

RETHINKING CROP INSURANCE IN INDIA: EVALUATING THE DYNAMICS OF AGRICULTURAL INSURANCE IN INDIA THROUGH THE LENS OF PRADHAN MANTRI FASAL BIMA YOJANA

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Abstract

India's economy is heavily dependent on agriculture, which accounts for about 18% of GDP (gross value added), according to the Economic Survey 2021–2022. As a result, crops become essential resources that affect the country's economy as well as the lives of farmers. Farmers can choose to insure their crops through the Pradhan Mantri Fasal Bima Yojana, a program intended to offer coverage against various hazards linked with farming, to protect this important asset. This study explores the performance and developmental elements of the current agriculture insurance programs in India by doing a thorough assessment and analysis of the literature using the content analysis approach. A lopsided benefit pattern, insufficient government backing, an unworkable subsidy system, and protracted delays in claim settlement are all present in the Pradhan Mantri Fasal Bima Yojana (PMFBY). It is advised that to solve these problems, a demand-driven strategy that is technologically integrated be used. Distinguishing crop insurance from political affiliations is crucial. This change is necessary because farmers will benefit from the crop insurance program considerably more than insurers, administrators, and politicians will because of the PMFBY's speed, diversity, and verifiability.

Keywords: PMFBY, Agriculture Insurance, Farmers, Economic Development

Introduction

The agricultural industry, which employs a large percentage of the workers and significantly contributes to the GDP, is crucial to India's economic stability. Throughout the years, the Indian government has undertaken several agricultural projects aimed at promoting sustainable development, increasing agricultural output, and improving farmer welfare. However, the industry has several difficulties, including low productivity, dispersed landholdings, unpredictability in the environment, and restricted access to markets and modern technologies. The Indian government has implemented several agricultural programs and policies in response to these difficulties and to

improve the agricultural community. The goals of these programs are to raise farmers' incomes, boost farm production, build agricultural infrastructure, and promote sustainable farming methods. The Indian government recognizes that agriculture is essential to achieving food security, reducing poverty, and promoting rural development. As a result, it has unveiled a multitude of programs, each designed to target distinct aspects of the agricultural value chain. These programs include a broad range of topics, such as market accessibility, financial aid, crop insurance, irrigation, soil health, and technology diffusion.

The Indian government's emphasis on agricultural schemes can be traced back to the early years of independence, marked by the initiation of land reforms and green revolution initiatives aimed at enhancing agricultural production (Mujumdar, 2006). With time, these programs have expanded to include more ground, including market connections, crop insurance, technology adoption, irrigation, and loan availability (Fan & Hazell, 2001).

The Indian government introduced the Pradhan Mantri Fasal Bima Yojana Scheme (PMFBYS), a crop insurance program in 2016. Its main goal is to shield farmers against crop damage brought on by pests, diseases, and natural calamities. The programs are meant to provide farmers with all-inclusive coverage, which includes coverage for post-harvest losses, specific calamities, and yield losses. One of the important crops this effort covers is paddy.

All farmers, including sharecroppers and tenant farmers, are covered by the program, which is being implemented by the Department of Agriculture, Cooperation, and Farmers' Welfare. Interestingly, farmers have the freedom to choose to participate in or not participate in the program at any time because it is voluntary. The central and state governments split the premium subsidies equally to fund the program.

Despite the many advantages of the Pradhan Mantri Fasal Bima Yojana Scheme (PMFBYS), there are still obstacles in the way of its successful implementation in paddy agriculture (Chaubey et al., 2022). These difficulties include problems with awareness, inadequate infrastructure, and difficulties in determining and confirming agricultural losses.

PMFBYS has a great deal of promise to help farmers who grow paddy. However, to assess its efficacy and identify areas for improvement, a more thorough analysis through more research is necessary. By analyzing farmer involvement, the covered area, farmers' awareness, the claims settlement process, and other relevant factors, this study highlights the scheme's efficacy.

Objectives

- To study the effectiveness of the Pradhan Mantri Fasal Bima Yojana Scheme

Methodology

A comprehensive literature review was undertaken across major databases such as Scopus, Web of Science, ProQuest, AGRICOLA, AGRIS, and Google search engines. Additionally, information was sourced from the annual reports of the Ministry of Agriculture and Farmers Welfare, Government of India. The search employed keywords like Crop Insurance, Agriculture Loans, National Agriculture Schemes, and India to ensure relevance to the Indian context. The identified articles were meticulously gathered, excluding duplicates. Rigorous quality control measures were implemented, with two researchers independently reviewing the selected articles. Critical insights

were also extracted from government ministry websites and annual reports, forming the basis for the findings presented in the results and discussion section.

Results & Discussion

This paper conducts a comprehensive review and analysis of the existing literature, employing a content analysis method to scrutinize the development and performance aspects of agriculture insurance schemes in India.

An important risk management strategy is agriculture insurance, although most Indian farmers do not have easy access to it. Every ten years, the Indian government launches a brand-new agricultural program, but due to flaws in its operations, each crop insurance program has been uneven and ineffectual. Farmers' discontent with agriculture insurance turned out to be unfavorable word of mouth, even though agriculture insurance in India is still growing in terms of coverage, breadth, and exposure. The primary causes of restricted access to crop insurance are farmers' preference for agriculture relief payments and insurance illiteracy. Implementation problems at the state level lead to incorrect operation of the current crop insurance programs (Singh & Agrawal., 2020).

India has the world's largest crop insurance system, covering 2.5 crore farmers (Bhushan et al., 2016). However, because of problems with insurance design and delayed claim payments, 95 million farmers are currently without coverage (Mahul et al., 2012). The two primary agricultural insurance plans now in use in the country are PMFBY and RWBCIS. These programs received official recognition on February 18, 2016, as Public-Private Partnerships (PPPs), giving the government significant control over insurance service strategy, subsidy levels, and insured volumes.

Since its launch in 2016, the Pradhan Mantri Fasal Bima Yojana (PMFBY), the current farm insurance program, has had several difficulties, mostly concerning assessing crop damage. There have been problems with inefficiency and failure with PMFBY's initial implementation, particularly concerning the assessment of crop losses and prompt payment of claims into farmers' accounts (Gulati et al., 2018).

Table 1: Enrolment Data from 2018-2022 (Kharif Season)

Year	2018	2019	2020	2021	2022
Season: Kharif					
States/UTs	22	20	19	19	19
Districts	475	463	391	404	383
Insurance Units	1,47,836	1,56,520	1,27,553	1,21,733	1,27,127

(Source:<https://pmfby.gov.in/adminStatistics/dashboard>)

Table 2: Enrolment Data from 2018-2022 (Rabi Season)

Year	2018	2019	2020	2021	2022
Season: Rabi					

States/UTs	21	19	18	19	17
Districts	486	445	389	410	408
Insurance Units	1,35,020	1,26,843	1,12,539	1,14,591	1,12,639

(Source: <https://pmfby.gov.in/adminStatistics/dashboard>)

Table 3: Farmers Coverage Data from 2018-2022.

Coverage (Kharif)					
	2018	2019	2020	2021	2022
Farmers	2,16,63,395	2,00,50,883	1,68,70,111	1,50,95,028	1,53,81,333
Coverage (Rabi)					
Farmers	1,46,85,273	96,60,447	1,00,07,688	98,09,987	81,54,403

(Source: <https://pmfby.gov.in/adminStatistics/dashboard>)

Table 4: Premium & Sum Insured 2018-2022 (Kharif)

Year	2018	2019	2020	2021	2022	2023
Kharif						
Premium & Sum Insured						
Farmers Premium(In Lac.)	2,61,310	2,48,347	2,43,796	2,13,472	2,29,460	1,43,811
State/UTs Premium(In Lac.)	7,45,134	9,09,110	8,43,204	7,68,761	8,05,314	8,56,786
GoI Premium(In Lac.)	7,18,461	8,18,686	8,05,339	7,35,839	7,37,778	6,86,794
Gross Premium(In Lac.)	17,24,905	19,76,143	18,92,339	17,18,072	17,72,552	16,87,391
Sum Insured(In Lac.)	1,24,06,740	1,34,23,181	1,10,26,990	96,31,876	1,18,99,344	1,33,55,407

(Source: <https://pmfby.gov.in/adminStatistics/dashboard>)

Table 5: Premium & Sum Insured 2018-2022 (Rabi)

Year	2018	2019	2020	2021	2022
Rabi					
Premium & Sum Insured					
Farmers Premium(In Lac.)	1,61,533	1,33,650	1,42,261	1,38,520	1,43,365
State/UTs Premium(In Lac.)	3,32,096	3,25,103	5,34,433	5,28,941	5,42,499
GoI Premium(In Lac.)	3,21,600	3,18,554	4,31,007	4,40,190	4,19,757
Gross Premium(In Lac.)	8,15,229	7,77,307	11,07,701	11,07,651	11,05,621
Sum Insured(In Lac.)	92,60,432	71,86,703	84,41,115	78,60,763	86,75,999

(Source: <https://pmfby.gov.in/adminStatistics/dashboard>)

Table 6: PMFBY & RWBCIS Combined - State-Wise Business Statistics as of 31.08.2021

PMFBY & RWBCIS Combined - State Wise Business Statistics as of 31.08.2021			
State/UT Name	Reported Claims	Paid Claims	Farmer Applications Benefitted (Lakh)
A & N Islands	0	-	-
Andhra Pradesh	1,259.01	1,254.03	13.533
Assam	17.27	-	-
Bihar	-	-	-
Chhattisgarh	1,314.60	1,296.59	15.025
Goa	0.01	0.01	0.001
Gujarat	354.89	111.67	0.927
Haryana	932.26	927.45	5.552
Himachal Pradesh	64.6	58.01	1.505
Jammu & Kashmir	-	-	-
Jharkhand	25.46	-	-
Karnataka	1,357.79	1,215.35	6.869
Kerala	85.9	85.9	0.457
Madhya Pradesh	5,905.48	5,811.75	30.546
Maharashtra	6,755.92	6,747.05	87.895
Manipur	1.14	1.14	0.032
Meghalaya	0.18	0.18	0.005
Odisha	1,177.91	1,139.48	12.078
Puducherry	7.16	-	-
Rajasthan	4,920.44	4,920.31	25.574
Sikkim	-	-	-
Tamil Nadu	1,090.13	1,056.84	13.213
Telangana	402.28	-	-
Tripura	0.81	0.8	0.077
Uttar Pradesh	1,116.75	1,092.74	9.343
Uttarakhand	103.18	103.17	0.949
West Bengal	-	-	-
GRAND TOTAL	26,893	25,822	223.6

(Source: <https://pmfby.gov.in/adminStatistics/dashboard>)

The Pradhan Mantri Fasal Bima Yojana (PMFBY) and the Restructured Weather-Based Crop Insurance Scheme (RWBCIS) are shown in detail in the tables that follow, covering the years 2018 through 2022. While the number of districts and states/UTs fluctuated during the Kharif season, Table 1's enrollment data indicates that the count of insurance units peaked in 2019. Table 2 presents enrollment statistics for the Rabi season and shows that the number of states/UTs and districts varies, with 2018 having the greatest number of insurance units recorded.

Data on farmers' coverage for the Kharif and Rabi seasons in the designated years is shown in Table 3. Remarkably, during the term, the coverage for both seasons decreased, with fewer farmers insured in 2022 than in 2018.

Details on the premium and total insured for the Rabi and Kharif seasons are included in Tables 4 and 5, respectively. The yearly fluctuations in the sum insured amounts, gross premiums, state/UT premiums, and farmers' premiums are displayed in these tables. For example, the total insured reached its peak in 2018 for Rabi and in 2023 for Kharif.

Last but not least, Table 6 presents business statistics by state as of August 31, 2021, integrating PMFBY and RWBCIS. It comprises the number of farmer applications that were approved for benefits throughout all states and union territories, as well as reported and paid claims.

When taken as a whole, these figures provide a thorough overview of the enrolment, coverage, premiums, and claims under PMFBY and RWBCIS. They also provide insightful information about the dynamics and performance of these crop insurance programs from 2018 to 2022.

Conclusion

This research paper highlights the need for comprehensive reforms in the PMFBY to address its current shortcomings and make it more responsive, efficient, and equitable for farmers. Implementing a technology-driven, demand-driven, and politically unbiased approach could contribute to the success of the crop insurance scheme.

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