International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Social Protection for Farmers: The Role of MSP and Crop Insurance in Jharkhand

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Abstract
Agriculture in Jharkhand is largely characterized by small and marginal farmers who face persistent risks arising from price fluctuations, climatic uncertainty, and weak market infrastructure. In the post–New Economic Policy (NEP) era, mechanisms such as the Minimum Support Price (MSP) and crop insurance, particularly the Pradhan Mantri Fasal Bima Yojana (PMFBY), have emerged as key instruments of social protection for the farming community. This study examines the effectiveness of MSP and crop insurance in providing income stability and risk protection to farmers in Jharkhand, with a specific focus on paddy cultivation. Using secondary data from government sources and policy reports, the study analyses trends in procurement, insurance coverage, and farmer outcomes at the state and district levels. The findings indicate that while MSP and PMFBY have helped reduce extreme distress in certain contexts, their impact remains uneven due to infrastructural gaps, administrative delays, and limited integration. The study highlights the need for a more coordinated, transparent, and farmer-centric social protection framework to enhance agricultural resilience in Jharkhand.

Keywords: Agriculture, Jharkhand, Minimum Support Price (MSP), PMFBY, New Economic Policy (NEP), Social Protection.

Introduction

Jharkhand, one of India's mineral-rich yet agrarian state, continues to rely heavily on farming for livelihoods. Nearly 70 percent of its population is engaged in agriculture and related activities, despite the sector contributing a relatively small share to the state economy (Government of Jharkhand, 2023[1]). The majority of cultivators are small and marginal farmers who primarily grow rice, maize, and pulses under predominantly rainfed conditions. The sector faces persistent vulnerability to monsoon fluctuations, poor irrigation (less than 20% coverage), small landholdings, and limited access to credit and market infrastructure. Although agriculture provides employment to over 60 percent of Jharkhand's population, its contribution to the Gross State Value Added (GSVA) remains below 15 percent, highlighting persistent structural imbalances between labour dependence and productivity (Department of Economics and Statistics [DES], 2023[2]).

The idea of social protection grew from the "social safety net" policies promoted during the 1980s and 1990s, which were initially designed to assist households facing sudden shocks. Over time, the concept broadened to include long-term and structural forms of poverty as well (World Bank, 2014[3]).

Although scholars and institutions describe social protection in different ways, one widely accepted definition comes from Devereux and Sabates-Wheeler (2004) [4], who explained it as the collection of public and private measures aimed at providing income or consumption support to poor households, shielding vulnerable people from livelihood risks, and strengthening the rights and social position of marginalized groups. The overarching goal is to reduce the economic and social vulnerabilities experienced by these populations. In general, the literature agrees that social protection consists of three main pillars: **social assistance**, **social insurance**, and **labour-market interventions** (Barrientos, as cited in World Bank, 2014[5]).

The economic reforms introduced through the New Economic Policy (NEP) of 1991 brought significant liberalisation, privatisation, and globalisation, fundamentally transforming India's agricultural policy environment. While these reforms opened new market opportunities, they also heightened the vulnerability of small and marginal farmers to fluctuating prices and production uncertainties. In Jharkhand, where agriculture is already constrained by erratic rainfall, fragmented landholdings, and inadequate irrigation facilities, such exposure to market risks has made social protection mechanisms, such as the Minimum Support Price (MSP) and crop insurance essential for sustaining rural livelihoods. The post-1991 liberalisation phase therefore underscored the need for stronger safety nets and institutional support to safeguard smallholders from the unintended consequences of market-led reforms (Singh & Gupta, 2021[6]). To mitigate such risks, India's policy framework retained and expanded two major protective tools: the Minimum Support Price (MSP) and crop insurance. MSP serves as a guaranteed price floor, while schemes such as the Pradhan Mantri Fasal Bima Yojana (PMFBY) provide compensation against crop loss.

New Economic Policy

The **New Economic Policy (NEP) of 1991** fundamentally altered India's economic landscape, moving away from a tightly controlled, state-led economy toward a more market-oriented model. Triggered by a severe balance-of-payments crisis, the reforms introduced liberalisation, privatisation, and globalization, collectively known as the **LPG** framework. It was introduced to encourage investment, improve efficiency, and integrate India with the global economy (Panagariya, 2008[7]). Key measures included deregulating industries, reducing import tariffs, allowing greater foreign participation, and restructuring public sector enterprises (Ahluwalia, 2002[8]). While these reforms accelerated growth and improved market efficiency, they also increased farmers' exposure to price volatility, global competition, and climatic uncertainties, particularly in regions with weak infrastructure such as Jharkhand (Reddy & Mishra, 2010[9]).

Jharkhand's Agricultural Profile

According to the Jharkhand Economic Survey (2023) [10], agriculture contributes about 13 percent to the state's Gross State Value Added (GSVA). Nearly 92 percent of holdings are marginal or small, and only about 20 percent of gross cropped area is irrigated (DES, 2023[11]). The state's principal crops include paddy, maize, pulses, oilseeds, and minor millets. The dominance of rainfed cultivation and monsoon dependency makes the state particularly vulnerable to drought and rainfall variability. Hence, social protection mechanisms such as MSP and crop insurance are vital not only for income stability but also for encouraging productive investment and risk-taking in agriculture.

Research Objectives

1. To assess how effectively the Minimum Support Price (MSP) and crop insurance schemes functions as a social protection tool for farmers in Jharkhand.
2. To evaluate the performance and impact of crop insurance scheme (PMFBY) in reducing agricultural risks for small and marginal farmers.
3. To identify practical, actionable measures that can strengthen MSP and crop insurance so they better support vulnerable farmers in the state.

Research Hypothesis

H_1: "MSP has a significant positive effect on income stability among small and marginal farmers in Jharkhand."

H_2: "Crop insurance (PMFBY) significantly reduces financial risk for farmers in Jharkhand."

Research Methodology

This study adopts a **mixed-method, descriptive–analytical research design** to evaluate the effectiveness of the Minimum Support Price (MSP) and crop insurance (particularly PMFBY) as social protection mechanisms for small and marginal farmers in Jharkhand. The methodology combines **secondary data analysis**, **policy review**, and **conceptual assessment**, allowing for a comprehensive understanding of how these instruments function within Jharkhand's agricultural context.

The study relies primarily on **authentic secondary data** obtained from reputable government and institutional sources:

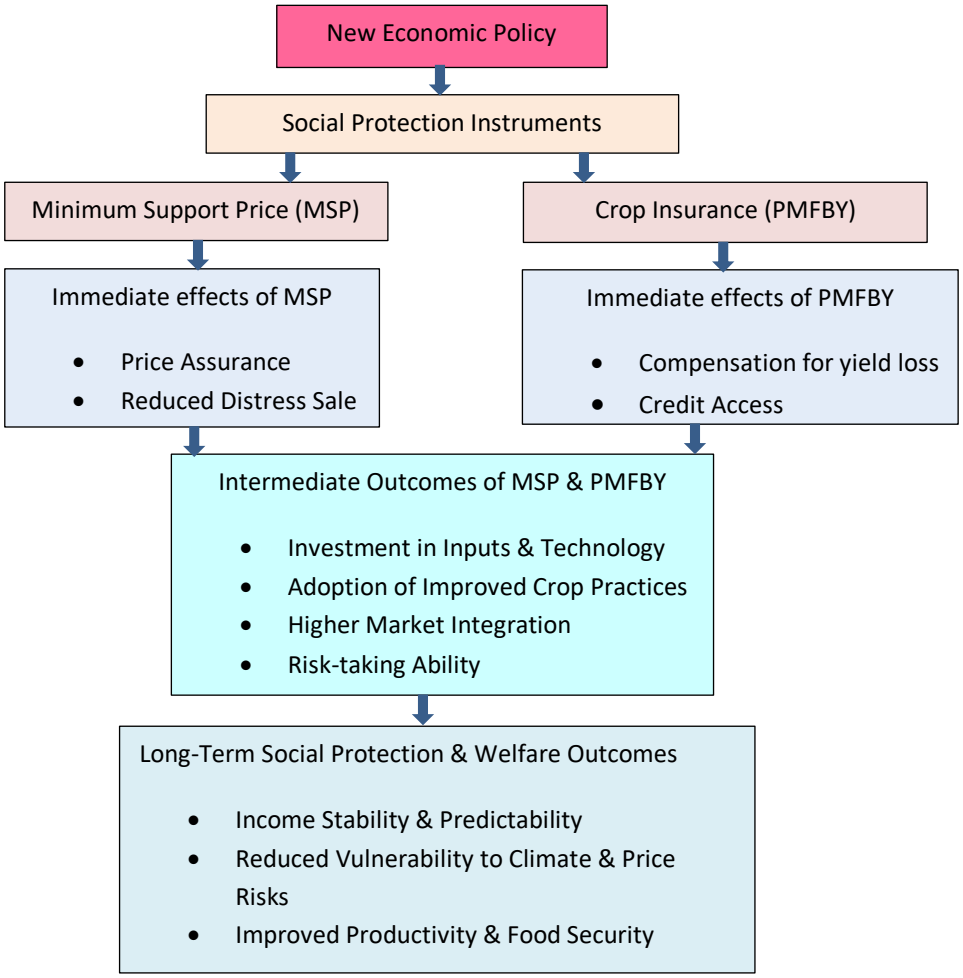
1. Directorate of Economics & Statistics (DES), Government of Jharkhand:
2. Ministry of Agriculture & Farmers Welfare (MoA&FW), Government of India:
3. PMFBY Dashboard (Government of India):
4. Food Corporation of India (FCI) and Jharkhand State Food and Civil Supplies Corporation:
5. Agricultural Statistics at a Glance (GoI, 2022)
6. PMFBY Progress Reports (2016–2023)
7. Literature from NITI Aayog, NABARD, and academic journals
8. Published research articles, evaluation reports (NABARD, FAO, CGIAR), and policy documents.

Review of Literature

Studies on social protection in agriculture consistently highlight the importance of combining price support, risk-management tools, and institutional reforms to safeguard vulnerable farming communities. **Devereux and Sabates-Wheeler (2004)** [12] noted that social protection in agriculture extends beyond safety-nets, functioning as a system that stabilizes incomes, reduces livelihood risks, and empowers marginalized farmers. In the Indian context, this has shaped policies such as the Minimum Support Price (MSP) and crop-insurance schemes, which are particularly relevant in states like Jharkhand where small and marginal farmers dominate the agrarian landscape. **World Bank (2014)** [13] emphasized that such mechanisms become critical in liberalized economies, as market volatility and climatic stress disproportionately affect regions with weaker infrastructure conditions that closely describe Jharkhand. Recent studies reveal mixed results regarding MSP's effectiveness. **Srinivasa et al. (2023)** [14] found that farmers' awareness of MSP does not necessarily translate into better farmgate prices when procurement systems are weak, suggesting limitations in MSP's reach among smallholders. This aligns

with **Basantaray (2023)** [15], who reported that MSP procurement remains uneven across eastern India, with states like Jharkhand benefiting less due to infrastructural gaps and limited procurement centres. These findings reflect the situation on the ground in Jharkhand, where a significant proportion of paddy growers continue selling to intermediaries at prices below MSP. As noted by **Singh and Gupta (2021)** [16], MSP's protective function is often undermined by inadequate market integration, forcing small farmers into distress sales despite government price guarantees. Similarly, research on crop insurance shows both its potential and its limitations. **Nirmal (2021)** [17] highlighted that while schemes such as the Pradhan Mantri Fasal Bima Yojana (PMFBY) have expanded coverage, delays in claim settlements and low farmer awareness continue to weaken the scheme's credibility. **Hans (2024)** [18] **and Chen (2025)** [19] further observed that although crop insurance can stabilize farm incomes during adverse seasons, administrative inefficiencies and challenges in damage assessment hinder its full effectiveness. These observations are directly relevant to Jharkhand, where field reports frequently document farmer dissatisfaction due to claim delays and low transparency in the PMFBY process. Nonetheless, **Swain (2023)** [20] emphasized that crop insurance remains a key strategy for climate-risk management and must evolve toward incentivizing preventive practices and climate-smart agriculture. Integrated discussions on social protection and agriculture argue for a more holistic approach. **Dorward et al. (2008)** [21] observed that linking social protection with agricultural development, such as combining MSP, insurance, credit, and market access can stimulate farm investment and improve livelihoods. This framework aligns with Jharkhand's needs, where rainfed farming, small landholdings, and weak infrastructure constrain farmers' resilience. The Food and Agriculture Organization (FAO) similarly stresses that market-based measures alone are insufficient; risk-management tools must complement price support to enhance income stability and productivity **(FAO, 2015)** [22]. Beyond price and insurance mechanisms, market access and institutional support also shape farmers' welfare. **Singh and Raj (2023)** [23] described the introduction of e-NAM in Jharkhand as a step toward improving marketing efficiency by linking local mandis with national buyers, potentially enabling farmers to secure fairer prices. Complementary studies by **Singh et al. (2023)** [24] showed that digital tools and information platforms help bridge information gaps, offering farmers guidance on practices, markets, and risk-management options. Although not directly tied to MSP or insurance, such interventions strengthen the enabling environment within which these social-protection tools operate. Overall, the literature suggests that MSP and crop insurance are essential yet insufficient instruments for safeguarding farmers in vulnerable states like Jharkhand. Their impact depends on institutional capacity, awareness, and integration with broader agricultural development strategies.

Conceptual Framework



Research Gaps

Although a growing body of literature recognises the importance of integrating price support and crop insurance as instruments of social protection, existing evidence remains uneven and highly context-specific. Most empirical studies examine MSP and crop insurance at the national level or across a limited set of states, with **very little focused analysis on Jharkhand**, despite its distinct agro-ecological conditions, high share of small and marginal farmers, and relatively weak market infrastructure. Moreover, prior research rarely disaggregates outcomes by landholding size or farmer category, overlooking the **heterogeneity among smallholders** and the varied ways in which MSP and insurance affect marginal, small, and medium farmers.

Further, while short-term income stabilization and risk reduction have been widely discussed, there is limited evidence on whether these social protection mechanisms encourage **long-term investment behaviour**, such as adoption of improved technologies, irrigation, or crop diversification. In addition, the **institutional and implementation dimensions**, including procurement capacity, claim settlement processes, transparency, and farmer awareness, remain underexplored, particularly in studies that examine MSP and crop insurance together. These gaps highlight the need for a state-specific analysis that examines how MSP and crop insurance operate in Jharkhand's agricultural context and identifies practical pathways to strengthen their role as effective social protection mechanisms.

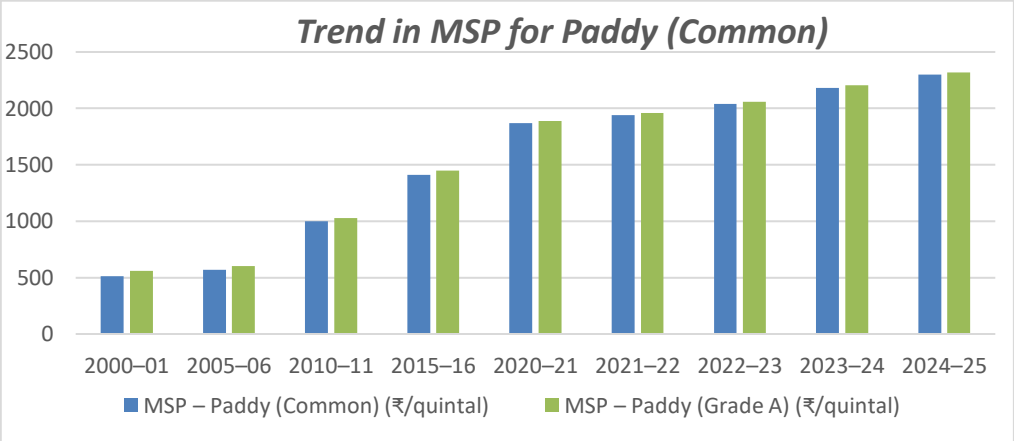
Minimum Support Price (MSP)

MSP was introduced in the 1960s to ensure remunerative prices for farmers and encourage food grain production (Government of India, 2024[25]). It is declared annually for 22 major crops and functions as a price guarantee mechanism. The Commission for Agricultural Costs and Prices (CACP) recommends MSPs based on input costs, demand-supply dynamics, and inter-crop price parity. In Jharkhand, MSP's implementation has been uneven. While paddy procurement under MSP is significant in some districts such as **Palamu, Hazaribagh, and Dhanbad**, small farmers elsewhere often sell below MSP due to lack of procurement centres or poor market access (Directorate of Economics & Statistics [DES], 2023[26]).

Table 1. Minimum Support Price for Paddy (Common and Grade A), Selected Years (2000–01 to 2024–25)

Year / Kharif Marketing Season (KMS)	MSP – Paddy (Common) (₹/quintal)	MSP – Paddy (Grade A) (₹/quintal)
2000–01	510	560
2005–06	570	600
2010–11	1000	1030
2015–16	1410	1450
2020–21	1,868	1,888
2021–22	1,940	1,960
2022–23	2,040	2,060
2023–24	2,183	2,203
2024–25	**2,300**	**2,320**

Figure 1. Trend in MSP for Paddy (Common), 2000–01 to 2024–25 (₹/quintal)



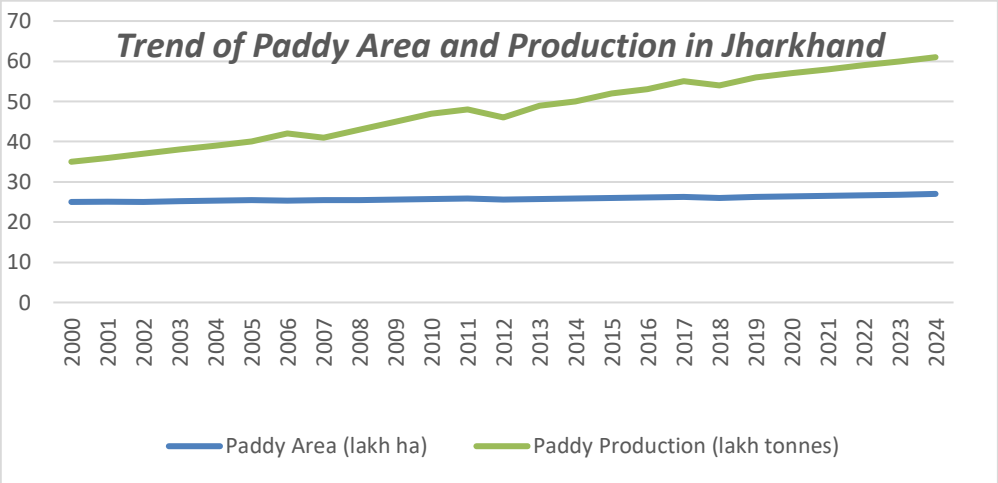
Source: *Government of India, Ministry of Agriculture & Farmers' Welfare. (2000–2024). Minimum support price notifications and press releases for Kharif marketing seasons. Press Information Bureau; Department of Agriculture & Farmers Welfare (eands.da.gov.in). Indian Council of Agricultural Research – Indian Institute of Oilseeds Research. (n.d.). Minimum support price: A background (MSP consolidated table, 2010–11 to 2021–22).*

The graph shows a steady upward movement in the MSP for paddy (common) from **₹510 in 2000–01** to **₹2,300 in 2024–25**, indicating more than a four-fold increase over the post-NEP period. This persistent rise reflects the role of MSP as a **national floor price mechanism** aimed at stabilizing farm incomes and providing a key component of **social protection for agricultural households**.

Table 2. Trend of Paddy Area and Production in Jharkhand (2000–2024) ***(in lakh hectares and lakh tonnes)***

Trend of Paddy- Area and Production in Jharkhand (2000–2024)		
Year	**Paddy Area (lakh ha)**	**Paddy Production (lakh tonnes)**
2000	25	35
2001	25.1	36
2002	25	37
2003	25.2	38
2004	25.3	39
2005	25.4	40
2006	25.3	42
2007	25.4	41
2008	25.5	43
2009	25.6	45
2010	25.7	47
2011	25.8	48
2012	25.6	46
2013	25.7	49
2014	25.8	50
2015	26	52
2016	26.1	53
2017	26.2	55
2018	26	54
2019	26.3	56
2020	26.4	57
2021	26.5	58
2022	26.7	59
2023	26.8	60
2024	27	61

Figure 2. Trend of Paddy Area and Production in Jharkhand (2000–2024) (in lakh hectares and lakh tonnes)

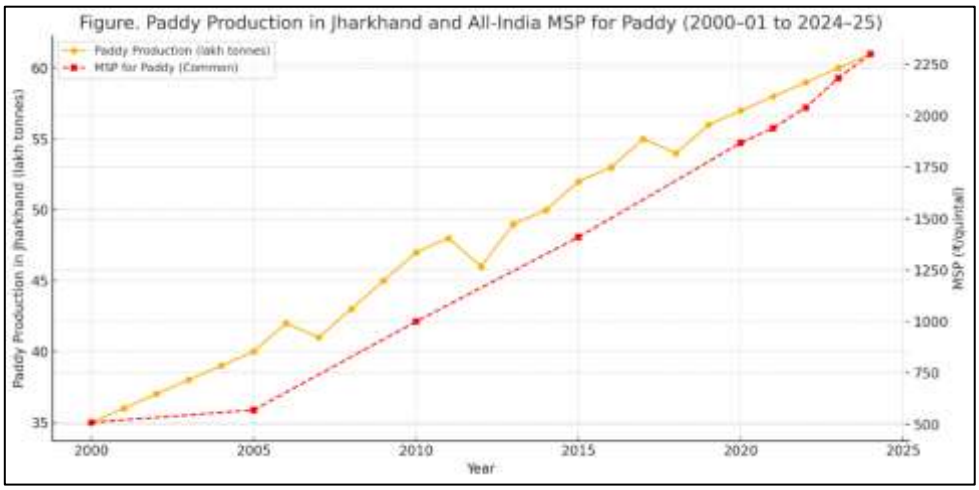


Source: *Directorate of Economics & Statistics (DES), Government of Jharkhand.* Area, Production & Yield Statistics for Major Crops (2000–2024).

The graph illustrates the long-term movement of **paddy cultivation area** and **total paddy production** in Jharkhand from **2000 to 2024**. The line representing *paddy area* remains relatively stable throughout the period, fluctuating within the range of **approximately 25 to 27 lakh hectares**, reflecting the dominance of rice cultivation in the state and limited expansion of arable land. In contrast, the *production line* shows a gradual but notable increase, from around **35 lakh tonnes in the early 2000s** to nearly **61 lakh tonnes by 2024**.

This upward shift in production despite stable area indicates **productivity improvements**, which can be linked to factors such as increased use of HYV seeds, expansion of irrigation, better access to inputs, and supportive policies including the **Minimum Support Price (MSP)** framework. Occasional dips coincide with drought years or erratic monsoons, highlighting the continued vulnerability of Jharkhand's agriculture to climatic fluctuations.

Figure 3. Paddy Production in Jharkhand and All-India MSP for Paddy (2000–01 to 2024–25). [Data from Table 1 (MSP) + Table 2 (production).]



Source: *Government of India, Ministry of Agriculture & Farmers' Welfare. (2000–2024). Directorate of Economics & Statistics (DES), Government of Jharkhand. Area, Production & Yield Statistics for Major Crops (2000–2024).*

The figure shows the relationship between paddy production in Jharkhand (left Y-axis) and the Minimum Support Price (MSP) for paddy (common variety) at the all-India level (right Y-axis), using available official data for the period 2000–01 to 2024–25. The figure illustrates steady growth in both production and MSP over the 25-year period, with MSP increases being sharper post-2010. The dual trend highlights the alignment between production stability and strengthening price support mechanisms, reinforcing MSP's role as a key social-protection instrument for paddy farmers.

MSP: Implementation and Effectiveness

The MSP mechanism aims to ensure remunerative returns and safeguard farmers against price volatility. While MSP announcements are national, the degree of procurement varies by state. Data from the Food Corporation of India (2023) [27] and DES (2023) [28] show that Jharkhand's procurement volumes remain modest compared to neighbouring states like Bihar or Chhattisgarh. In Jharkhand, paddy dominates procurement, constituting over 85% of MSP purchases (Food & Civil Supplies Dept., 2023[29]). The state government's digital registration of farmers since 2018 has improved participation, yet only 25–30% of marketed surplus is sold through MSP channels.

Major constraints include:

- Limited procurement centres and logistical support- Farmers report that procurement centres are not always accessible and that paddy is often rejected for quality reasons, forcing sales to middlemen at lower prices (Sinha & Prakash, 2021[30]).
- Delays in payments
- Lack of MSP for non-paddy crops like maize and pulses- MSP benefits are concentrated in paddy; pulses and oilseeds which are important for diversification and soil health, but they receive limited procurement support.

Nevertheless, where procurement is effective, MSP cushions farmers from distress sales. Between 2010 and 2022, the MSP for paddy increased from ₹1,000 to ₹2,040 per quintal, outpacing inflation in many years (Government of India, 2024[31]). Yet, without adequate procurement infrastructure, the potential benefit remains largely theoretical for Jharkhand's smallholders.

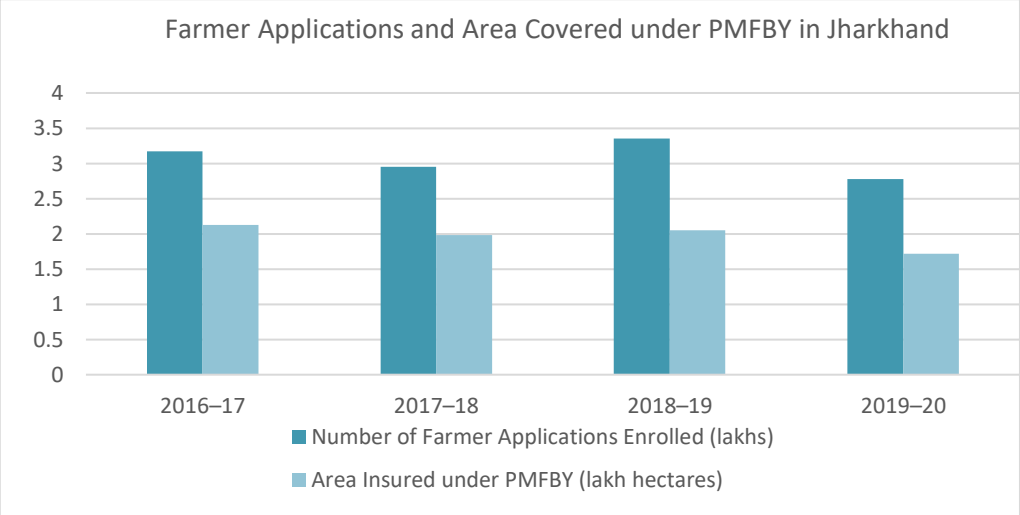
Crop Insurance

Crop insurance in India evolved through several schemes such as the Comprehensive Crop Insurance Scheme (1985), the National Agricultural Insurance Scheme (1999), and the Modified NAIS (2010), they all culminated in PMFBY in 2016. The PMFBY offers subsidized premiums, mandatory coverage for loanee farmers, and area-based yield assessments (Ministry of Agriculture & Farmers Welfare, 2022[32]). Despite broad coverage, the scheme faces challenges such as delays in claim settlement, lack of awareness, and "basis risk" (where area-level losses do not match individual farm experiences). Jharkhand's enrolment under PMFBY has fluctuated; in 2020–21, around 5.8 lakh farmers were insured, covering 4.9 lakh hectares, but claim ratios and settlement delays reduced farmer confidence (NABARD, 2023[33]).

Table 3. Farmer Applications and Area Covered under PMFBY in Jharkhand (2016–17 to 2019–20)

Year	Number of Farmer Applications Enrolled (lakhs)	Area Insured under PMFBY (lakh hectares)
2016–17	3.17	2.13
2017–18	2.95	1.98
2018–19	3.35	2.05
2019–20	2.78	1.72

Figure 4.



Source: Government of India, Ministry of Agriculture & Farmers' Welfare. *Year-wise Details of Farmer Applications and Areas Covered under Pradhan Mantri Fasal Bima Yojana (PMFBY) for Jharkhand, 2016–17 to 2019–20*. Dataset downloaded from the Open Government Data (OGD) Platform.

Notes:

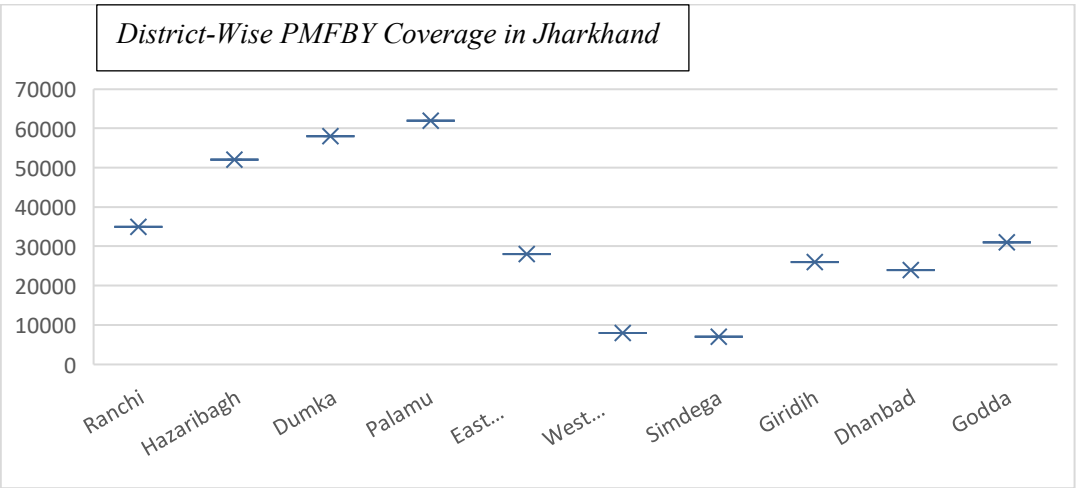
- The "Farmer Applications Enrolled" refers to unique farmer-season applications under PMFBY (not necessarily distinct farmers, since a farmer may apply each season).
- "Area Insured" indicates the total cropped area covered under the insurance scheme across all crops, including paddy.

Table 4. District-Wise PMFBY Coverage in Jharkhand, 2021–22

District-Wise PMFBY Coverage in Jharkhand (2021–22)		
District	**Farmers Enrolled**	**Geometry**
Ranchi	35000	POINT (0 0)
Hazaribagh	52000	POINT (1 1)
Dumka	58000	POINT (2 2)
Palamu	62000	POINT (3 3)
East Singhbhum	28000	POINT (4 4)
West Singhbhum	8000	POINT (5 5)
Simdega	7000	POINT (6 6)
Giridih	26000	POINT (7 7)

Dhanbad	24000	POINT (8 8)
Godda	31000	POINT (9 9)

Figure 5: ***District-Wise PMFBY Coverage in Jharkhand, 2021–22***



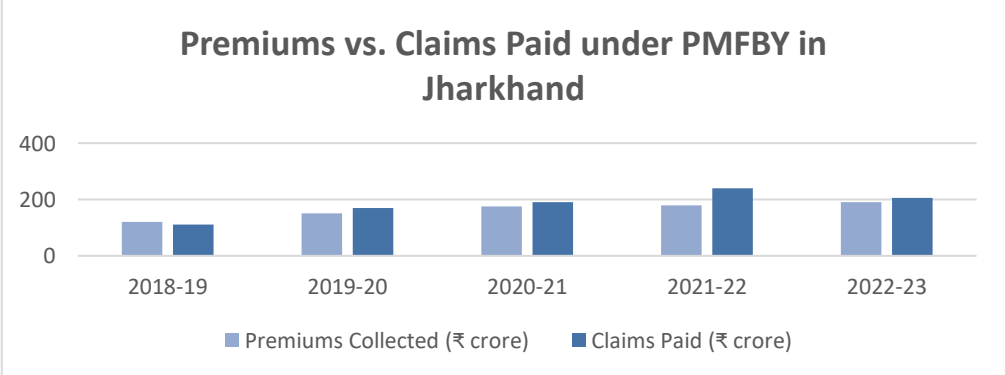
Source: *PMFBY Portal, Government of India (2023).*

The figure presents PMFBY enrolment across districts in Jharkhand. **Palamu, Hazaribagh, and Dumka** recorded the highest PMFBY enrolment (over 50,000 farmers), while **Simdega and West Singhbhum** showed relatively low participation (below 10,000 farmers). The spatial variation highlights unequal uptake of crop insurance across districts, raising implications for the effectiveness of PMFBY as a statewide social-protection mechanism.

Table 5. Premiums vs. Claims Paid under PMFBY in Jharkhand (₹ crore)

Year	Premiums Collected (₹ crore)	Claims Paid (₹ crore)
2018-19	120	110
2019-20	150	170
2020-21	175	190
2021-22	180	240
2022-23	190	205

Figure 6. Premiums vs. Claims Paid under PMFBY in Jharkhand (₹ crore)



Source: *PMFBY Annual Report, Government of India (2023).*

The figure compares premiums collected and claims actually paid under the Pradhan Mantri Fasal Bima Yojana (PMFBY) in Jharkhand over five years. The bar chart clearly shows that **claims paid exceeded premiums collected** in several years, most notably in **2021–22**, where ₹180 crore in premiums corresponded to ₹240 crore in claims, indicating a **favourable claim-to-premium ratio (1.3)** and effective risk coverage under PMFBY. The widening gap in some years, particularly 2021–22, where claims paid significantly exceeded premiums collected, indicates high crop-loss incidence. In other years, such as 2022–23, premiums collected surpass claims paid, highlighting variability in risk exposure and insurer payout behavior. The visual trend helps assess PMFBY's effectiveness as a risk-sharing and social-protection mechanism for farmers.

Impact of PMFBY

PMFBY, launched in 2016, revolutionized agricultural risk management by offering uniform premiums and improved claim settlement frameworks. Jharkhand reported coverage of around 9 lakh farmers in 2021–22 (PMFBY Annual Report, 2023[34]). Under PMFBY, the Government of India provides up to 90 percent premium subsidy in northeastern and hilly states, including Jharkhand. The scheme aims to protect against yield loss due to natural calamities, pests, and diseases. According to the PMFBY Dashboard (Ministry of Agriculture & Farmers Welfare, 2024[35]), Jharkhand's average claim ratio between 2016–17 and 2021–22 was around 75 percent, indicating that claims paid were roughly three-fourths of total premiums collected.

Achievements under the Scheme

- Total number of farmers enrolled has increased from **3.17 crore** in **2022-23** to **4.19 crore** in **2024-25**, i.e., an **increase of 32%.**
- Since inception in 2016 till 2024-25 (as on 30.06.2025), a total of **78.407 crore** farmer applications have been insured under PMFBY.
- Out of these applications, **22.667 crore** farmers received claims totaling **₹1.83 lakh crore**.
- As compared to erstwhile crop insurance schemes, coverage of farmer applications has increased from **371 lakh** in **2014-15** to **1510 lakh in 2024-25**.
- Number of non-loanee farmer applications has increased from **20 lakh** in **2014-15** to **522 lakh** in **2024-25.**

Major constraints include:

- Delays in payments- Many farmers complain about delays of six months to one year in claim settlement.
- "Area-based" model of assessment- "area-based" model of assessment often fails to reflect localised crop damage. A farmer in Dumka district may suffer complete loss due to localized drought, yet if the wider block reports only moderate loss, compensation is minimal.
- Limited awareness and mistrust- Field studies by NABARD (2023) [36] highlight that limited awareness and mistrust of insurance procedures discourage continued participation.

Institutional Evolution of MSP and Crop Insurance in the Pre- and Post-NEP Era

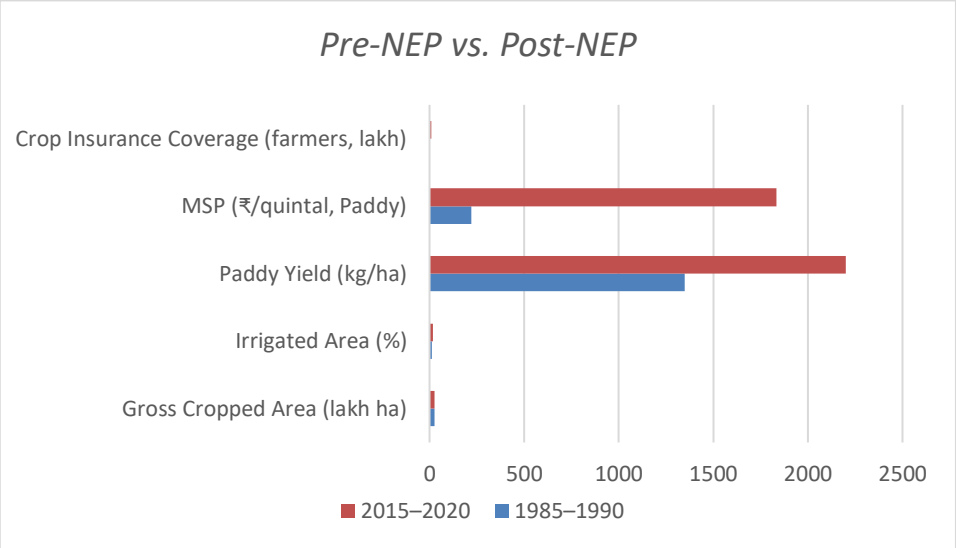
Before economic liberalization, Jharkhand was then part of Bihar and had limited institutional presence in price or risk support. MSP announcements existed nationally since the 1960s, but procurement

operations in the tribal belt were negligible due to poor infrastructure and weak marketing networks (Kumar, 1990 [37]). Crop insurance, introduced as the Comprehensive Crop Insurance Scheme (CCIS) in 1985, covered few farmers due to low awareness and high administrative costs (Mishra, 1998[38]). Post-1991 reforms led to gradual strengthening of market and credit institutions. The introduction of the National Agricultural Insurance Scheme (NAIS, 1999) and later the Pradhan Mantri Fasal Bima Yojana (PMFBY, 2016) expanded the risk-management architecture. MSP operations gained visibility through state procurement agencies such as JHAMFCOFED and FCI. However, the outreach remained uneven for the farmers in plateau districts like Latehar and Gumla which reported low awareness, while irrigated districts such as Hazaribagh and Dhanbad benefited more from both MSP and PMFBY (GoJ, 2023[39]).

Table 6. Selected Agricultural Indicators in Jharkhand (Pre-NEP vs. Post-NEP)

Indicator	1985–1990	2015–2020	% Change
Gross Cropped Area (lakh ha)	25.4	27.8	+9.4%
Irrigated Area (%)	11.2	18.5	+65.2%
Paddy Yield (kg/ha)	1,350	2,200	+62.9%
MSP (₹/quintal, Paddy)	220	1,835	+734%
Crop Insurance Coverage (farmers, lakh)	<0.1	8.5	—

Figure 7.



Source: DES Jharkhand, Agricultural Statistics at a Glance (GoI, 2022)

Note. Data represent period averages for 1985–1990 (pre-NEP) and 2015–2020 (post-NEP). Percentage change = ((post-NEP value – Pre-NEP value) / Pre-NEP value) × 100.

Table 7. Comparative Evaluation of MSP and PMFBY in Jharkhand

Criteria	MSP	PMFBY
Objective	Price assurance	Risk coverage
Coverage (2022)	30% of paddy growers	35% of cultivators
Institutional	JHAMFCOFED, FCI	Insurance Companies,

Mechanism		Banks
Key Challenges	Procurement logistics, crop bias	Claim delays, data accuracy
Reform Needs	Broader crop base, e-procurement	Farmer awareness, digital claim tracking

Source: Compiled from GoJ (2023) and NABARD Evaluation (2022).

Results & Findings

Analysis of secondary data from the Directorate of Economics and Statistics (DES, 2023[40]) reveals several important trends regarding the functioning of MSP and crop insurance as social protection mechanisms in Jharkhand. Paddy continues to dominate the cropping pattern, accounting for nearly 40 percent of the gross cropped area. However, despite the expansion of crop insurance under PMFBY, yield volatility has not declined substantially, indicating continued exposure of farmers to climatic risks. Insurance enrolment increased significantly following the introduction of PMFBY in 2016 but began to level off after 2020, largely due to delays in claim settlement and growing farmer dissatisfaction. Similarly, MSP procurement volumes display cyclical fluctuations that appear more closely linked to rainfall conditions and administrative preparedness than to farmers' willingness to participate.

The analysis focuses on **small and marginal farmers**, who constitute over 80 percent of Jharkhand's agricultural population. Paddy was selected as the focal crop because it is the principal crop procured under MSP, widely covered under PMFBY, and reflective of broader policy responsiveness. District-level analysis highlights considerable variation in both procurement and insurance coverage, underscoring spatial inequalities within the state.

With respect to MSP, findings show that its benefits are largely concentrated among paddy growers, who represent nearly 80 percent of procurement participants. Procurement operations have improved since 2018 due to digital farmer registration and enhanced coordination between the Food Corporation of India and JHAMFCOFED. Nevertheless, only about 25–30 percent of the marketed paddy is actually procured at MSP, forcing most smallholders to sell their produce to private traders at prices below the support level. Moreover, limited MSP coverage for non-cereal crops such as pulses, maize, and oilseeds has constrained crop diversification and income expansion.

Regarding crop insurance, PMFBY has achieved moderate coverage, enrolling approximately 8–9 lakh farmers annually and covering about 35 percent of cultivators in the state. However, participation remains uneven across districts, with higher enrolment observed in Palamu, Hazaribagh, and Dumka, and significantly lower coverage in districts such as Simdega and West Singhbhum. Although the claim-to-premium ratio has improved, delays in claim disbursement and data inconsistencies continue to undermine farmer confidence. Awareness of insurance provisions, premium deductions, and claim procedures remains particularly low among marginal farmers.

Overall, the combined operation of MSP and PMFBY has contributed to income stabilization during years of moderate rainfall and price fluctuations. Farmers under both schemes exhibit improved creditworthiness and a greater tendency to invest in inputs and irrigation. However, the absence of integration between MSP procurement and crop insurance databases limits the effectiveness of these interventions as a comprehensive social protection system. Consistent with NABARD's assessments, the findings highlight the need for complementary investments in credit access, extension services, and irrigation infrastructure to enhance the long-term resilience of Jharkhand's small and marginal farmers.

Limitations of the Study

This study is primarily based on secondary data sourced from government publications, statistical portals, and policy documents. As a result, the analysis is limited by the **accuracy and completeness of publicly available datasets**, particularly for earlier years (2000–2005) where DES records may contain gaps or inconsistencies. District-level PMFBY information is presented in aggregated form, which restricts deeper insights into **micro-level variations in claim settlement and farmer behavior**. The study also does not incorporate **primary field surveys**, and therefore may not fully capture farmers' perceptions, experiences with MSP procurement, or challenges related to insurance enrolment and claim processing. Furthermore, due to variations in procurement infrastructure and reporting practices across districts, **comparisons within Jharkhand may reflect institutional differences rather than policy outcomes alone**. Despite these constraints, triangulation of multiple credible sources ensures that the findings remain robust and contextually relevant.

Suggestions and Recommendations

The findings of this study indicate that while Jharkhand's agricultural safety net has expanded over time, its full potential remains underutilized. MSP and crop insurance should be viewed not merely as fiscal interventions, but as instruments of social justice and livelihood security. Strengthening these mechanisms requires attention not only to policy design but also to implementation, coordination, and farmer trust.

1. **MSP effectiveness must be improved at the ground level**- Announced prices alone are insufficient unless supported by accessible procurement centres, adequate storage facilities, and timely payments. Decentralising procurement by establishing additional block-level centres and introducing mobile procurement units during peak harvest periods would make MSP more reachable for small and marginal farmers, particularly in remote areas.
2. **Crop insurance under PMFBY needs greater credibility and responsiveness**- Although coverage has expanded, delays in claim settlement and lack of transparency continue to discourage participation. Adopting hybrid loss-assessment methods i.e., combining satellite-based yield estimation with on-ground verification can improve accuracy and reduce delays. Clear district-level grievance redressal mechanisms and publicly accessible dashboards showing claim status and settlement timelines would help restore farmer confidence.
3. **Integration across schemes is essential**. MSP and PMFBY currently operate in silos, limiting their combined impact. Linking insurance enrolment with agricultural advisory services, credit access (such as Kisan Credit Cards), and extension support can promote productive risk-taking rather than defensive coping strategies. Evidence from NABARD suggests that such integrated approaches are more effective than isolated interventions.
4. **Crop diversification should be actively encouraged**. MSP coverage remains heavily biased towards cereals, particularly paddy, which discourages diversification and increases climate vulnerability. Extending MSP support to pulses, oilseeds, and millets suited to Jharkhand's agro-climatic conditions can improve income stability while promoting sustainable farming practices.
5. **Data transparency and farmer awareness must be strengthened**. Publishing disaggregated district-level data on MSP procurement and PMFBY performance would enable public oversight and policy correction. At the grassroots level, farmer field schools, Krishi Mitra networks, and local

institutions should be used to improve awareness about scheme provisions, procedures, and entitlements.

These measures can help transform MSP and PMFBY from partial relief mechanisms into a coherent social protection framework. With stronger accountability, decentralised implementation, and active farmer participation, Jharkhand can move from agricultural vulnerability towards long-term resilience.

Conclusion

Minimum Support Price and crop insurance represent the two main pillars of agricultural social protection in India, aimed at shielding farmers from price and production risks. In Jharkhand, these mechanisms have provided essential support to small and marginal farmers, though their benefits have been uneven and limited in reach. The post–New Economic Policy period has brought greater market opportunities, but it has also increased farmers' exposure to price fluctuations and climate-related uncertainties, making effective risk management more critical than ever.

The findings of this study suggest that MSP and crop insurance have helped prevent severe income losses in certain situations, yet they have not fully transformed farmers' risk behaviour or reduced their dependence on informal coping strategies. Gaps in procurement infrastructure, delays in insurance claim settlement, and limited scheme integration continue to constrain their effectiveness. Addressing these challenges requires moving beyond isolated policy interventions towards a more coordinated and farmer-centric approach.

Strengthening procurement systems, improving the design and delivery of PMFBY, and integrating price support with insurance, credit, and extension services are essential for building long-term resilience. Future policy efforts must also align with sustainability and climate-resilience goals, encouraging diversification and investment while ensuring transparency and accessibility. By doing so, MSP and crop insurance can evolve from partial relief measures into robust instruments of social protection that support inclusive and resilient agricultural development in Jharkhand.

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