



ROLE OF PMFBY IN AGRICULTURE RISK MANAGEMENT – A HOLISTIC EVALUATION

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ABSTRACT

The Pradhan Mantri Fasal Bima Yojana (PMFBY) is a pivotal move aimed at mitigating risks faced by Indian farmers, providing comprehensive coverage against crop losses brought on by unnatural disasters. Despite challenges such as low awareness and delayed settlements, PMFBY has significantly increased farmer enrollment and insured areas which is proved by trend percentage and CAGR. It fosters agricultural sustainability, encourages modern practices, and reduces reliance on informal loans. The scheme's subsidized premiums ensure affordability, while timely claim settlements and technological advancements enhance its effectiveness. Analysis of premiums, sum insured, and claims paid demonstrates PMFBY's substantial impact in assisting farmers during crises.

KEYWORDS :

INTRODUCTION

Agriculture risk refers to the various uncertainties and potential losses that farmers face due to adverse weather conditions, pests and diseases, market volatility, and policy changes. In India, agriculture is highly susceptible to such risks due to its dependence on monsoons, fragmented landholdings, and inadequate infrastructure. To manage agriculture risk, GOI employs various strategies, and crop insurance like NAIS, MNAIS, and RWBCIS including the PMFBY. PMFBY, launched in 2016, aims to give farmers financial assistance if their crops fail or are harmed by natural disasters. It shelters all phases of crop production, providing thorough risk coverage from pre-sowing to post-harvest losses.

An Overview Of PMFBY

The main objective of India's extensive Crop Insurance Scheme, the Pradhan Mantri Fasal Bima Yojana, is to give farmers financial security if their crops are lost or damaged. It covers all farmers, including tenants and sharecroppers, as well as those who have taken loans for cultivation, encompassing various crops such as food crops, oilseeds, and horticultural crops. The scheme offers subsidized premiums, keeping rates low to encourage broad participation. In case of crop loss due to natural calamities like droughts, floods, or pests, farmers are entitled to compensation as per scheme guidelines, with a transparent and swift claim settlement process ensuring timely assistance. Implemented by the MoA&FW in collaboration with state governments and insurance companies, PMFBY not only protects farmers against financial risks but also facilitates access to credit and enhances overall agricultural productivity through continuous reforms, including technological advancements and improved transparency in operations.

Table – 1: Comparison Of PMFBY With NAIS And MNAIS

Features	PMFBY	NAIS	MNAIS
Premium rate	Low	Low	High
One season-one premium	Yes	Yes	No
Coverage of Insurance amount	Full	Full	Capped
On account payment	Yes	No	Yes
Coverage of localized risk	Hailstorms, landslides, inundation.	No	Hailstorm, landslide

Coverage of post-harvest losses	All India	No	Coastal areas
Prevented sowing coverage	Yes	No	Yes
Technology Usage	Mandatory	No	Intended
Insurance companies	Government and Private Companies	Only Government	Government and Private Companies

Source: PIB, Ministry of Agriculture and Farmers Welfare

Rationale Behind PMFBY

PMFBY serves multifaceted goals in bolstering India's agricultural sector. Firstly, it provides vital financial protection to farmers against losses caused by natural calamities and agricultural challenges like pests and diseases, mitigating the risks they face, particularly during unpredictable monsoons. Secondly, by offering insurance coverage, PMFBY encourages farmers to adopt modern farming practices and invest in high-quality inputs, ultimately fostering agricultural sustainability and productivity. Additionally, the scheme reduces farmers' reliance on informal loans and curbing indebtedness by compensating for crop losses. Furthermore, PMFBY promotes inclusive growth by extending coverage to small and marginal farmers, ensuring accessibility regardless of socioeconomic status through premium subsidies. Finally, by instilling confidence through insurance, PMFBY stimulates investment in agriculture, leading to enhanced yields, increased farmer incomes, and overall economic development in rural areas.

Regulatory Framework Of PMFBY

The successful implementation of PMFBY relies on a collaborative effort involving various governmental and regulatory bodies at different levels. At the central level, MoA&FW plays a pivotal role in formulating policies and overseeing agricultural initiatives like PMFBY. IRDAI confirms compliance with insurance regulations and oversees participating insurance companies' operations. The Agricultural Insurance Company of India Limited (AIC) is a key player in underwriting policies and managing crop loss assessments and claim settlements. At the state level, state governments and their designated State Nodal Agencies (SNAs) work closely with local stakeholders to facilitate PMFBY's smooth execution, including coordinating with financial institutions and insurance providers. Additionally, District Level Committees (DLCs) are instrumental in supervising implementation at the grassroots level, addressing farmer grievances, and ensuring effective communication between various stakeholders. This

collaborative framework ensures the effective implementation and management of PMFBY across different regions of India.



Figure – 1: Regulatory Framework

An Overview Of The Government Policy Support For PMFBY

The government provides robust policy support for the PMFBY to ensure its effectiveness in safeguarding farmers against crop losses. Premium subsidies are offered to make insurance affordable, with farmers paying a nominal percentage of the total insured amount. PMFBY provides comprehensive protection against yield losses caused by various disasters, including insect infestations, floods, and droughts. Catastrophic cover extends compensation for widespread losses, ensuring farmers are supported in the event of significant agricultural setbacks. Timely settlement of claims is mandated, with insurance companies required to resolve claims promptly following crop-cutting experiments. The

Table – 2: Farmers' Enrollment And Area Insured

Year/ Season	Kharif				Rabi			
	No. of Farmers Enrolled	Trend (%)	Area Insured (In thousand Hectares)	Trend (%)	No. of Farmers Enrolled	Trend (%)	Area Insured (In thousand Hectares)	Trend (%)
2018	30738153	100	27831.35	100	22045537	100	19793.86	100
2019	38307869	124	29263.46	105	17666946	80	15420.93	77
2020	40957383	133	27181.19	97	19829538	89	15730.37	79
2021	49496833	161	23920.29	85	32502173	147	14816.10	74
2022	67409459	219	24938.99	89	42214335	191	14868.96	75
2023	84972983	276	30528.63	109	50694959	229	16695.47	84
Total	311882680	-	163663.91	-	184953488	-	97325.69	-
CAGR	18.5	-	1.6	-	14.9	-	-2.8	-

Source: The Researcher Compiled The Data From The PMFBY Website

Table – 3: Status of Premium, Sum Insured and Disbursement of Claim

Year / Season	Kharif					Rabi				
	Farmers Premium (in Lakh)	Sum Insured (in Lakh)	Amount of Claim Paid (in Lakh)	Claim to Premium ratio	Claim to Sum Insured Ratio	Farmers Premium (in Lakh)	Sum Insured (in Lakh)	Amount of Claim Paid (in Lakh)	Claim to Premium ratio	Claim to Sum Insured Ratio
2018	261310	12406740	1449925	5.55	0.12	161533	9260432	837740	5.19	0.09
2019	248145	13413087	2000960	8.06	0.15	133650	7186703	547727	4.09	0.07
2020	243795	11026982	1343871	5.51	0.12	142248	8440864	587732	4.13	0.06
2021	213471	9631 843	1312806	6.14	0.14	138520	7860758	493129	3.55	0.06
2022	229183	11896272	1026399	4.48	0.08	142922	8669867	526366	3.68	0.06
2023	161450	16044690	281575	1.74	0.02	141193	9405007	6448	0.05	0.00
Total	1357354	74419614	7415536	-	-	860066	50823631	2999142	-	-

Source: The Researcher Compiled The Data From The PMFBY Website

scheme leverages technology such as satellite imaging and remote sensing to accurately quantify agricultural losses and expedite claim settlements. Government-led awareness and outreach initiatives educate farmers about the benefits of crop insurance under PMFBY, fostering participation and understanding. State and district-level committees supervise the scheme's execution, addressing farmers' concerns and ensuring transparency and accountability in its implementation. Overall, these policy measures demonstrate the government's commitment to supporting farmers and enhancing the resilience of India's agricultural sector through PMFBY.

Challenges In The Implementation Of PMFBY

PMFBY, while designed to provide crucial financial protection to farmers, faces several challenges hindering its effectiveness. One of the important impediments is the low awareness and participation rates, particularly among small and marginal farmers, who may not fully grasp the scheme's benefits or even be aware of its existence. Furthermore, delayed claim settlements due to administrative inefficiencies and bureaucratic hurdles erode farmers' trust in the scheme, impacting its credibility. Inadequate coverage and exclusions pose another issue, leaving farmers vulnerable to risks that are not adequately addressed by PMFBY. Moreover, premium affordability remains a concern, especially for small-scale farmers, despite government subsidies to ease the financial burden. Additionally, challenges related to data accuracy in yield estimation, through processes like Crop Cutting Experiments (CCEs), undermine the fairness and reliability of insurance payouts. Furthermore, issues such as adverse selection and moral hazard can strain the financial sustainability of the scheme. Finally, the lack of customization in PMFBY's one-size-fits-all approach fails to cater to the diverse risk profiles and needs of different regions and farming communities across the country. Addressing these challenges is essential to enhancing the effectiveness and inclusivity of PMFBY in safeguarding the interests of India's farming population.

Performance Of PMFBY

To evaluate the performance of PMFBY, farmers' enrollment, area insured, premium, sum insured, and claim paid have been considered, and also a few operational statistics have been presented in the following table.

In the table-2 illustrates the enrollment of farmers and the insured area under PMFBY for both the Kharif and Rabi seasons over the study period. Farmer enrollment has consistently risen, with a notable CAGR of 18.5% for Kharif and 14.9% for Rabi. However, the insured area has exhibited fluctuations, particularly in the Rabi season, where it initially declined from 2018 to 2019, followed by stability. Conversely, the insured area for Kharif crops experienced an initial increase, a slight dip in 2020, and subsequent growth. Overall, while the insured area for Rabi crops shows a declining trend with a CAGR of -2.8%, Kharif crops demonstrate a positive trend with a CAGR of 1.6%. In a nutshell, both farmer enrollment and insured area have significantly increased over the study period, despite fluctuations in insured area trends.

In the table-3 depicts the data relating to premiums paid by farmers, Sum insured, amount of claims paid, claim-to-premium ratio, and claim-to-sum insured ratio for both the Kharif and rabi seasons.

The farmers' premium and sum insured show fluctuations over the years for both the Kharif and Rabi seasons. There's a general variation trend, but the overall figures indicate significant amounts involved in crop insurance, particularly in the sum insured.

The amount of claim paid varies annually for both Kharif and Rabi seasons. There's a notable amount of claims paid out to farmers, indicating instances of crop losses or damages covered by insurance.

The claim-to-premium ratio represents the efficiency of the insurance scheme in terms of payouts relative to the premiums collected. Generally, the ratios are relatively high, indicating that for every unit of premium paid by farmers, a significant portion is disbursed as claims. This suggests that the insurance scheme is providing substantial benefits to farmers in times of crop loss or damage.

The claim-to-sum insured ratio assesses the proportion of the sum insured paid out as claims. The ratios are relatively low, indicating that only a small portion of the insured sum is paid as a claim by the insurance company. This could imply a lower incidence of crop losses than the insured amount.

CONCLUSION

To sum up, the government's PMFBY policy aims to provide a safety net for farmers against crop losses, promote modern agricultural practices, and foster sustainable farming in India. Its introduction reflects a commitment to addressing challenges faced by farmers and supporting the farm sector's long-term sustainability. The regulatory framework involves multiple stakeholders ensuring effective implementation and financial protection for farmers. The future of PMFBY in 2047 hinges on its adaptability to emerging challenges, innovation, and responsiveness to evolving farmer and sector needs.

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