

## **An Analytical Study of Performance of Pardhan Mantri Fasal Bima Yojna (PMFBY) in Haryana State**

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### **Abstract:**

*India is an agrarian country where 44.05 percent (2017) of the population is dependent on agriculture and allied activities for their livelihood. Agriculture in India is exposed to a number of risk factors like drought, flood, hailstorm, untimely rain, pest and insect attack and price/market risks. These factors not only endanger the farmer's livelihood and income but undermine the variability of the agriculture sector. The Government has come up with various mechanisms to minimize the risk in agriculture sector like institutional finance on low interest rate, waived-off loan, minimum support price, soil health cards, agricultural equipments on subsidized rate, improved crops seeds, weather forecasting etc. But risk in agriculture is not declined up to desire level even after all these efforts and agrarian distress has been noticed in many parts of country. The insurance of crop could be considered as hedge to protect farmers from the adverse effect of crop failure. Government of India launched Pardhan Mantri Fasal Bima Yojna on Feb. 18, 2016 with aim to provide a comprehensive insurance cover against failure of crops thus helping in stabilizing the income of farmers. The present study aims to evaluate the performance of scheme in Haryana in terms of number of farmers insured under the scheme, number of farmers' benefitted, gross amount of premium and total amount paid as claims for crop loss. The results of study found a meager increase of .25 percent in the number of farmers covered under the scheme in 2017-18 as compare to 2016-17. A significant increase of 49 percent and 203 percent in the number of farmers benefitted and claims paid has also been found in the study.*

**Key Words:** Crop Insurance Schemes, Pardhan Mantri Fasal Bima Yojna, Performance of Scheme, Haryana State

### **Introduction:**

Agriculture plays a vital role in India's economy. 44.05 percent of the country's population is engaged in agriculture and allied activities for their survival and it contributes 17.2 percent to the country's Gross Value Added at current price for the year 2017-18 (Central Statistics Office, Ministry of Statistics and Programme Implementation, GOI). The total

number of operational land holdings in the country increased from 138 million in 2010-11 to 146 million in 2015-16 (Agricultural Census, 2015-16). Agriculture in India is highly susceptible to natural climate risks which not only endanger the farmer's livelihood and income but undermine the variability of the agriculture sector also. Keeping in view the risks involved in agriculture and to insure the farmers against these, Ministry of Agriculture introduced national-wide Comprehensive Crop Insurance Scheme in 1985. To enlarge the coverage in terms of farmers, crops and risks, National Agriculture Insurance Scheme was implemented with effect from 1999. Weather Based Crop Insurance Scheme (2007-08), Coconut Palm Insurance Scheme (2009-10) and Modified National Agriculture Insurance Scheme (2010-11) were introduced on pilot basis. To make the crop insurance scheme more farmers' friendly, a re-structured crop insurance scheme namely, National Crop Insurance Programme was implemented from Rabi season (2013-14) throughout the country. The erstwhile pilot insurance schemes likes Weather Based Insurance scheme, Coconut Palm Insurance Scheme and Modified National Agriculture Insurance Scheme were merged in National Crop Insurance Programme. The previous crop insurance schemes have further been reviewed and a new scheme namely Pradhan Mantri Fasal Bima Yojna (PMFBY) has been approved for implementation from Kharif 2016 to minimize the risk in agriculture sector. The Crop Insurance Schemes remain optional for State Governments and they also have the option to notify the crops and areas according to their priorities. The Haryana State Government also implemented Pradhan Mantri Fasal Bima Yojna with effect from Kharif 2016 for attaining the objectives (a) to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crops as a result of natural calamities, pests and diseases etc. (b) to stabilize the income of farmers to ensure their continuance in farming ( c) to encourage farmers to adopt innovative and modern agricultural practices and (d) to ensure flow of credit to the agriculture sector

#### **Features of Scheme:**

Being restructured crop insurance scheme, it incorporate the best features of all previous schemes and at the same time all previous weakness have been removed. The main highlights of the scheme include:

1 The scheme covers loanee farmers, non-loanee farmers, tenant farmers and sharecroppers growing the notified crops in the insurance unit.

2 Under the scheme, paddy, bajra, maize and cotton crops are being covered during Kharif season, and wheat, gram, barley and mustard crops covered during Rabi season.

3 Share of farmer in actuarial premium has been rationalized for crops/ areas throughout the country and reduced to lower level subject to a maximum ceiling of 2% of sum insured for Kharif crops, 1.5% for Rabi crops and 5% for Kharif and Rabi annual commercial/ horticultural crops.

4 It aims to prevent sowing/plantation risk, loss to standing crops, post-harvest losses and localized calamities. The sum insured is equal to cost of cultivation per hectare (2.47 acres) multiplied by the area of notified crops as proposed by the farmers for the purpose of insurance.

5 This scheme operates on homogenous area approach. The insurance unit will be a village (revenue estate). Thus, all farmers in a particular area must pay the same premium and have the same claims payment.

6 The provision of capping the premium rate has now been removed and farmers will get claim against full sum insured without any reduction.

7 It has three levels of indemnity 70%, 80% and 90% corresponding to high, moderate and low risk for all notified crops/areas by respective state governments.

8 Provision of selection of implementing agencies (Insurance companies) through a transparent bidding process has been made on the basis of mixed-risk-area approach (i.e. cluster).

9 It recommends the use of innovative technology (i.e. Drone and remote sensing, Smartphone) in agriculture for the purpose of estimating crop losses and to reduce delay in claim settlements.

### **Review of Literature:**

Indian farmers are vulnerable to agricultural risks and thus need an insurance system. India's first crop insurance scheme was based on "individual farm approach" which was later dissolved for being unsustainable due to moral hazards and adverse selection. The next insurance scheme was then based on "homogenous area approach". Under this scheme, each agro-climatically similar area was treated as a unit and the individual farmers in that area were required to pay same premium for the same benefits irrespective of the yield loss incurred by individual farmers. The Agriculture Ministry circulated the scheme among various States but it was not accepted by States. Long after the failure of first

initiative, in 1972-73 General Insurance Corporation of India introduced crop insurance scheme on H-4 cotton and latter include groundnut, wheat, potato and gram. This scheme was implemented in Maharashtra, Tamilnadu, Andhra Pradesh, Gujarat, Karnataka and West Bengal and continued up to 1978-79. This scheme was discontinued on account of non-response from farmers and its financial non-viability (Raju and Chand, 2008). Thereafter, based on homogenous area approach General Insurance Corporation of India launched Pilot Crop Insurance Scheme in 1979. This scheme was confined to loanee farmers of institutional sources on voluntary basis and covered cotton, oilseeds, potato, cereals, millets and chickpea crops. The maximum sum insured was equal to the full extent of crop loan. This scheme was implemented in 12 states and continued till 1984-85. The Comprehensive Crop Insurance Scheme, launched in 1985, was the first nation-wide scheme. This scheme was also based on homogenous area approach and linked to short term credit. It covered farmers availing crop loans from the financial institutions for growing food crops and oilseeds. This scheme was adopted by 15 States and 2 Union Territories and continued till Kharif 1999. The scheme had to be discontinued on account of confined to loanee farmers, coverage of few crops, time lag for indemnity payment, financial non-viable (Jain, 2004). The National Agricultural Insurance Scheme, with increase coverage of farmers, crops and risks was introduced from Rabi season 1999-2000. The aim of the scheme was to protect the farmers against the crop losses on account of natural calamities. It was available to all the farmers (loanee and non-loanee) irrespective of their size of land holdings and covered all food crops, oilseeds and annual commercial/horticultural crops. The scheme was continued till Kharif 2013; however, some States are allowed to implement it during Rabi 2013-14 also. Agricultural Insurance Company of India took over the implementation of this scheme and had been implemented by 25 States and 2 Union Territories. The main issues against this scheme were related to its coverage, premium rate and delay payments of claims (Raju and Chand, 2010). The committee of experts appointed by the Government for its evaluation recommended its discontinuation and launching of another scheme with suitable modification and improvements (Committee's report 2013). To make the crop insurance scheme more farmers' friendly, a re-structured crop insurance scheme namely, National Crop Insurance Programme was implemented from Rabi season (2013-14) throughout the country. The erstwhile pilot insurance schemes likes Weather Based Insurance scheme, Coconut Palm Insurance

Scheme and Modified National Agriculture Insurance Scheme were merged in National Crop Insurance Programme. Under the scheme, two indemnity levels of 80 percent and 90 percent have been provided. Committee headed by P.K. Mishra (2014), former secretary, Department of Agriculture and Cooperation examined the various issues related to crop insurance like discrepancy in area insured, weather data, crop loan practices, crop insurance premium, settlement of claims, operational roles of banks and agricultural insurance companies and awareness level of farmers regarding features of schemes and recommended that premium rates to be revised, to make land record data be available to financial institutions web portal should be developed by every State, banks and insurance companies should play pro-active role in effective implementation of insurance schemes, RBI and NABARD should monitor the compliance of their circulars regarding compulsory crop insurance for loanee farmers, State Governments should ensure the use of GPRS-enabled technology and camera fitted mobile phones etc. while conducting crop cutting experiments. Pradhan Mantri Fasal Bima Yojna (PMFBY) is a new crop insurance scheme and approved for implementation from Kharif 2016 season. It aims to provide a comprehensive insurance cover against failure of crops and ensure income stability for the farmers and encourage them for adoption of innovative agricultural practices. Das (2017) reported that 1.47 lakh farmers availed the crop insurance under Pradhan Mantri Fasal Bima Yojana in the 2016 kharif season in Haryana State. Against the gross premium payment of Rs 255 crore, reported claims under scheme was Rs 234 crore. To ensure faster settlement of claims for farmers in case of crops loss and to bring overall efficiency in the implementation of the scheme, the Haryana government has decided to set up its own insurance firm. Ghangus (2018) studied the PMFBY in Hisar district of Haryana and reported that 93.33 percent farmers adopted the compulsory proposal meant for loanee farmers while 6.67 percent adopted it voluntarily. The researcher observed that to get wider voluntarily adoption by farmers, active participation of stakeholders along with service providers is very much essential.

Indian agriculture is varied, diversified and prone to a variety of risks. Crop Insurance, which aims at addressing yield risk, is subject to structural, design and financial problems. The present study entitled “An Analytical Study of Performance of Pradhan Mantri Fasal Bima Yojna (PMFBY) in Haryana State” is a further attempt to assess the performance of

scheme in terms of number of farmers insured under the scheme, amount of premium collected from farmers and number of farmers got compensations of crop loss.

**Objective of the Study:** The main objective of the study is to evaluate the performance of scheme. In this broader framework, the following are the specific objectives of the study.

- \* To describe the procedural steps followed in the implementation of scheme.
- \* To evaluate the performance of scheme in State.
- \* To identify the major constraints in implementation of the scheme and suggest effective measures accordingly.

**Research Methodology:**

The present study aims to make analytical evaluation of performance under Pardhan Mantri Fasal Bima Yojna. For the purpose of evaluation, secondary data is collected from the publications of agriculture department, and economic surveys of State Government. The data related to 5 crop seasons (Kharif 2016 to Kharif 2018) used for the purpose of analysis. The simple statistical techniques like average and percentage are used to analysis the data.

**Procedural Steps for Implementation of Scheme:**

The implementation of scheme is through multiagency framework of Ministry of Agriculture, Government of India, States Governments in coordination of commercial banks, primary agricultural cooperative societies, regional rural banks, selective private insurance companies and regulatory bodied i.e. panchayati raj institutions. The steps followed in the implementation of crop insurance scheme are:

**1** Central Government announces the crop insurance scheme for farmers

**2** State Government notifies the area, crops, indemnity level, sum insured, premium rates and seasonality discipline for the implementation of scheme in State

**3** State Government designates nodal authority (SLCCCI) in the State to look after the implementation of scheme

**4** State nodal authority provides the administrative set up at district level to facilitate implementation of scheme



**5** Farmers approach nearest office/banks responsible for implementation and will submit necessary documents for crop insurance

**6** For loanee farmers it is compulsory and bank sanctioned additional amount for insurance. A functional office of insurance company at tehsil level distributes claims to farmers in case of crop loss.

For more effective implementation, a cluster approach adopted under which a group of districts with variable risk profile allotted to an insurance company through competitive bidding for up to three years. Accordingly, Haryana Government formed three clusters, preferably seven districts in one cluster, throughout in state. In Cluster-I, there are districts of Panchkula, Kurukshetra, Faridabad, Kaithal, Bhiwani, Sirsa and Rewari. Cluster-II includes districts of Ambala, Karnal, Gurgaon, Jind, Sonipat, Hisar and Mahendergarh. Whereas; districts of Yamunanagar, Panipat, Palwal, Rohtak, Mewat, Fatehabad and Jhajjar are included in Cluster III.

**Table 1: Clusters for Implementation of PMFBY**

<b>Cluster-I</b>	<b>Cluster-II</b>	<b>Cluster-III</b>
Panchkula	Ambala	Yamunanagar
Kurukshetra	Karnal	Panipat
Faridabad	Gurgaon	Palwal
Kaithal	Jind	Rohtak
Bhiwani	Sonipat	Mewat
Sirsa	Hisar	Fatehabad
Rewari	Mahendergarh	Jhajjar

Under cluster 1, Reliance General Insurance Company Ltd., in cluster II Bajaj Allianz General Insurance Company and in cluster III, ICICI Lombard General Insurance Company Limited has given the responsibility for implementation of scheme.

#### **Performance of Scheme:**

The key indicators to evaluate the performance of schemes taken up are: number of farmers covered under the scheme, total amount of premium under schemes, number of

farmers benefitted and total amount of claims paid to farmers during Kharif 2016 to Kharif 2018 (5crop seasons). A close inspection of the table 2 depicts that during kharif

**Table 2: The Cropping Season-wise Progress of PMFBY****(Rs. in Lakh)**

Seasons	Number of Farmers Covered	Collected Premium			Total Premium	Number of Farmers Benefitted	Total Claims
		Farmer Share	State Share	Centre Share			
Kharif 2016	738795	12735.62	8332.42	4616.37	25684.41	150881	23423.05
Rabi 2016-17	597298	6994.67	1892.81	1892.81	10780.29	62606	5702.64
Kharif 2017	641562	12674.31	11489.05	6201.65	30365.01	240144	79704.32
Rabi 2017-18	697977	8224.34	3384.38	3384.38	14993.10	77215	8530.02
Kharif 2018	722953	13908.27	26084.97	18099.62	58092.86	322574	79729.23
<b>Total</b>	<b>3398585</b>	<b>54537.21</b>	<b>51183.63</b>	<b>34194.83</b>	<b>139915.67</b>	<b>853420</b>	<b>197089.26</b>

Source: Department of Agriculture, Economic Survey of Haryana 2017-18

2016, 738795 farmers covered under the scheme for a premium of Rs 25684.41 lakhs against claim of Rs. 23423.05 lakhs. Whereas, 597298 farmers covered for a premium of Rs 10780.29 lakhs against claim of Rs 5702.64 lakhs for Rabi crop during 2016-17. As far as Kharif season 2017 is concerned, 641562 farmers covered and 79704.32 lakhs were paid as claim against a premium of Rs. 30365.01 lakh. During rabi crop of 2017-18, 8530.02 lakhs paid as claim against total premium of 14993.10 and 697977 farmers covered. In Kharif 2018, 722953 farmers covered for a premium of Rs 58092.86 and 79729.23 lakhs paid claim for crop loss to 322574 farmers. In comparison of kharif crops of 2017 to 2016, a significant increase of 240 percent found in amount of claim paid to farmers for crop loss. Similarly, a significant increase of 49.58 percent has found in amount of claim in rabi



2017-2018 as compare to 2017-18. Whereas, no significant increased has found in kharif 2018 in comparison of kharif 2017.

**Table 3 Percentage Change in Performance Indicators of PMFBY**

<b>Performance indicators</b>	<b>2016-17 (Kharif and Rabi crops)</b>	<b>2017-18 (Kharif and Rabi crops)</b>	<b>Percentage Change</b>
Farmers Insured	1336093	1339539	.0025
Farmers Benefited	213487	317359	.49
Total Premium (lakh)	36464.70	45358.11	.24
Total Claim paid (lakh)	29125.69	88234.34	2.03

Source: Author's compilation using data from Ministry of Agriculture and Economic surveys of Haryana

Table 3 shows the percentage change of certain indicators to ascertain and compare the impact of scheme during 2016-17 and 2017-18. There has been increase of .25 percent in the number of farmers insured under the scheme. However, there has been a significant increase in the number of farmers benefited and claims paid: 49 percent and 203 percent respectively. A significant increase of 24 percent in gross premium collected under the scheme has also been noticed.

### **Constraints and Suggestions**

1 The scheme was not properly conveyed to farmers by the concerned officials. A meager increase in number of farmers in 2017-18 as compare to 2106-17 seems that only loanee farmers have covered under compulsory proposal of scheme and farmers on voluntary basis have not shown any interest in the scheme. A comprehensive awareness programme should be launched before the commencement of the crop season to enable the farmers to plan and prepare for coverage of the crops in the scheme

2 The bank officials debit the account of loanee farmers with insurance premium without verify the type of crops shown in area as mortgaged with bank for purpose of agriculture loan. So, the bank officials must convey the farmers to give details about areas covered with notified crops in their proposal forms.

3 The bank official failed to perform their duty to help the farmers for applying and getting the claims in case of crop loss. Skipping the responsibility to personnel of insurance

companies creates distrust in scheme among farmers. Therefore, the banks must provide help desk to farmers under the scheme.

4 The process of applying for claim under the scheme is not hassle-free. Operation of the scheme is full of hassles and requires a number of documents and this becomes a hurdle for participation in the scheme by the farmers. The State Governments should ensure the implementation of scheme with minimum documentation.

5 The farmers are not getting the claim equal to sum insured. To pay claim of full sum insured, assessment of threshold yield of crop should be based on actual crop cutting experiments.

6 The scheme is compulsory for loanee farmers and the banks in which farmers have kisan credit card account (loan account) make compulsory deductions of premium under the scheme. The State Government should make the scheme completely voluntary for the convenience of the farmers.

### **Conclusion**

The Government of India has made various efforts to address farmers' grievances. Agricultural insurance in India is still in an investigational and development phase. The improved product and active involvement of private sector insurance markets are expected to lead to significant benefits for farmers, including faster claims settlement, a more equitable allocation of subsidies and lower basis risk. Using innovative technology such as GPRS-enabled equipments and camera fitted mobile phones for uploading data related to loss may be fruitful in implementation of crop insurance scheme more effectively. A comprehensive programme of capacity building – in line with the needs of stake holders such as State Government functionaries, insurers and Central Government agencies associated with crop insurance schemes should be organized. Programmes of awareness regarding insurance literacy among farmers should be prepared by Insurance Companies and Banks, in collaboration with the respective State Governments. Crop insurance will certainly help in protecting the farmers against the different kind of risks involved in farming and will also definitely improve the conditions of agriculture in India.

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