

# ASSESSMENT OF PRADHAN MANTRI FASAL BIMA YOJANA IN SELECTED STATES

## Abstract

While various crop insurance schemes have been implemented with limited success for the past few decades, the Prime Minister Fasal Bima Yojana (PMFBY) launched in April 2016 promises better prospects for enhancing farmers' welfare due to its well thought out design. After four years of implementation, it has met with moderate success. Some improvements have of course been suggested by experts to make the scheme more fruitful. If implemented in the true spirit, this scheme can be a game changer for the agricultural sector. This chapter does a comparative analysis of PMFBY and Weather Based Crop Insurance Scheme (WBCIS). The challenges in the implementation of the scheme have been highlighted. Finally, the four largest states in terms of number of farmers/operational holdings have been selected for assessing the performance of PMFBY over four years between 2016-17 and 2019-20 along with recommendations for improvements in implementation.

**Keywords:** Farmers, Area, Sum Insured, Premium, Claims.

## Authors

### Dr. Bhuma Raman

Lead-Organizational Development

INHAF

Visiting Faculty, Pune Business School

coolbhuma.raman@gmail.com

### Dr. Shraddha Purandare

Professor

Dr. D Y Patil B-School

Pune.

## **I. INTRODUCTION**

The Indian economy is faced with an unprecedented agrarian crisis. Farmer suicides continue unabated in the thousands even as the central and state governments have been announcing farm loan waivers running into crores in an attempt to provide relief to the distressed sector. But as the continuing farm suicides are proving, these debt waiver schemes provide temporary relief at best and are a moral hazard at worst. Not only do these schemes create a huge dent on the treasury, they are a totally unproductive utilization of resources and do not address the real issues facing the agricultural sector. Though farmers are owners of land which is a very powerful asset, they suffer penury to an extent that suicide is their last resort. This is highly paradoxical. This paradox exists because agriculture is an extremely risky occupation. Even as the government at central and state levels announce debt waiver schemes for mitigating the burden of the farmers, there is no improvement in the scene on ground. Since the failure of these schemes to solve the farmers' distress has now been well established, it becomes necessary to look at other options for increasing farmers' incomes and welfare and shielding them from the tremendous risks they undertake.

## **II. NEED FOR CROP INSURANCE**

The farmer faces risks on several fronts. To begin with he may not have access to best quality inputs like seeds, fertilizers, pesticides, etc. Indian agriculture is largely rain fed and the majority of farmers stand exposed to the vagaries of weather. Even where irrigation is available, farmers face post-harvest risk in the form of wastage due to lack of appropriate storage and transportation facilities. And finally, whatever produce the farmer is able to sell may not fetch him a fair and remunerative price. Agricultural marketing is so fragmented and distorted as on date that farmers face severe price volatility and can never be assured of adequate returns even if there has been a bumper crop. All the above risks get further magnified when we factor in the disastrous consequences of climate change and faulty cropping patterns which have been followed for the past few decades. Improvements in agricultural marketing, easy availability of credit, adopting suitable cropping patterns, ensuring equitable distribution of irrigation facilities, adoption of latest technologies, inputs etc. are various aspects which need to be addressed for enhancing farmers' welfare. But the most important issue is the mitigation of risks faced by farmers. In this regard, crop insurance is the only option which seems to be viable as against debt waivers, given the perennial nature of the problem.

## **III. PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY)**

The PMFBY is one among the several initiatives of the current government aimed at improving farmers' welfare. This scheme aims at providing insurance cover for farmers for various other risks like life, accident, house, tractor, pumpset etc. The scheme will be implemented through Agriculture Insurance Company of India (AIC) and other empanelled private general insurance companies. The Implementation Agency (IA) will be selected by the state government based on bidding on premium rates. An "Area Approach" basis will be adopted for the implementation of the scheme. For major crops, the unit of insurance will be village while for other crops a unit of size above the level of village will be assigned as the unit of insurance. The losses for the insurance companies are mitigated due to the existence of reinsurance.

#### IV. IMPLEMENTATION

As on 01/12/2021, the statistics for the whole country for PMFBY and WBCIS(Kharif 2021) was accessed from the PMFBY website are given in Table 1. It can be seen that while barely 2 lakh farmers are registered under WBCIS, nearly 1.5 crore farmers are registered under PMFBY scheme. The number of applications received under WBCIS is barely 2.75 lakhs, while nearly 5 crore applications have been received under PMFBY scheme. Nearly 75% of the applicants under the PMFBY are loanee applicants (3.72 crores), while around 55% of the applicants under WBCIS are loanee applicants. The sum insured under PMFBY is touching a whopping 1 lakh crore rupees, while that under WBCIS it is not even Rs. 2,000 crores (1,721 crores). The area insured under PMFBY scheme is nearly 2.5 crore hectares, while that under WBCIS is barely touching 2 lakh hectares. The reach of PMFBY scheme is also massive in comparison to WBCIS. More than thirty thousand bank branches are providing PMFBY as compared to a mere 1,666 branches for WBCIS. Again, more than fifty thousand CSC and VLE and involved in providing PMFBY while hardly 5,000 of them are involved in WBCIS. The total premium paid under PMFBY comes to around Rs. 17,000 crores while that under WBCIS is just a little above Rs. 300 crores. It can also be seen that the Central and State Governments together share nearly 88% (14,808.12/16,860.47) of the premium in case of PMFBY while in the case of WBCIS it is around 75% only (244.87/328.56).

**Table 1: Nation-Wide Statistics on PMFBY and WBCIS (Kharif 2021)**

Particulars	PMFBY	WBCIS
Total Farmers	1,49,95,512	2,07,097
Total Application	4,95,55,120	2,68,981
Loanee Applications	3,72,79,622	1,48,883
Non Loanee Applications	1,22,75,498	1,20,098
Sum Insured	Rs.94,653.75 Cr	Rs. 1721.70 Cr
Area Insured	2.39 Cr. Hectares	1,78,272 Hectares
Total Insurance Companies	10	7
Total Bank Branches	32,721	1,666
No. of CSC and VLE*	56,728	5,181
Total Premium	Rs.16,860.47 Cr.	Rs. 328.56 Cr
Central Government	Rs.7,251.08 Cr.	Rs. 110.57 Cr
State Governments	Rs.7,557.04 Cr.	Rs. 134.31 Cr
Farmers	Rs.2052.34 Cr.	Rs. 83.68 Cr

Source: PMFBY website

\*CSC and VLE are Common Service Centres and Village Level Entrepreneurs respectively.

#### V. CHALLENGES

An independent assessment of the PMFMY (PMFBY) was conducted by the Centre for Science and Environment and the report was released in July 2017. According to the study, the coverage of agricultural insurance at the all-India level has increased from 3.09 crores in kharif 2015 to a little over 4 crores in kharif 2016 which is a significant rise. Likewise, the sum insured per hectare is also closer to the cost of production (from Rs 20,500

in 2015 to Rs. 34,370 in 2016) which means that in case of losses, farmers should get higher compensation than before. However, it also came across several gaps in the implementation of the scheme. These have been highlighted below:

- Difficulties in assessment of crop loss continues to be a dominant problem due to small sample sizes in villages which are not able to project the scale and diversity of crop losses.
- Often the claim payment received by the farmer is inadequate or delayed. Also, in case of localised calamities, farmers did not receive any claim payment.
- This scheme has witnessed an increase in the actuarial premium, instead of coming down with the increasing scale of coverage. A major reason for this is high price charged by various insurance companies to increase their profits. This led to a massive profit for the insurance companies, to the tune of almost Rs. 10,000 crores.
- Non-loanee farmers (sharecropper and tenant farmers) continue to remain out of the purview of this scheme; they constitute less than 5 percent of the total number of farmers covered under this scheme.
- Implementation of the scheme remains poor due to lack of awareness on ground and lack of adequate infrastructure. Insurance companies on their part are not ready to go the extra mile to ensure success of the scheme.
- One of the biggest failures of this scheme has been that it is not beneficial to farmers in vulnerable regions like Marathwada and Bundelkhand. In these places, the low indemnity levels, low threshold yields, low sum insured and default on loans lead to a situation where the farmers may not get any claim payment even if more than half their crops are damaged.

## VI. ASSESSMENT OF THE PERFORMANCE OF PMFBY IN SELECTED STATES

For assessing the performance of the PMFBY, a thorough scrutiny of all the reports and data of the PMFBY website was undertaken. As on 01/12/2021, the statistics for the whole country for PMFBY and WBCIS (Kharif 2021) was accessed from the PMFBY website. The four largest states in terms of number of farmers/operational holdings were selected – Uttar Pradesh, Maharashtra, Madhya Pradesh and Rajasthan with 2 crore, 1.5 crore, 1 crore and 75 lakh farmers respectively. Various aspects pertaining to the physical and financial coverage of the scheme in the four states were obtained from reports in the PMFBY website for the years 2016-17 to 2019-20. The data for the period after 2019-20 has been made available on the dashboard more recently. However, the data available in the reports used for analysis in this chapter have different parameters which are not available in the reports for the recent years; for example, Gross number of farmers covered, Percentage of farmers covered, Number of farmers insured, and Number of farmers benefitted for the full year have not been given as one consolidated figure. The data has been given only regarding number of farmers covered and has been split into Kharif and Rabi seasons, which makes analysis difficult. Also, data pertaining to Reported Claims and Paid Claims are not available for the recent years in the dashboard. Hence, it was decided to do a comparison of the four states for the four years from the reports in the website and not from the data displayed on the dashboard.

The following table shows the data for Maharashtra, Madhya Pradesh, Uttar Pradesh, Rajasthan, and the country profile for **2021 Kharif season (PMFBY scheme)** with reference to category wise and gender wise farmer application count:

**Table 2: Gender Wise and Category Wise Farmer Application Count (2021 Kharif PMFBY)**

State	Gender (%)			Category (%)			
	Male	Female	Other	SC	ST	OBC	GEN
<b>Maharashtra</b>	80.97	19.01	0.02	2.14	5.09	35.81	56.96
<b>Madhya Pradesh</b>	88.25	11.62	0.13	8.62	5.04	59.81	26.53
<b>Uttar Pradesh</b>	90.97	8.98	0.05	0.65	5.95	35.89	57.51
<b>Rajasthan</b>	87.65	12.17	0.18	8.94	7.93	62.43	20.7
<b>Country Profile</b>	86	14	0	9	7	54	30

Source: PMFBY website

The gender wise distribution of farmer applicants is more or less similar across all the three states and in line with the average distribution of the country. In Maharashtra the land distribution is a little higher (19%) in favour of the female population more than in the rest of the country (14%) and significantly higher than in the other three states (11.62%, 8.98% and 12.17% respectively). With respect to land holdings across categories, it can be seen that the share of OBCs and GEN category of farmers in Maharashtra (35.81% and 56.96%) and in Uttar Pradesh (35.89% and 57.51%) is the reverse that of the country profile where it is 54% and 30% respectively. The country profile is reflected in the land holdings in Madhya Pradesh and Rajasthan where 59.81% and 62.43% of farmer applicants belong to OBC category and 26.53% and 20.7% belong to the GEN category respectively. Again, with respect to SC category too, the share of farmer applicants in Madhya Pradesh (8.62%) and Rajasthan (8.94%) reflects the country profile of 9%. The share of SC farmer applicants is low in Maharashtra (2.14%) and very low in Uttar Pradesh (0.65%) respectively. Finally, the distribution among ST category of farmer applicants is uniform at 5.09%, 5.04% and 5.95% in Maharashtra, Madhya Pradesh and Uttar Pradesh respectively, while a little higher figure in Rajasthan (7.93%) is closer to the country profile of 7%. A comparison of the data for Maharashtra, Madhya Pradesh, Uttar Pradesh, Rajasthan and the country profile for **2021 Kharif season (PMFBY scheme)** with respect to size of land holdings and type of application is shown in the following table:

**Table 3: Distribution across Holding Size and Type of Application (2021 Kharif PMFBY)**

State	Size Of Holding (%)			Application	
	Marginal	Small	Others	Loanee	Non-Loanee
<b>Maharashtra</b>	10.14	83.12	6.74	10,44,450	73,59,722
<b>Madhya Pradesh</b>	14.53	52.33	33.14	47,14,895	27,672
<b>Uttar Pradesh</b>	32.25	59.19	8.56	20,09,281	1,49,307
<b>Rajasthan</b>	20.31	49.82	29.87	1,80,05,215	9,87,259
<b>Country Profile</b>	18	62	20	3,72,79,622	1,22,75,498

Source: PMFBY website

It can be seen from Table 3 that in Maharashtra the majority of farmer applicants, 83%, have small land holdings (between 2 and 5 acres). This is very much higher than the country profile of 62% while the other states have a lower proportion of small farmers (52% in Madhya Pradesh, 59% in Uttar Pradesh and almost 50% in Rajasthan). In the case of marginal land holdings (less than 2 acres), only 10% of the farmer applicants in Maharashtra belong to this category, while in Madhya Pradesh it is around 15%. Both these figures are lower than the country profile of 18%. However, in Rajasthan and Uttar Pradesh, the share of marginal farmer applicants is much higher at 20% and 32% respectively. The distribution of land holdings in ‘Others’ category is again low in Maharashtra at around 7% and in Uttar Pradesh at around 9%, which is lower than the country profile of 20%. In both Madhya Pradesh and Rajasthan this figure is higher at 33.14% and around 30% respectively.

With respect to loanee and non-loanee applicants, it can be seen that it is only in Maharashtra that the number of non-loanee applicants (73,59,722) is way higher than loanee applicants (10,44,450). This is the reverse of the statistics for the country profile as well as of the other states. Thus, in Madhya Pradesh (47,14,895 as against 27,672), Uttar Pradesh (20,09,281 as against 1,49,307) and Rajasthan (1,80,05,215 as against 9,87,259), the number of loanee applicants were higher as against non-loanee applicants respectively. This was in tandem with the country profile where the number of loanee applicants stands at 3,72,79,622 as against non-loanee applicants at 1,22,75,498.

**1. Maharashtra:** With over 1.5 crore farmers, Maharashtra is the second largest state in terms of number of farmers/operational holdings. It can be seen from Table 4 that the gross number as well as percentage of farmers covered by PMFBY have increased between 2016-17 and 2019-20 by over 24 lakhs and 16 percentage points respectively. Since some farmers insured in both Kharif and Rabi seasons, the number of farmers insured is sometimes slightly greater than the gross number of farmers covered. Even though there was a fall in 2017-18, the scheme picked up popularity among the farmers in the next two years and the number of farmers benefitting from the scheme almost tripled from around 30 lakhs in 2016-17 to nearly 90 lakhs in 2019-20 and as a result an

additional 8 lakh ha of land was insured between 2016-17 (72 lakh ha) and 2019-20 (around 80 lakh ha).

**Table 4: Physical Coverage of PMFBY in Maharashtra (Number of farmers/Operational holdings in state – 1,52,85,000)**

Year	Gross Number of Farmers Covered (Nos.)	% of Farmers Covered	Number of Farmers Insured (number in Lakhs)	No. of Farmers benefitted (number in Lakhs)	Area Insured (in Lakh Ha.)
2016-17	1,20,09,613	78.60%	120.09	29.04	72.61
2017-18	1,02,15,277	66.80%	102.80	53.89	57.87
2018-19	1,47,29,254	96.40%	147.65	77.08	88.23
2019-20	1,44,04,150	94.24%	145.64	87.87	79.22

Source: PMFBY website

The financial coverage of the scheme in Maharashtra is seen in Table 5. There has been a 25% increase in the sum insured from around 24,000 crores to over Rs. 30,000 crores between 2016-17 and 2019-20. As a result, reported claims have increased three times from over Rs. 2000 crores to more than Rs. 6,500 crores. Also, as a percentage of the sum insured, the reported claims have increased from around 10 percent to over 20 percent. This shows that the scheme has been able to inspire confidence among the farmers. The proof of such confidence is seen from the fact that Paid Claims almost equal Reported Claims in all the years. Thus, the scheme has been hugely successful in Maharashtra. It should be noted that the Farmers' share in premium as a percentage of Gross Premium is around 13 to 14 percent. The remaining amount i.e., almost 85 percent of the premium is borne by the government.

**Table 5: Financial Coverage of PMFBY in Maharashtra**

Year	Sum Insured (Rs. In crores)	Farmers' Share in Premium (Rs. In crores)	Gross Premium (Rs. In crores)	Reported Claims (Rs. In crores)	Paid Claims (Rs. In crores)
2016-17	24,018.08	682.59	4,596.45	2,316.78	2,316.78
2017-18	19,490.91	512.62	4,288.36	3,289.76	3,286.86
2018-19	30,186.62	790.36	5,746.49	5,952.75	5,933.21
2019-20	30,172.60	862.95	6,348.39	6,755.96	6,746.95

Source: PMFBY website

- Madhya Pradesh:** In the case of Madhya Pradesh, the scheme has been moderately successful with a consistent coverage at around 70 lakh farmers in all the four years. The percentage of farmers covered has also been consistent between 70 percent and 73 percent since the state has around 1 crore farmers. The number of farmers insuring in both kharif and rabi seasons is significantly higher than in Maharashtra with the difference between gross number of farmers covered and number of farmers insured at

around 4 lakhs in 2019-20. The number of farmers benefitting from the scheme has also more than doubled from over 13 lakhs to over 30 lakhs in absolute number as well as in terms of percentage of gross number of farmers covered from 20 percent to 40 percent. However, the area insured has declined by over 10 percent from around 125 lakh ha to around 110 lakh ha.

**Table 6: Physical Coverage of PMFBY in Madhya Pradesh (Number of farmers/Operational holdings in state – 1,00,03,000)**

Year	Gross Number of Farmers Covered (Nos.)	% of Farmers Covered	Number of Farmers Insured (number in Lakhs)	No. of Farmers benefitted (number in Lakhs)	Area Insured (in Lakh Ha.)
2016-17	73,82,466	73.80%	74.60	13.74	126.03
2017-18	72,08,789	72.10%	70.28	24.84	118.17
2018-19	71,16,120	71.10%	73.53	13.65	130.86
2019-20	73,55,509	73.53%	78.92	30.54	111.92

Source: PMFBY website

The financial coverage of the scheme shows fluctuating trends with the sum insured increasing in the first three years and then a steep fall in 2019-20. Though this caused a fall in the gross premium and the farmers' share in premium, the reported claims actually rose from around Rs. 3,500 crores in 2018-19 to almost Rs. 6000 crores in 2019-20 with a corresponding increase in Paid Claims from around Rs. 2500 crores to Rs. 5800 crores in the same period. This was an increase of almost four times; as a percentage of sum insured, the paid claims rose from 5 percent to over 18 percent in these four years. Farmers' share in premium is seen to be around 16 percent to 17 percent of the Gross Premium. This is higher by 3-4 percentage points than in Maharashtra.

**Table 7: Financial Coverage of PMFBY in Madhya Pradesh**

Year	Sum Insured (Rs. In crores)	Farmers' Share in Premium (Rs. In crores)	Gross Premium (Rs. In crores)	Reported Claims (Rs. In crores)	Paid Claims (Rs. In crores)
2016-17	36,897.19	693.11	3,788.04	2,043.80	2,029.08
2017-18	42,055.78	795.73	4,663.15	5,894.60	5,893.13
2018-19	47,979.17	943.69	5,587.32	3,536.37	2,529.92
2019-20	31,845.37	625.50	3,754.57	5,905.48	5,811.75

Source: PMFBY website

- Uttar Pradesh:** It can be seen from Table 8 that though Uttar Pradesh has the highest number of farmers at over 2 crores, the scheme covers barely 20 percent of the farmers in the State. In fact, the coverage of the scheme has reduced from 30% to 19% over the four years. There are a few farmers insuring in both the kharif and rabi seasons as the number of farmers insured is marginally more than the gross number of farmers covered.



However, the number of farmers benefitted is barely 10 lakhs and the area insured under this scheme has actually halved during this period.

**Table 8: Physical Coverage of PMFBY in Uttar Pradesh (Number of farmers/Operational holdings in state – 2,38,22,000)**

Year	Gross Number of Farmers Covered (Nos.)	% of Farmers Covered	Number of Farmers Insured (number in Lakhs)	No. of Farmers benefitted (number in Lakhs)	Area Insured (in Lakh Ha.)
2016-17	72,89,267	30.60%	72.89	11.86	65.11
2017-18	53,28,540	22.40%	54.21	5.84	46.13
2018-19	61,35,777	25.80%	61.27	6.08	51.34
2019-20	45,36,973	19.04%	46.94	9.34	35.57

Source: PMFBY website

As far as financial coverage is concerned, the sum insured has halved from around Rs. 30,000 crores to just over Rs. 16,000 crores. The redeeming feature is that both Reported Claims and Paid Claims have doubled during this period with paid claims increasing as a percentage of the sum insured from around 2 percent to around 6.5 percent. The Farmers' share in premium as a percentage of Gross Premium has been very high in Uttar Pradesh; though it has fallen from over 40 percent to around 25 percent over the four years, it is still too high as compared to Maharashtra and Madhya Pradesh. The high cost for the farmers could be one of the reasons for the low uptake of the scheme in the state.

**Table 9: Financial Coverage of PMFBY in Uttar Pradesh**

Year	Sum Insured (Rs. In crores)	Farmers' Share in Premium (Rs. In crores)	Gross Premium (Rs. In crores)	Reported Claims (Rs. In crores)	Paid Claims (Rs. In crores)
2016-17	29,097.16	529.51	1,205.82	574.58	574.58
2017-18	20,196.89	384.42	1,371.60	380.75	380.75
2018-19	21,887.98	411	1,308.61	453.77	449.64
2019-20	16,743.95	321.95	1,304.82	1,116.75	1,092.74

Source: PMFBY website

- Rajasthan:** The fourth largest state to be covered by the scheme, Rajasthan, has over 75 lakh farmers in the state and over 100 percent coverage. That is, a lot of farmers are insuring in both the kharif and rabi seasons as a result of which over 85 lakh farmers are insured as against 81 lakh Gross number of farmers covered in 2019-20. The scheme saw a persistent fall in the coverage by 6 percent and 25 percent in the second and third year of implementation, but by the fourth year, the scheme had recovered 15 percent of the coverage. The number of farmers benefitted also fell in the second and third years by 4 lakhs and 7 lakhs but increased by 8 lakhs in the fourth year. The area insured fell by 4

lakh ha and 12 lakh ha in the second and third years, but increased by over 18 lakh ha in the fourth year.

**Table 10: Physical Coverage of PMFBY in Rajasthan (Number of farmers/Operational holdings in state – 76,55,000)**

Year	Gross Number of Farmers Covered (Nos.)	% of Farmers Covered	Number of Farmers Insured (number in Lakhs)	No. of Farmers benefitted (number in Lakhs)	Area Insured (in Lakh Ha.)
2016-17	91,89,556	120.00%	94.09	29.031	104.83
2017-18	87,87,301	114.80%	92.88	25.284	100.389
2018-19	69,24,739	90.50%	70.57	18.469	78.216
2019-20	81,31,691	106.22%	85.28	26	96.955

Source: PMFBY website

With reference to Financial Coverage, the sum insured has consistently increased by more than Rs. 5000 crores every year and has doubled from around Rs. 17000 crores to over Rs. 34000 crores. The Paid Claims which are equal to Reported Claims have increased 2.5 times from around Rs. 2000 crores to almost Rs. 5000 crores. This shows that the scheme has been a huge success in Rajasthan. The reason for the success is clearly illustrated in the cost of the scheme for the farmers. The Farmers' share in premium was around 14 percent of the Gross Premium in the first year and then increased to around 18 percent in the second and third year which resulted in a reduction in the coverage. In the fourth year, the Farmers' share of premium fell to 14 percent, which caused the scheme to stage a recovery in terms of both physical and financial coverage.

**Table 11: Financial Coverage of PMFBY in Rajasthan**

Year	Sum Insured (Rs. In crores)	Farmers' Share in Premium (Rs. In crores)	Gross Premium (Rs. In crores)	Reported Claims (Rs. In crores)	Paid Claims (Rs. In crores)
2016-17	17,907.62	377.35	2,563.60	1,917.82	1,917.82
2017-18	23,528.03	501.86	2,703.03	2,224	2,224
2018-19	28,847.43	649.03	3,556.79	3,128.24	3,028.34
2019-20	34,914.77	734.8	5,061.31	4,920.44	4,920.31

Source: PMFBY website

## VII. FINDINGS AND RECOMMENDATIONS

From the above analysis it can be seen that the scheme was an outright failure in Uttar Pradesh even though it has the highest number of farmers at over 2 crores. Both Maharashtra and Uttar Pradesh have over 90% of the holdings by small and marginal farmers. Yet, the sum insured in Maharashtra is over Rs. 30,000 crores, while in Uttar Pradesh, it is just over half of it at around Rs. 16,000 crores. The reason for this is probably the high share of

farmers' premium in Uttar Pradesh (25% to 40%) while in Maharashtra it is only around 14%. However, the sum insured in the three states of Maharashtra, Madhya Pradesh and Rajasthan is at Rs. 30,000 crores, Rs. 31,000 crores and Rs. 34,000 crores respectively for 2019-20. Given the huge farmer population in Maharashtra (1.5 crores) as against 1 crore in Madhya Pradesh and around 75 lakhs in Rajasthan, one would expect the sum insured to be a much larger amount in Maharashtra. However, the small and marginal farmers account for nearly 90% of the holdings in Maharashtra (1.35 crores) whereas they hold only 65% to 70% of the holdings in Madhya Pradesh (65 lakhs) and Rajasthan (52 lakhs) respectively. Further, the non-loanee farmers account for 90% of the applicants in Maharashtra whereas in Madhya Pradesh and Rajasthan it is the other way around. This fact can be corroborated with the data on the dashboard in PMFBY website. This could be a reason for the low value of sum insured in Maharashtra as compared to Madhya Pradesh and Rajasthan.

Thus, the recommendations for the four states are:

- Maharashtra has to increase the availability of credit to the millions of small and marginal farmers so that more loanee farmers are automatically covered by the scheme which will increase the value of the sum insured.
- Madhya Pradesh has to reduce the farmers' share of premium in order to increase the coverage of the scheme among the farmers
- Rajasthan has been very successful in implementing the scheme and other states can draw lessons on reducing the farmers' share of premium to 10% like Rajasthan has done in 2022. Maharashtra and Madhya Pradesh had reduced this to 10%-12% in 2020 and 2021; however, it had increased to 14% in 2022 in both the states.
- Uttar Pradesh has to drastically increase the coverage of the scheme by cutting the farmers' share in premium – it was still at a high of 20% in 2022.

## VIII. SUMMARY AND CONCLUSION

Agriculture being a very risky enterprise needs the most exhaustive and efficient crop insurance system so that farmers are provided with the safety net which they require to brave the risks. The nature of the occupation is such that returns are seasonal while consumption expenditure is perennial. Any additional expenditure in the form of social ceremonies, illness etc., bring upon the farmer unbearable burden. Hence, credit for the farmer becomes a necessity and cannot be viewed as an inefficient way of managing his finances. While institutional credit has made deep inroads in the rural sector, nearly 40 per cent of the small and marginal farmers continue to depend on non-institutional sources of credit like money lenders and local traders for their financial requirements. They borrow funds from these sources at exorbitant rates. When faced with crop loss (due to crop failure or price volatility), they get crushed by the burden of their debt and end their lives. The problems of the farmers have multiplied manifold due to climate change playing havoc on their crops as well globalization driving down prices. The agricultural sector needs several reforms like crop diversification, judicious and equitable utilization of irrigation facilities, easy access to credit, good quality inputs, etc. At the same time, providing an effective safety net to the farmers to mitigate the risks faced by them with respect to yield and prices is of prime importance. The various crop insurance schemes implemented by the government have not been very successful due to the very low level of penetration, lack of coverage of non-loanees, lack of reinsurance for the private players etc. Under such circumstances, the PMFBY promises to be

a ray of hope to the millions of distressed farmers by addressing these issues. The scheme is bound to be faced with some teething problems like its marketing counterpart, the National Agriculture Market (eNAM). But if inputs from experts are incorporated and feedback from the patrons taken into consideration for the efficient implementation of the scheme, it will definitely have a positive impact on the lives of millions of farmers.

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## KEY TERMS

1. **Unit of Insurance:** Defined Area (i.e., unit area of insurance) is Village/Village Panchayat level by what so ever name these areas may be called for major crops and for other crops it may be a unit of size above the level of Village/Village Panchayat. For Risks of Localised calamities and post-Harvest losses on account of defined peril, the Unit of Insurance for loss assessment shall be the affected insured field of the individual farmer.
2. **Compulsory Coverage:** The enrolment under the scheme, subject to possession of insurable interest on the cultivation of the notified crop in the notified area, shall be compulsory for following categories of farmers:

- Farmers in the notified area who possess a Crop Loan account/KCC account (called as Loanee Farmers) to whom credit limit is sanctioned/renewed for the notified crop during the crop season AND
  - Such other farmers whom the Government may decide to include from time to time.
3. **Voluntary Coverage:** Voluntary coverage may be obtained by all farmers not covered above, including Crop KCC/Crop Loan Account holders whose credit limit is not renewed.
  4. **Sum Insured:** In case of Loanee farmers under Compulsory Component, the Sum Insured would be equal to Scale of Finance for that crop as fixed by District Level Technical Committee (DLTC) which may extend up to the value of the threshold yield of the insured crop at the option of insured farmer. Where value of the threshold yield is lower than the Scale of Finance, higher amount shall be the Sum Insured. Multiplying the Notional Threshold Yield with the Minimum Support Price (MSP) of the current year arrives at the value of sum insured. Wherever Current year's MSP is not available, MSP of previous year shall be adopted. The crops for which, MSP is not declared, farmgate price established by the marketing department / board shall be adopted. For farmers covered on voluntary basis the sum-insured is upto the value of Threshold yield i.e., threshold yield x (MSP or gate price) of the insured crop.
  5. **Premium:** The Actuarial Premium Rate (APR) would be charged under PMFBY by Implementation Agency (IA). Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) /States will monitor the premium rates considering the basis of Loss Cost (LC) i.e., Claims as% of Sum Insured (SI) observed in case of the notified crop(s) in notified unit area of insurance (whatsoever may be the level of unit area) during the preceding 10 similar crop seasons (Kharif / Rabi) and loading for the expenses towards management including capital cost and insurer's margined taking into account non-parametric risks and reduction in insurance unit size etc.