

Performance of Pradhan Mantri Fasal Bima Yojana (PMFBY): A Case study of Jind District of Haryana

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ABSTRACT

Agriculture has a prominent place in the Indian economy. Governments always try to uplift the farmers' status by enhancing their incomes. Pradhan Mantri Fasal Bima Yojana (PMFBY) is an initiative taken by Indian government for the farmers. It aims at supporting sustainable yields and minimizes the risks associated with agriculture sector in various ways:

1. To providing financial assistance to the farmers who anguishes from crop loss/damage due to unanticipated occurrences.
2. To stabilizing the farmers' income to ensure continuity in farming.
3. To motivates farmers to adopt new and modern farming practices.
4. To Insuring credit flow to the agriculture sector that will contribute to food security, diversification in crops and boost growth and increase competitiveness of agro sector Apart from protecting the farmers from production risk.

The present study evaluated the performance of PMFBY in Jind district of Haryana state during the time period from 2016-17 to 2020-21. The study is based on secondary data. The secondary data have been collected from the various published reports and official websites. In District Jind, only 1089 application were recorded and from these only 617 applications were accepted. Most of the selected farmers were awarded of relief payments under crop insurance scheme.

Keywords: Agriculture, PMFBY, Farmers, Insurance.

I. INTRODUCTION

Indian economy is based on agriculture because more than 40 per cent of population is employed in this sector. Marginal revenue of this more than 40 per cent of population is decreasing, So that earnings from agricultural sector not stabilized and its negative impact on farmer's overall development.

Mainly Indian agriculture is based on monsoon. Because of proper irrigation facilities are not developed. Thus there is uncertainty in production of crops. Many times, due to lack of good rainfall, agricultural production decreases or the crop gets damaged. Thus farmers have to suffer losses, as a result of which their income decreases. Due to decrease in income, their consumption also decreases. At the same time, the farmer is not able to use good production inputs for the next crops season, mainly as high yield seeds, latest agricultural machinery, suitable irrigation, etc. So that government decided to introduce insurance for financial security to farmers at 18th February 2016 government of India launches an ambitious scheme named PMFBY. Before this scheme various schemes were launched by government but that schemes were not up to the mark. Historical sequence of crop insurance schemes in India as:

1. Comprehensive Crop Insurance Scheme (CCIS): A crop insurance scheme was started in the country from Kharif 1985 to provide financial assistance to the farmers in case of crop loss due to natural calamities. All loanee farmers could participate voluntarily in this scheme and the states had the freedom to choose this scheme. This scheme was implemented till Kharif 1999.
2. National Agricultural Insurance Scheme (NAIS): NAIS was started in the country in Rabi 1999-2000 with the main objective of covering enlarge numbers of farmers and on concept of "more crops and more risks". The scheme was available to both types of farmers as loanee and non-loanee farmers - regardless of the size of their land holding. The scheme was implemented by 2 UTs and 25 states. During the time period from Rabi Season 1999-2000 to Rabi Season 2015-16 under NAIS, about 2691 lakh farmers and 3887 lakh hectare area were covered in which the Sum Assured was Rs. 4,61,238 crore. The number

of farmers who were benefited was about 779 lakh, to whom claims of about Rs 50,610 crore were paid in lieu of premium of Rs 14,009 crore. The scheme was demand based and could be claimed on unforeseen events like floods, droughts as well. This scheme was withdrawn after Rabi 2015-16.

3. Pilot Weather Based Crop Insurance Scheme (WBCIS): The goal of bringing more farmers under the Crop Insurance Scheme was started in 20 states since 2007 since 2007. The goal of this scheme is to provide security by providing insurance against poor weather such as less rain, high low temperature, bad humidity etc. Which have adverse effects on crop production? The advantage is that within the minimum time, the claims are settled. This scheme is based on actuarial rates of premium. In the experimental time period, the premium taken from the farmers was limited to the equal value of NAIS. This scheme was completely applied to NCIP as a component plan from April 2015. In the scheme, Rabi 2013-14 was provided to the subsidy farmers by 50% in the Premium at the Actuarial Premium. From its inception till Kharif 2015 to Rabi 2015-16, about 724 lakh farmers have been covered over an area of 937 lakh hectares insuring a sum amounting to Rs 124240 crore. The number of beneficiary farmers was approximately 491 lakh, which were paid claims of approximately Rs 9817 crore instead of 12,271 crore rupees.
4. Pilot Modified National Agricultural Insurance Scheme (MNAIS): This scheme was a modified version of NAIS which was implemented as a pilot project in 50 districts from Rabi 2010-11. From Rabi 2013-14, it was started as a full component scheme under the auspices of NCIP. The scheme was implementing on actuarial basis and to farmers has provided subsidy in premium up to 75% of the sum insured. From the inception of the scheme till Rabi 2015-16, a total amount of Rs 62,113 crore was insured by 276 lakh farmers in 303 lakh hectares. The number of farmers who were benefited was about 81 lakh, to whom claims of about Rs.4804 crore were paid in lieu of premium of Rs.5017 crore.

Haryana is a state of India and Haryana state economy is also an agro economy. In the state economy agro sector plays an important role. The Agriculture and Allied Sectors has always been an important contributor to the Gross State Domestic

Product (GSDP). However, as a consequence of rapid structural transition of the State's economy over the years, the contribution of the Agriculture and Allied Sectors at constant (2011-12) prices has been recorded as 18.9% of the GSVA during the year 2020-21 (Economic Survey of Haryana 2020-21). Agriculture of Haryana state is also dependent on monsoon, due to which farmers have to face many agro-related problems, such as decline in production of crops, loss/damage of crops and fall in income. To protect the farmers from these problems, the government brings crop insurance schemes from time to time.

1.2. SIGNIFICANCE OF THE STUDY

Indian agriculture is mainly monsoon based which is both its specialty and problems/weakness. Since independence till the present day, Indian agriculture has been suffering from various problems. In which the biggest problem has been the failure of crops due to natural events. Various crop insurance schemes were launched by the government to remove the farmers from these problems. One of which is PMFBY scheme. This study aims to evaluate the performance of the PMFBY in reference of district JIND of Haryana state. The results of this study can be helpful for planning reforms and can also be useful to policy makers at the state and national level regarding crop insurance.

II. OBJECTIVES

1. To highlight the features of PMFBY.
2. To analyze the performance of PMFBY in Jind district.

III. METHODOLOGY

This study primarily based on secondary data has been obtained from department of agriculture District Jind (Haryana). For analyze the performance of the scheme some indicators have been used such as Farmers Covered, Beneficiary ratio, Claim - premium ratio.

3.1 Study Design

The study is descriptive and analytical in the nature.

3.2 Study Area

This study focused on district JIND of Haryana state. In the district has 7 blocks takes as unit of study.

3.3 Sampling Method

Simple sampling method used in the study. All 7 blocks takes as sample unit for this study. Blocks

are ALEWA, JIND, JULANA, NARWANA, PILLUKHERA, SAFIDON, and UCHANA.

3.4 Data Collection Methods

Secondary Data collected from Department of Agriculture District Jind (Haryana).

3.5 Study period

The study based on the period 2016-17 to 2020-21 using half yearly (Crop Seasons as Rabi and Kharif) data.

3.6 To highlight the features of PMFBY.

Review of Literature is the main approach for this objective. Through this approach describe the features of PMFBY.

3.7 To analyze the performance of PMFBY in Jind district.

For this objective used three indicators as follow:

I. Total number of farmers covered under the scheme.

II. Beneficiary ratio

III. Claim – Premium ratio

JIND AT A GLANCE

Jind is a district of Haryana state and is situated in the very middle of Haryana with its administrative headquarter located in the Jind city. As per census 2011 Jind had population of 1,334,152 in which male and female were respectively 713,006 and 621,146. In the Jind district total number of tehsil is 7 namely Jind, Julana, Narwana, Safidon, Uchana, Alewa, Pilukhera these tehsil also blocks of the Jind district.



Source: www.jindcity.com

IV. REVIEW OF LITERATURE

Singh, A.K. & Abhishek Singh (2019) in his study entitled “Pradhan Mantri Fasal Bima Yojna (PMFBY): A Bunch of Benefits” has revealed that the number of farmers covered under this scheme are very low against number of farmers covered but the researcher reveals that the PMFBY is undoubtedly a better plan by far in the field of crop insurance than before. The researcher has also suggested that there is a need for strict monitoring and supervision of this scheme by the government so that every corner of the farming community can get the benefit of the said scheme in full sense.

Tiwari, R. (2020a) in his article titled “Two more states opt out of PM crop insurance scheme” discussed that, in 2016, the Prime Minister launched the Fasal Bima Yojana in the name of PMFBY, which provides insurance facility to the farmers from the pre-harvesting to the post-harvesting. Under this scheme, farmers have to pay premium at the rate of 1.5% for Rabi crops, 2% for Kharif crops and 5% for commercial crops. The balance amount of premium has to be paid equally

revealed the objectives and features of pmfby. Implemented status of pmfby also evaluated in the country. The researcher has pointed that the number of beneficiaries under this scheme is very low by the Central Government and the State Government.

Tiwari, R. (2020b) in his article entitled “Crop insurance scheme likely to give more flexibility to states and farmers” has revealed that, from the very beginning, this scheme was mandatory for those farmers who used to take loans from banks, from Kharif 2020, this scheme was made voluntary for the Loanee farmers, after which 30% farmers were out from this scheme while the premium for the farmers has increased by 2%.

Ghosh, S. (2019) in his paper titled “An analysis of Pradhan Mantri Fasal Bima Yojana (PMFBY): Expectations and Reality” is an attempt to evaluate the performance of the PMFBY and explained about the features of the scheme. Secondary data used in the present study. And the study shows that the scheme has not had much success so far as the coverage is far below the expected level. Study concludes that increase the

permeance of crop insurance, there is a need to encourage the participation of private sector companies in agricultural insurance. This can increase the coverage and viability of the insurance scheme. The high premium rate is the reason for not taking insurance policies.

V. RESULTS AND ANALYSIS

5.1 PMFBY: AT A GLANCE

After the simple demonstrations of the previous crop insurance schemes implemented in India, the Government of India launched PMFBY in the year 2016 to solve the crop related problems of the farmers and to stabilize and increase their income. The main objective of this scheme is to support sustainable production by providing financial help to farmers suffering crop losses/damages due to unlikely events. Another objective of this scheme is to motivate farmers to adopt new and modern methods of farming.

5.1.1 Eligibility for scheme

All farmers including sharecroppers and tenant farmers who grow scheduled crops in a scheduled area. All farmers taking loans from financial institutions will be compulsorily covered. For non-loanee that scheme is optional. It is implied in the scheme that under the scheme, efforts will be made to ensure maximum coverage to SC/ST/Women farmers.

5.1.2 Crops covered under the scheme:

The following crops covered under this scheme as

1. Food crops
2. Oilseeds
3. Annual commercial/Horticulture crops

5.1.3 Premium rates:

For Food and oilseeds crops is fixed @ 2% of the sum Insured or Actuarial rate, whichever

is less for Kharif season. For Rabi season 1.5% rate.

For Commercial or Horticultural crops, the premium rate to be paid by the farmer is fixed at 5 percent. Both the Central Government and the State Government will bear the difference between the premiums paid or to be paid by the farmers and the rate of insurance in the form of premium subsidy.

5.1.4 Sum Insured:

According to guidelines of the PMFBY scheme, the sum insured is equal to the Scale of Finance for the Crop (SOF) prescribed by the District Level Technical Committee. The sum insured for the individual farmer is now equal to the scale of finance per hectare multiplied by the area of the notified crop proposed to be insured by the farmer.

5.1.5 Assessment of claims:

If the 'Actual Yield' per hectare of the insured crops falls below the specified 'Threshold Yield', all insured farmers growing that crop are considered to have suffered a reduction in yield. Claims are calculated according to the following formula: **(Threshold Yield - Actual Yield / Threshold Yield × Sum Insured)**

5.2 Features of the PMFBY

5.2.1 Coverage of Farmers: The scheme provided coverage to Loanee farmers (Who have taken a loan) on compulsory basis, Non-Loanee farmers on voluntary basis, Sharecroppers, and Tenants farmers.

5.2.2 Coverage of Crops: Every state has notified crops (major crops) for Rabi and Kharif seasons. Premium rates vary from season to season.

5.2.3 Premium Rates:

S.No	Season	Crops	Maximum Insurance charges payable by farmer (% of Sum Insured)
1.	Kharif	Food & Oilseeds crops (all cereals, millets, & oilseeds, pulses)	2.0% of SI or Actuarial rate, whichever is less
2.	Kharif	Food & Oilseeds crops (all cereals, millets, & oilseeds, pulses)	1.5% of SI or Actuarial rate, whichever is less
3.	Kharif & Rabi	Annual Commercial / Annual Horticultural crops	5% of SI or Actuarial rate, whichever is less

5.2.4 Area-based Insurance Unit: That scheme based on an area approach. Therefore, all farmers in a specific region must pay the same premium and have the same claim payments. The field approach minimizes the moral hazard and risk of adverse selection.

5.2.5 Coverage of Risks: The aim of the scheme is to prevent sowing/planting risk, damage to standing crop, post-harvest damage and local calamities. The sum insured is equal to the cost of cultivation per hectare, multiplied by the area of the notified crop proposed by the farmers for insurance.

5.2.6 Innovative Technology Use: The use of technology in agriculture is recommended by the scheme. For example, using drones to reduce the use of crop cutting experiments (CCEs), which are traditionally used to estimate crop losses; and using mobile phones to reduce the delay in claim settlement by uploading crop harvesting data on app/online.

5.2.7 Cluster Approach for Insurance Companies: It encourages L1 bidding between insurance companies before it is allotted to a district to ensure fair competition. Besides a crop insurance portal for all online administration processes, a functional insurance office will be set up at the local level for grievance redressal.

5.3 COVERAGE AND THE PERFORMANCE OF THE SCHEME

PMFBY is a modified version of its earlier insurance schemes which provide financial

assistance to farmers in case of crop failure. The scheme was implemented with a target of covering 50% of the farmers of the country. But the scheme still lags behind this target.

5.3.1 Farmers Covered

During the first year of the scheme pmfby (2016-17) the total number of farmers covered under the scheme is 40371 for Rabi season and 48251 for Kharif season. 19.5% farmers increased in single season in 2016-17. Over 10000 thousand farmers increased in one year time period from rabi season 2016 to rabi season 2017. But approximately 3700 farmers exited the scheme just after the next crop season from Kharif 2016 to kharif 2017 in four blocks namely, Jind, Julana, Narwana, and Safidon. In 2018-19 crop year numbers of farmers increased to last crop year for both crop seasons and same with both crop seasons for crop year 2019-20. In crop year 2020-21 a huge difference between both crops season where about 12000 farmers out as compare to last same crop season of the scheme, other side the number of farmers increased about 23000 thousand from last crop season.

Narwana and Uchana were only two blocks in which the number of farmers covered is more than as compare to rest of blocks. Especially in Narwana block over the 10000 thousand farmers covered for both crop seasons in 2016-17 to 2020-21.

Table 1: Block Wise Farmers Insured under the Scheme PMFBY During 2016-17 to 2020-21 for both crops seasons Rabi and Kharif.

Block	Total Farmers Covered									
	2016-17		2017-18		2018-19		2019-20		2020-21	
	Rabi Season	Khari f Season	Rabi Season	Khari f Season	Rabi Season	Khari f Season	Rabi Season	Khari f Season	Rabi Season	Khari f Season
ALEWA	2479	2498	3855	3038	3,954	3,972	4,180	3697	2,639	4,909
JIND	6692	8709	7494	7511	9,061	9,070	8,744	8830	7,327	10,389
JULANA	4288	6091	6085	5488	5,352	6,462	6,459	6233	5,092	6,846
NARWAN A	10551	13861	14347	11744	15,347	16,159	15,535	15822	11,456	18,631
PILLUKH ERA	2785	3085	3946	3444	4,333	4,224	5,090	4604	3,316	5,062
SAFIDON	4219	5234	4773	3881	5,724	5,501	6,508	6062	4,626	5,447
UCHANN A	9357	8773	10022	9449	11,833	11,457	11,936	11417	10,258	16,323

TOTAL	40371	48251	50522	44555	55,604	56,845	58,452	56665	44,714	67,607
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Source: Department of Agriculture.

5.3.2 Beneficiary ratio

For any crop insurance scheme the Beneficiary ratio is an important indicator. It is a ratio between total numbers of farmers benefitted out of total number of farmers enrolled under a

specific scheme. Table 2 and 3 shows the Beneficiary ratio of pmfby across the blocks of Jind district. As can be seen, across all the blocks, the Beneficiary ratio has been very low. This shows that the lack of viability.

Table 2: Block wise Beneficiary ratio under the pmfby during 2016-17 to 2020-21 for crops Rabi season.

Block	2016	2017	2018	2019	2020
ALEWA	0.003	0.002	0	0.043	0
JIND	0.001	0.007	0.0001	0.098	0.002
JULANA	0.016	0.004	0	0.184	0.0025
NARWANA	0.001	0.0004	0.0006	0.005	0.0004
PILLUKHERA	0.0003	0.005	0.0001	0.104	0.0003
SAFIDON	0.0002	0.0008	0	0.106	0
UCHANNA	0.0009	0.0005	0	0.062	0.0001
TOTAL	0.003	0.002	0.0002	0.072	0.0008

Source: Department of Agriculture.

Table 3: Block wise Beneficiary ratio under the pmfby During 2016-17 to 2020-21 for crops Kharif season.

Kharif	2016	2017	2018	2019	2020
ALEWA	0	0.014	0.45	0.0002	0.014
JIND	0.0007	0.017	0.26	0	0.002
JULANA	0.004	0.20	0.30	0	0.0007
NARWANA	0.0007	0.002	0.009	0.00006	0.01
PILLUKHERA	0.015	0.09	0.11	0	0
SAFIDON	0.019	0.007	0.15	0	0
UCHANNA	0	0.025	0.21	0.00001	0.019
TOTAL	0.004	0.042	0.17	0.00005	0.009

Source: Department of Agriculture.

5.3.3 Claim - premium ratio

The Claim-premium ratio is also an important indicator for insurance scheme or program. It is a ratio of total claim paid and premium paid by farmers. Table 4 and 5 shows the

claim to premium ratio under the pmfby for both crop seasons during the time period 2016-17 to 2020-21 has been found very low for almost all blocks excepted Kharif season 2017-18 in which claim-premium ratio exceeded unity.

Table 4: Block wise Claim-premium ratio under the pmfby During 2016-17 to 2020-21 for crops Rabi season.

Rabi	2016-17	2017-18	2018-19	2019-20	2020-21
ALEWA	0.034	0.031	--	--	--
JIND	0.008	0.06	--	--	--
JULANA	0.231	0.1	--	--	--
NARWANA	0.015	0.006	--	--	--
PILLUKHERA	0.009	0.06	--	--	--
SAFIDON	0.001	0.01	--	--	--
UCHANNA	0.006	0.006	--	--	--
TOTAL	0.034	0.031	--	--	--

Source: Department of Agriculture.

Table 5: Block wise Claim-premium ratio under the pmfby during 2016-17 to 2020-21 for crops Kharif season.

Kharif	2016	2017	2018	2019	2020
ALEWA	--	3.83	--	0.03	0.26
JIND	0.008	1.93	--	1.26	0.33
JULANA	0.017	5.67	--	0.03	0.58
NARWANA	0.005	4.46	--	0.38	0.29
PILLUKHERA	1.025	1.69	--	0.07	0.01
SAFIDON	0.144	0.91	--	1.52	0.04
UCHANNA	--	4.94	--	0.09	0.26
TOTAL	0.03	3.68	--	0.39	0.29

Source: Department of Agriculture.

VI. CONCLUSION AND POLICY SUGGESTIONS

The scheme is failed to fulfill its objectives the farmers cover ratio is very low in the scheme and beneficiary ratio is negligible and claim premium ratio is very low so that scheme is actually not for farmers its benefited to insurance companies or agencies so that overall performance of this scheme in Jind district is poor. Government should pay attention to increase beneficiary ratio and claim ratio.

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