in Jharkhand?

## Research Objectives

1. To analyze the trends in farmer enrollment, premium collection, and claim disbursement under PMFBY in Jharkhand.
2. To identify the operational challenges faced by stakeholders involved in scheme implementation.
3. To recommend policy-level improvements for more efficient and transparent execution.

## Methodology

This research is based on both qualitative and quantitative analysis.

- **Secondary Data Sources:** Government reports, PMFBY dashboard, Ministry of Agriculture, and NITI Aayog publications.
- **Analytical Tools:** Comparative trend analysis, claim ratio computation, and coverage-efficiency metrics.
- **Scope:** The study covers the period from 2016 to 2023.

## Situational Analysis: PMFBY in Jharkhand

### Socio-Agricultural Profile

Jharkhand is predominantly a rural and agrarian state, with nearly 76% of its population residing in rural areas and over 60% dependent on agriculture for livelihood. The state has a total geographical area of approximately 7.97 million hectares, out of which about 38% is cultivable. Agriculture in Jharkhand is characterized by small and marginal holdings—over 83% of farmers fall into these categories—with fragmented land parcels averaging less than 1 hectare. The state's cropping pattern is dominated by rice, which occupies more than 50% of the total sown area, followed by pulses, maize, and oilseeds. Rain-fed farming is prevalent, as only about 20% of the cultivable land is irrigated. This heavy dependence on monsoons makes agriculture highly vulnerable to climatic fluctuations such as droughts and irregular rainfall. Moreover, tribal communities—constituting around 26% of the state's population—rely heavily on subsistence agriculture and forest-based resources. Low mechanization, limited access to formal credit, and poor market connectivity further constrain productivity. Given this socio-agricultural context, risk mitigation mechanisms like the Pradhan Mantri Fasal Bima Yojana (PMFBY) are critical in ensuring income stability and long-term sustainability for Jharkhand's farming communities.

**Table 1: PMFBY Performance in Jharkhand (2016-2023)**

Year	Enrolled Farmers (Lakh)	Area Insured (Lakh Ha)	Premium Collected (INR Cr)	Claims Paid (INR Cr)
2016	2.3	1.2	48	31
2018	3.1	1.8	52	45
2020	2.8	1.6	46	37
2023	2.5	1.4	42	29

### Data Interpretation

- Enrollment peaked in 2018 and has gradually declined.
- Claim payout was highest in 2018, indicating better scheme performance during that year.
- The claim ratio shows inconsistency, highlighting procedural delays and inefficiencies.

### Issues and Challenges

#### 1. Low Awareness and Misinformation

A significant proportion of farmers were unaware of the scheme or misinformed about its benefits and procedures. The tribal population, in particular, had limited access to information.

#### 2. Delay in Claim Settlement

Despite digitization efforts, farmers reported a delay of 6–12 months in receiving compensation, undermining the scheme's objective.

#### 3. Involuntary Enrollment and Lack of Consent

Automatic premium deduction from KCC accounts without prior knowledge led to distrust among farmers.

#### 4. Inadequate Ground-Level Infrastructure

Limited availability of trained personnel for crop-cutting experiments and field surveys affected the accuracy and timeliness of assessments.

### 5. Poor Grievance Mechanism

There was no effective mechanism for farmers to lodge complaints or track claim status.

### 6. Technological Barriers

Mobile apps and portals were underutilized due to low digital literacy and poor network connectivity in rural areas.

## Suggestions

1. Intensive Awareness Campaigns: Conduct gram sabha-level awareness drives in local languages, using NGOs and self-help groups for outreach.
2. Consent-based Enrollment: Ensure informed and voluntary participation through written consent and detailed guidelines.
3. Capacity Building: Train panchayat-level workers and Krishi Mitras in claim filing, field assessments, and digital tools.
4. Strengthen Digital Infrastructure: Improve internet connectivity and provide mobile-based claim tracking in tribal areas.
5. Timely Settlement of Claims: Fix a maximum claim settlement period (e.g., 60 days), monitored by independent third-party audits.
6. District-specific Customization: Premium rates and coverage should reflect region-specific risks, especially in drought-prone areas.
7. Public-Private Partnerships: Encourage insurance companies to collaborate with local farmer producer organizations for easier access and monitoring.

## Conclusion

The Pradhan Mantri Fasal Bima Yojana has the potential to revolutionize agricultural risk management in India. In Jharkhand, while the scheme has made some inroads, its overall impact is limited due to administrative bottlenecks, technological gaps, and poor awareness. The decline in enrollment and inconsistent claim disbursement are clear indicators of the need for systemic reform. With targeted interventions, better technology integration, and participatory governance, PMFBY can become a more farmer-friendly and efficient tool for agricultural sustainability.

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