

# PRADHAN MANTRI FASAL BIMA YOJANA AN ASSESSMENT







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**Centre for Science and Environment**

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# CHAPTER 1: Introducing Pradhan Mantri Fasal Bima Yojana—Key features and promises

## Background

India is in the throes of an agrarian crisis. Indebtedness, crop failures, non-remunerative prices for crops and poor returns over cost of cultivation have led to distress in the farming sector. According to National Crime Record Bureau data, farmer suicides increased in 2015 by 41.7 per cent over 2014.<sup>1</sup> Farmer suicides were attributed to causes such as indebtedness, crop failure and other farming-related issues. Farmer distress is likely to worsen by the increasing frequency and intensity of unseasonal and extreme weather events due to climate change.<sup>2</sup>

Centre for Science and Environment (CSE) published in 2015 a report, *Lived Anomaly: How to Enable Farmers in India to Cope with Extreme Weather Events*. The report revealed that the existing relief and compensation mechanism for farmers against crop loss—which is ad hoc, chaotic and politicized—has failed to bring timely and adequate help to affected farmers.<sup>3</sup> This study and subsequent consultation<sup>4</sup> drew attention to the urgent need for financial safety nets for farmers to overcome vulnerabilities induced by frequent weather anomalies. A universal crop-insurance mechanism, with various safeguards, was recommended as a key component of the safety net.

## Pradhan Mantri Fasal Bima Yojana

To help farmers cope with crop losses, the Government of India launched its flagship scheme Pradhan Mantri Fasal Bima Yojana (PMFBY), starting from the kharif season of 2016. PMFBY replaced the National Agricultural Insurance Scheme (NAIS) and Modified National Agricultural Insurance Scheme (MNAIS). The Weather-Based Crop Insurance Scheme (WBCIS) remains in place, though its premium rates have been made the same as in PMFBY. State governments have the authority to decide whether they want PMFBY, WBCIS or both in their respective states.

PMFBY is an improvement over NAIS and MNAIS and is designed to reduce the burden of crop insurance on farmers. The scheme came into operation from 1 April 2016 with a Central government budget allocation of Rs 5,500 crore for 2016–17. Further, the Central government plans to bring 40 per cent of agricultural area under PMFBY in 2017–18 and, accordingly, a provision of Rs 9,000 crore has been made in the 2017–18 budget.<sup>5</sup>

## Salient features promised under PMFBY

The salient features promised under PMFBY are as follows:

**Coverage of farmers:** The scheme covers loanee farmers (those who have availed of institutional loans through Kisan Credit Cards etc.), non-loanee farmers (those who avail of insurance cover on a voluntary basis), sharecroppers and tenant farmers (those who farm on rented land). PMFBY is compulsory for loanee farmers.

## Chronology of crop insurance schemes in India

- ❖ Comprehensive Crop Insurance Scheme (CCIS): 1985 to summer 1999 (yield index)
- ❖ National Agricultural Insurance Scheme (NAIS): Winter 1999–2000 to winter 2015–16 (yield index)
- ❖ Pilot Farmers Income Insurance Scheme (FIIS): Summer 2003 to winter 2003–04 (yield index)
- ❖ Pilot Weather Based Crop Insurance Scheme (WBCIS): Summer 2007 to summer 2013 (weather index)
- ❖ Pilot Coconut Palm Insurance Scheme (CPIS): 2009–10 to summer 2013 (specific crop-based)
- ❖ Pilot Modified NAIS (MNAIS): Winter 2010–11 to summer 2013 (yield index)
- ❖ National Crop Insurance Programme (NCIP) with component schemes of MNAIS, WBCIS and CPIS: Winter 2013–14 to winter 2015–16
- ❖ A glimpse of cumulative facts on NAIS, MNAIS, WBCIS, CPIS (Winter 1999 to winter 2015–16):
  - Total farmers insured: 36.9 crore
  - Total area insured: 51.3 crore ha
  - Total premium collected: Rs 3,13,00.8 crore
  - Total claim paid: Rs 5,87,11.4 crore
  - Total farmers benefited: Rs 13.5 crore
- ❖ Pradhan Mantri Fasal Bima Yojana (PMFBY) and restructured WBCIS: April 2016 to the present

**Coverage of crops:** Crops will be notified by respective state governments in state notifications for rabi and kharif seasons. They will be categorized under major crops and other crops.

**Insurance unit:** PMFBY operates on an area-based approach. An insurance unit (IU) at the village/village-panchayat level or equivalent unit for major crops is notified in the state government notification; for other crops the insurance unit<sup>6</sup> could be of a size above the village/village panchayat. For localized calamities and post-harvest losses, IU will be taken as the affected insured field of the individual farmer.

**Coverage of risks and exclusions:** The risks covered for notified crops within a notified IU fall in four categories, including:

1. **Prevented sowing/planting risks:** The insured area is prevented from sowing/planting due to deficit rainfall or adverse seasonal conditions (loss assessed at IU level)
2. **Loss to standing crop (sowing to harvesting):** Comprehensive risk insurance is provided to cover yield losses due to non-preventable risks, i.e. drought, dry spells, flood, inundation, pests and diseases, landslides, natural fire and lightning, storms, hailstorms, cyclones, typhoons, tempests, hurricanes and tornadoes (loss assessed at IU level)
3. **Post-harvest losses (up to a period of 14 days):** Coverage is available for up to a maximum of two weeks from harvesting for crops eligible for drying in cut and spread condition in the field against specific perils of cyclone and cyclonic rains and unseasonal rains after harvesting (loss assessed at the individual-farmer level).
4. **Localized calamities:** Loss/damage from the occurrence of identified localized risks of hailstorms, landslides or inundation affecting isolated farms in the notified area (loss assessed at the individual-farmer level).

Individual-farm-level assessment for post-harvest losses against cyclonic or unseasonal rains for crops kept in fields to dry for up to 14 days has been provided throughout the country.

**Premium rates:** PMFBY fixes a uniform premium of 2 per cent of the value of sum insured to be paid by farmers for all kharif crops, 1.5 per cent of sum insured for all rabi crops, 5 per cent of sum insured for annual commercial and horticultural crops or actuarial rate, whichever is less. The balance premium will be paid by the government to provide the complete insured amount to farmers against crop loss on account of natural calamities. The subsidy is divided equally between the state and Central government. There is no upper limit on government subsidy for actuarial premium.<sup>7</sup>



**Weather-Based Crop Insurance Scheme (WBCIS):** Premium rates under WBCIS have also been reduced and made similar to PMFBY. Further, capping on actuarial premium rate and reduction in sum insured has also been removed in this scheme, in line with PMFBY.

**Indemnity level:** PMFBY has three levels of indemnity (level of protection against a loss)—70 per cent, 80 per cent and 90 per cent corresponding to high-, moderate- and low-risk area for all notified crops by respective state governments. This means that farmers are themselves to bear the loss of 30 per cent, 20 per cent or 10 per cent respectively.

**Threshold yield:** Threshold yield<sup>8</sup> of a specific crop will be calculated based on average yield of the last seven years excluding up to two calamity years and the corresponding indemnity level.

**Sum insured:** Sum insured<sup>9</sup> (SI) per hectare for both a loanee and a non-loanee farmers is the same and equal to the scale of finance (equal to cost of cultivation plus some profit)<sup>10</sup> as decided by the District Level Technical Committee and would be pre-declared by the State Level Coordination Committee on Crop Insurance (SLCCCI) and notified. Sum insured for an individual farmer is equal to the scale of finance per hectare multiplied by the area of the notified crop proposed by the farmer for insurance.

**Innovative technology usage:** Use of innovative technology is largely encouraged. The use of smartphones has been proposed to capture and upload data of crop cutting to reduce delays in claim payments to farmers. Drones and remote sensing will be used to reduce the number of crop cutting experiments (CCEs)—the traditional random survey method used to estimate crop yields of a location—and remove area discrepancy in coverage.

**Payment of claims:** Payment of final claims to farmers will be made electronically within three weeks from receipt of crop yield data by the insurance company. Innovative technology will be used to reduce delay in payment to farmers. There is provision for payment of claims because of mid-season adversity, prevented/failed sowing and prevented planting/germination, and post-harvest losses within a definite time frame.

- There is provision for claims up to 25 per cent of sum insured for prevented sowing.
- 'On-account payment' up to 25 per cent of sum insured value for mid-season adversity will be made in farmer accounts if the crop damage is reported more than 50 per cent in the insurance unit. The remaining claims will be made on the basis of CCE data.

**Cluster approach for insurance company:** For more effective implementation, a cluster approach will be adopted under which a group of districts with variable risk profiles will be allotted to an insurance company through competitive bidding for up to three years.

**Insurance company presence at local level:** The insurance company has to establish a functional office in each tehsil and at least one agent should be deployed at the block level in allocated districts.

**Provision of crop insurance portal:** A crop insurance portal ([www.agri-insurance.gov.in](http://www.agri-insurance.gov.in)) has been created under PMFBY to enable better administration, coordination amongst stakeholders, proper information dissemination and transparency for farmers, states, insurers and banks.

**Toll-free number:** A centralized dedicated toll-free number will be at the insurance company office for claim intimation.

**Overall, PMFBY is far superior to the previous schemes. For a detailed comparison between PMFBY and previous insurance schemes, refer to Annexure 1.**

## CHAPTER 2:

# Coverage and performance of PMFBY in kharif 2016

Centre for Science and Environment (CSE) undertook a detailed study to assess the state of implementation of PMFBY, including loopholes and challenges involved in the process. Field visits were made in Haryana, Tamil Nadu and Uttar Pradesh to get firsthand understanding of PMFBY implementation during kharif 2016. A round table was also conducted in Delhi with farmer leaders from Rajasthan, Telangana, Karnataka, Uttar Pradesh, Haryana, Maharashtra, Madhya Pradesh and Himachal Pradesh as well as civil society members (see *Annexure 3* for the list of participants). Interviews were conducted with stakeholders, including farmers and their representatives, block-, district-, state- and Central-level government officials, and representatives of banks, insurance companies and representatives of Panchayati Raj Institutions. Last, all available data on PMFBY for kharif 2016 was collected and analysed.

### PMFBY coverage

At the all-India level, coverage of agricultural insurance has significantly increased in kharif 2016 compared to kharif 2015 (see *Table 1: Agricultural insurance coverage: Kharif 2016 vs kharif 2015*). Latest Ministry of Agriculture (MOA) data shows that the number of farmers insured has reached a little over 4.0 crore during in kharif 2016; during kharif 2015 this number was about 3.09 crore. **In other words, PMFBY has led to about a 30 per cent increase in the number of farmers insured.**

**Area insured has increased by about 16 per cent in kharif 2016 compared to kharif 2015.** However, average area insured per farmer has reduced by about 11 per cent—from 1.1 ha/farmer in kharif 2015 to 0.98 ha/farmer in kharif 2016. This could mean either of two things—that either large numbers of farmers with smaller landholdings were insured under PMFBY or that farmers are taking insurance for only a small part of their land. Our field-level survey indicates that as smaller farmers are taking loans, they are coming under the mandatory insurance coverage. This is a good trend as more small farmers are getting insurance coverage.

The biggest increase has been in sum insured. Sum insured has almost doubled, from Rs 69,369 crore in kharif 2015 to Rs 1,35,006 crore in kharif 2016. **On an average, during kharif 2015, the sum insured per hectare of land was about Rs 20,500; during kharif 2016 the sum insured per hectare land has gone up to Rs 34,370—an increase of 68 per cent.** This indicates that the promise of PMFBY to bring sum insured closer to the cost of cultivation is partly being fulfilled.

Coverage has increased significantly in states like Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and West Bengal.

In Maharashtra, about 21 lakh more farmers took insurance during kharif 2016 compared to kharif 2015. In West Bengal, about 20 lakh more farmers got insured during kharif 2016. In Gujarat, the number of farmers insured during kharif 2016 was more than three times those insured during kharif 2015. There have also been significant increases in states such as Haryana, Karnataka and Madhya Pradesh.

A key aspect of an agricultural insurance scheme is whether it is able to include small farmers. The other key aspect is whether the sum insured is adequate to compensate farmers in case of losses. The all-India picture indicates that PMFBY has been able to attract small farmers and that the sum insured has increased significantly. But is the picture same in each state? Let us examine this.

**Table 1: Agricultural insurance coverage: Kharif 2016 vs kharif 2015***PMFBY has increased the coverage of agricultural insurance significantly*

S. no	State/UT	Kharif 2015*			Kharif 2016**			Change in coverage during kharif 2016 vs kharif 2015		
		No. of farmers insured (in lakhs)	Area insured (in lakh ha)	Sum insured (in Rs crore)	No. of farmers insured (in lakhs)	Area insured (in lakh ha)	Sum insured (in Rs crore)	Change in no. of farmers insured (in per cent)	Change in area insured (in per cent)	Change in sum insured (in per cent)
1	Andaman and Nicobar	0.01	0.01	5.11	0.00	0.00	0.00	-100.0	-100.0	-100.0
2	Andhra Pradesh	15.06	19.86	6,860.19	15.93	20.92	9,744.05	5.8	5.3	42.0
3	Assam	0.31	0.20	117.38	0.52	0.37	205.47	66.4	84.3	75.1
4	Bihar	16.55	15.04	5,834.51	14.84	13.11	6,526.16	-10.3	-12.8	11.9
5	Chhattisgarh	12.02	21.61	3,052.21	14.04	22.87	6,967.78	16.8	5.9	128.3
6	Goa	0.10	0.00	0.52	0.01	0.01	5.77	-92.6	392.1	1009.3
7	Gujarat	5.04	10.27	3,529.41	18.42	25.67	11,248.90	265.5	149.8	218.7
8	Haryana	0.00	0.00	0.00	7.31	11.97	7,073.30			
9	Himachal Pradesh	0.29	0.14	95.83	1.35	0.40	298.36	371.3	192.0	211.3
11	Jharkhand	5.36	3.74	854.06	8.28	3.53	1,890.97	54.5	-5.6	121.4
12	Karnataka	8.73	12.02	3,000.40	17.39	14.05	6,948.44	99.2	16.9	131.6
13	Kerala	0.22	0.25	100.73	0.32	0.21	109.83	44.0	-12.7	9.0
14	Madhya Pradesh	31.19	68.43	11,673.75	40.13	71.89	20,115.72	28.6	5.1	72.3
15	Maharashtra	89.39	56.93	9,943.39	110.21	67.54	21,610.90	23.3	18.6	117.3
16	Manipur	0.07	0.17	45.06	0.08	0.09	36.94	19.5	-45.7	-18.0
17	Meghalaya	0.50	0.00	1.63	0.00	0.00	0.29	-99.9	-93.4	-82.1
19	Odisha	21.53	19.45	7,117.10	17.64	12.57	6,889.08	-18.1	-35.4	-3.2
20	Puducherry	0.00	0.00	1.71	0.00	0.00	0.00	-100.0	-100.0	-100.0
21	Rajasthan	64.10	73.00	4,402.43	61.30	73.96	9,940.06	-4.4	1.3	125.8
23	Tamil Nadu	1.47	1.43	795.99	0.16	0.31	211.42	-89.1	-78.2	-73.4
24	Telangana	9.50	11.10	4,875.12	6.85	5.88	3,645.90	-27.9	-47.0	-25.2
25	Tripura	0.01	0.01	1.89	0.02	0.01	3.58	90.2	27.0	89.3
26	Uttar Pradesh	16.89	19.81	5,080.63	33.96	30.63	12,599.22	101.1	54.6	148.0
27	Uttarakhand	0.86	0.59	314.09	1.75	1.01	699.19	103.8	70.6	122.6
28	West Bengal	10.25	4.46	1,665.97	31.03	15.84	8,234.39	202.7	255.2	394.3
	<b>TOTAL</b>	<b>309.4</b>	<b>338.5</b>	<b>69,369.1</b>	<b>401.5</b>	<b>392.8</b>	<b>1,35,005.7</b>	<b>29.8</b>	<b>16.0</b>	<b>94.6</b>

Notes: \*Sum total of National Agriculture Insurance Scheme, Modified National Agriculture Insurance Scheme and Weather Based Crop Insurance Scheme

\*\* Sum total of PMFBY and Revised Weather Based Crop Insurance Scheme

Source: Ministry of Agriculture and Farmers Welfare, Government of India

### a. Inclusion of small farmers

The average area insured per farmer has decreased in every state except Assam, Rajasthan, Tamil Nadu and West Bengal. The number of farmers insured in Assam and Tamil Nadu is relatively small and it is hence difficult to make any judgement about the inclusion of small farmers. In West Bengal, the average area insured per farmer has increased from 0.4 ha to 0.5 ha. Thus, even though the area insured per farmer has increased, the average area insured is just 0.5 ha. This indicates that largely small farmers are availing agriculture insurance. In Rajasthan, the average area insured has gone up from 1.1 ha to 1.2 ha—an increase of about 6 per cent. This does not indicate inclusion or exclusion of small farmers. **Overall, it seems that large numbers of small farmers have taken insurance under PMFBY. The reason for this seems to be that small farmers are taking loans and are hence getting covered under the mandatory insurance coverage.**

## b. Sum insured

As far as sum insured per hectare of land is concerned, there have been significant increases in all states. In states such as Chhattisgarh, Goa, Jharkhand, Meghalaya and Rajasthan, sum insured per hectare has more than doubled. In Madhya Pradesh, Maharashtra and Uttar Pradesh, the increase has been 50–80 per cent. The all-India average increase is about 67 per cent. **Our analysis shows that the sum insured under PMFBY is closer to the Scale of Finance (which is equal to cost of cultivation plus some profit) than previous schemes like MNAIS and NAIS.** In many states, however, the sum insured under PMFBY is still significantly lower than the scale of finance. Rajasthan clearly emerges as a state where sum insured is substantially lower than the scale of finance. **The sum insured per hectare in Rajasthan was just Rs 13,400/ha during kharif 2016. This is just about one-third of the Scale of Finance. Sum insured is also lower in Madhya Pradesh, though it is better than Rajasthan's.**

Our district-level case studies indicate that there is still big gap between sum insured and scale of finance. But, overall, PMFBY has done far better than NAIS and MNAIS in terms of coverage and sum insured.

**Table 2: Average area insured and average sum insured**

*Average area insured has gone down and sum insured has gone up*

S. no	State /UT	Kharif 2015		Kharif 2016		Kharif 2016 vs kharif 2015	
		Average area insured per farmer (ha)	Average sum insured per hectare land (Rs/ha)	Average area insured per farmer (ha)	Average sum insured per hectare land (Rs/ha)	Average area insured per farmer (% change)	Average sum insured per hectare land (% change)
1	Andaman and Nicobar	1.6	63,072				
2	Andhra Pradesh	1.3	34,535	1.31	46,574	-0.4	34.9
3	Assam	0.6	58,946	0.71	55,995	18.3	-5.0
4	Bihar	0.9	38,792	0.88	49,775	-2.8	28.3
5	Chhattisgarh	1.8	14,126	1.63	30,466	-9.4	115.7
6	Goa	0.0	47,127	0.73	1,06,229	6,532.4	125.4
7	Gujarat	2.0	34,354	1.39	43,825	-31.7	27.6
8	Haryana			1.64	59,092		
9	Himachal Pradesh	0.5	70,400	0.29	75,072	-38.1	6.6
10	Jharkhand	0.7	22,862	0.43	53,612	-38.9	134.5
11	Karnataka	1.4	24,952	0.81	49,444	-41.3	98.2
12	Kerala	1.1	41,011	0.68	51,239	-39.4	24.9
13	Madhya Pradesh	2.2	17,060	1.79	27,982	-18.3	64.0
14	Maharashtra	0.6	17,467	0.61	31,996	-3.8	83.2
15	Manipur	2.4	26,822	1.09	40,500	-54.6	51.0
16	Meghalaya	0.0	49,969	0.34	1,34,759	5,172.3	169.7
17	Odisha	0.9	36,599	0.71	54,810	-21.1	49.8
18	Puducherry	0.7	58,929				
19	Rajasthan	1.1	6,030	1.21	13,441	5.9	122.9
20	Tamil Nadu	1.0	55,656	1.94	67,795	99.6	21.8
21	Telangana	1.2	43,919	0.86	61,975	-26.5	41.1
22	Tripura	0.7	28,435	0.44	42,371	-33.2	49.0
23	Uttar Pradesh	1.2	25,652	0.90	41,138	-23.1	60.4
24	Uttarakhand	0.7	52,997	0.58	69,173	-16.3	30.5
25	West Bengal	0.4	37,365	0.51	51,997	17.3	39.2
	<b>TOTAL</b>	1.1	20,493	0.98	34,368	-10.6	67.7

Source: Analysis based on the data provided by Ministry of Agriculture and Farmers Welfare, Government of India

## Loanee vs non-loanee farmers

On 7 December 2016, a Union Ministry of Agriculture press release claimed that Pradhan Mantri Fasal Bima Yojana (PMFBY) has made impressive progress in 2016. According to the press release, 'there has been a quantum jump of more than 6 times in the coverage of non-loanee farmers from 14.88 lakh in Kharif 2015 to 102.6 lakh in Kharif 2016, which shows that the scheme has been well received by the non-loanee segment'.<sup>1</sup>

This assertion was based on the increase in numbers of non-loanee farmers in four states, Maharashtra, Jharkhand, Madhya Pradesh and West Bengal. In the large majority of states, the increase or decrease in the numbers of non-loanee farmers has been marginal.

In Maharashtra, the number of non-loanee farmers availing agriculture insurance increased from nil in kharif 2015 to 71 lakh in kharif 2016. In West Bengal, the increase in non-loanee farmers in kharif 2016 compared to kharif 2015 was 12.8 lakh. In Jharkhand and Madhya Pradesh, the increase was 2.9 lakh and 3.9 lakh respectively. The four states, therefore, account for all the increase in the non-loanee farmer coverage. Thus, the assertion that the scheme has been well received by non-loanee farmers is a bit of a stretch as non-loanee farmers across the country, barring in the aforementioned four states, have not opted for PMFBY.

Let us look at some of the states closely.

The largest increase in the non-loanee farmer coverage is shown in Maharashtra—an increase of 70.88 lakh. This is clearly a mistake. In 2005, the Bombay High Court directed the state government that the agricultural insurance scheme would be voluntary in the state of Maharashtra. This meant that either banks take permission from loanee farmers to deduct premium from the loan or that non-loanee farmers directly purchase insurance from the banks. So, in Maharashtra a large majority of farmers (over 90 per cent) buying insurance are counted in the non-loanee category. Therefore, showing nil non-loanee farmers in kharif 2015 is incorrect.

In West Bengal, the increase in non-loanee farmers is because the state government has completely waived off premium contributions of farmers. Farmers have not voluntarily bought insurance.

In Jharkhand, the data is also suspect as it seems that insurance issued by cooperative banks has been put under the non-loanee category. But this need more investigation.

**If we exclude the Maharashtra and West Bengal data, then there is virtually no increase in non-loanee farmers. The percentage of non-loanee farmers availing insurance remained less than 5 per cent during kharif 2016 and kharif 2015.**



**Table 3: Comparison of number of farmers insured in kharif 2016 with kharif 2015**

S. no	State	Kharif 2015*			Kharif 2016**			Kharif 2016 vs kharif 2015 (per cent change)		
		Details of insured farmers (in lakhs)			Details of the insured farmers (in lakhs)			Details of insured farmers (in lakhs)		
		Loanee	Non-loanee	Total	Loanee	Non-loanee	Total	Loanee	Non-loanee	Total
1	Andaman and Nicobar	0.00	0.00	0.01						
2	Andhra Pradesh	15.00	0.06	15.06	14.42	0.67	15.09	-3.87	1,016.67	0.20
3	Assam	0.31	0.00	0.31	0.51		0.51	64.52	-100.00	63.99
4	Bihar	15.90	0.65	16.55	14.38	0.23	14.61	-9.56	-64.62	-11.72
<b>5</b>	<b>Chhattisgarh</b>	<b>11.64</b>	<b>0.38</b>	<b>12.02</b>	<b>11.69</b>	<b>1.57</b>	<b>13.26</b>	<b>0.43</b>	<b>313.16</b>	<b>10.32</b>
6	Goa	0.10	0.00	0.10	0.01		0.01	-93.00		-93.00
7	Gujarat	5.02	0.02	5.04	11.89	0.02	11.91	136.85	0.00	136.31
8	Haryana	0.00	0.00	0.00	6.90	0.06	6.96			
9	Himachal Pradesh	0.28	0.01	0.29	0.95	0.02	0.97	239.29	185.71	237.98
10	Jammu and Kashmir	0.00	0.00	0.00						
<b>11</b>	<b>Jharkhand</b>	<b>1.38</b>	<b>3.98</b>	<b>5.36</b>	<b>1.61</b>	<b>6.88</b>	<b>8.49</b>	<b>16.67</b>	<b>72.86</b>	<b>58.40</b>
12	Karnataka	3.81	4.92	8.73	8.33	2.26	10.59	118.64	-54.07	21.31
13	Kerala	0.21	0.01	0.22	0.22		0.22	4.76	-100.00	0.46
<b>14</b>	<b>Madhya Pradesh</b>	<b>31.19</b>	<b>0.00</b>	<b>31.19</b>	<b>32.60</b>	<b>3.94</b>	<b>36.54</b>	<b>4.52</b>	<b>196,900.00</b>	<b>17.15</b>
<b>15</b>	<b>Maharashtra ***</b>	<b>89.39</b>	<b>0.00</b>	<b>89.39</b>	<b>35.51</b>	<b>70.88</b>	<b>106.39</b>	<b>-60.28</b>		<b>19.02</b>
16	Manipur	0.02	0.05	0.07				-100.00	-100.00	-100.00
17	Meghalaya	0.50	0.00	0.50	0.00		0.00	-99.88		-99.88
18	Mizoram	0.00	0.00	0.00						
19	Odisha	19.81	1.72	21.53	17.32	0.29	17.61	-12.57	-83.14	-18.21
20	Puducherry	0.00	0.00	0.00					-100.00	-100.00
21	Rajasthan	64.10	0.00	64.10	53.05	0.01	53.06	-17.24		-17.23
22	Sikkim	0.00	0.00	0.00						
23	Tamil Nadu	1.44	0.03	1.47	0.13		0.13	-90.97	-100.00	-91.16
24	Telangana	8.77	0.73	9.50	6.00	0.56	6.56	-31.58	-23.97	-31.00
25	Tripura	0.01	0.00	0.01	0.01	0.01	0.02	0.00		100.00
26	Uttar Pradesh	16.88	0.01	16.89	30.03	0.01	30.04	77.90	100.00	77.91
27	Uttarakhand	0.84	0.02	0.86	1.17	0.11	1.28	39.29	450.00	48.84
<b>28</b>	<b>West Bengal</b>	<b>7.97</b>	<b>2.28</b>	<b>10.25</b>	<b>17.31</b>	<b>15.09</b>	<b>32.40</b>	<b>117.19</b>	<b>561.84</b>	<b>216.10</b>
	<b>Total</b>	<b>294.57</b>	<b>14.87</b>	<b>309.44</b>	<b>264.04</b>	<b>102.60</b>	<b>366.64</b>	<b>-10.37</b>	<b>590.03</b>	<b>18.48</b>

Notes: \*Sum total of National Agriculture Insurance Scheme, Modified National Agriculture Insurance Scheme and Weather Based Crop Insurance Scheme

\*\* Sum total of PMFBY and Revised Weather Based Crop Insurance Scheme

\*\*\* All farmers covered under National Agricultural Insurance Scheme in Maharashtra in 2015 were voluntary loanees.

Source: Ministry of Agriculture and Farmers Welfare, Government of India

# CHAPTER 3

## Issues and challenges

PMFBY is a transformative scheme. It envisages a universal subsidized agricultural insurance scheme that is farmer friendly and fair. However, at the state level, its vision is diluted. At the district level, its implementation is seriously compromised. PMFBY is a classic case of poor implementation of a great scheme.

On our field visits, we found considerable dissatisfaction among the farmers with regard to PMFBY implementation on the ground. Farmers in Haryana and Uttar Pradesh have opposed the deduction of premium. There have been protests by farmers against this scheme. Some farmer activists of Haryana have even approached the court to dismantle PMFBY, as they believe the scheme does not represent their concerns. In Haryana, PMFBY is referred to as Jabri Fasal Bima Yojana.<sup>1</sup>

It is quite clear that there has not been a large-scale mass awareness programme to inform farmers about this scheme; banks and insurance companies have done a poor job in communicating this scheme. Agriculture Departments have not done much better. The scheme remains a top-down compulsory one for farmers availing loans.

The following are challenges observed in the implementation of scheme during kharif 2016.

### 1. State-level policy

Many state governments have diluted PMFBY guidelines in their respective state notification as per their own convenience, which goes against the spirit of PMFBY. Further, some state governments delayed issuing notifications.

- (i) **Delayed notification:** As per the PMFBY operational guidelines, there should be a gap of at least one month between notification issuance and date of risk inception. **In many states, however, the PMFBY notification was issued after the sowing season had already begun.** Banks, therefore, started deducting premium in the middle of the sowing season. For example, the date of premium deduction by banks (August–September 2016) in Haryana was after the date of kharif crop sowing (June 2016). Similarly, the normal sowing period for kharif in Madhya Pradesh is June–July; however premium was deducted generally in August 2016. A similar situation prevailed in other states as well—Bihar and Gujarat issued PMFBY notification in the middle of July.

Delayed notification meant that farmers could not avail claims for prevented sowing. This issue was also observed in the implementation of MNAIS. The Report of the Committee to Review the Implementation of Crop Insurance Schemes, Department of Agriculture and Cooperation, Ministry of Agriculture, May 2016 found that **there was no occasion when claims due to prevented sowing and post-harvest losses had been paid under MNAIS. The experience was the same during kharif 2016 in PMFBY.**

- (ii) **Threshold yield:** As per PMFBY operational guidelines, state governments notify threshold yield for notified crops for every insurance unit. Once threshold yields are notified, they cannot be changed at a later stage under any circumstance.

**Most states (excluding states such as Haryana) have not mentioned threshold yield in the state notification.** Examples include Gujarat, Himachal Pradesh, Madhya Pradesh, Rajasthan, Tamil Nadu, Maharashtra and Uttar Pradesh. If there is no mention of threshold yield, it is unclear how claims will be processed and compensation paid.

In Haryana—where threshold yield has been notified—farmers showed CSE researchers that the yield numbers in the state notification is significantly lower than the actual yield for many crops. If threshold yield is lower than the actual yield in farmers field, farmers are not likely to get adequate claim against the crop losses.

Some issues observed regarding estimation of threshold yield are:

- Historical average yield mentioned in state government records, provided by patwaris, lekhpals or local government officials over many years, are generally not reliable. Threshold yields determined in many cases are so low that even if half the crop is damaged, farmers will not be able to get any claim as even the damaged crop yield might be higher than the threshold yield of that particular crop.
- Many individual farmers use high yielding crop varieties. Even the worst yield of such high yielding varieties are generally above the threshold yield mentioned in state notifications. In such cases, farmers are not likely to be compensated even if they have lost a significant part of the crop. This is one of the biggest concerns for farmers.
- The insurance unit under PMFBY has been reduced to the village level. But average historical yield data is not available for many villages, as previous yield records are available for the block/taluka level. In such a scenario, it is not clear how government and insurance companies will calculate average yield values. Yield varies greatly from one village to another.

**(iii) Sum insured lower than scale of finance:** Though sum insured under the PMFBY is higher than in previous schemes, in many states sum insured is still far lower than the scale of finance (SoF). It seems that states have intentionally reduced the value of sum insured to decrease their part of subsidy to be paid for the premium. This significantly reduces the claim received by farmers, as only a fraction of cost of cultivation value is insured. Let's consider some of the cases that we encountered:

### Case study 1:

On the basis of cost of cultivation, the district-level technical committee (DLTC) in Bundi district, Rajasthan, had determined the scale of finance for soya bean, paddy, urad and maize crops respectively as Rs 50,000 per ha, Rs 65,000 per ha, Rs 30,000 per ha and Rs 40,000 per ha.<sup>2</sup> However, the sum insured for soya bean, paddy, urad and maize was Rs 16,539 per ha, Rs 17,096 per ha, Rs 21,750 per ha and Rs 26,110 per ha, as per the Rajasthan State PMFBY Kharif 2016 Notification. This means that sum insured was just 33 per cent, 26 per cent, 72.5 per cent and 65 per cent of the scale of finance for soya bean, paddy, urad and maize crops respectively.

**Table 4: Scale of finance and sum insured in Bundi district, Rajasthan**

Crop	Scale of finance as per DLTC meeting (Rs/ha)	Sum insured (Rs/ha) as per Rajasthan State PMFBY notification	Sum insured as a percentage of scale of finance (per cent)
Soya bean	50,000	16,539	33
Paddy	65,000	17,096	26
Urad	30,000	21,750	72.5
Maize	40,000	26,110	65

Source: District Level Technical Committee meeting report dated 14 March 2016 related to calculation of scale of finance at the Bundi Central Cooperative Bank Limited, Bundi district, as received from Brij Mohan Sharma, Chairman, Gram Seva Sahkari Samiti, Arnetha, Bundi, Rajasthan.

The implication of such a low sum insured is that the farmers are not likely to get any compensation even if they lose a significant part of their crop. For instance, if a farmer in Bundi loses two-thirds of his soya bean crop or three-fourth of his paddy crop, he will receive a paltry compensation from the insurance company.

If farmers in Bundi lose their entire crop, the maximum claim amount they receive would still be just a fraction of the cost of production. At a 90 per cent indemnity level for soya bean crop, their claim amount would just be 28 per cent of the cost of production; for paddy it will be less than 25 per cent; for urad it will be about 65 per cent and for maize less than 60 per cent.

### Case study 2:

In Madhya Pradesh, the scale of finance for some crops varied widely between districts even though the cost of production in these districts were more or less the same. The scale of finance for soya bean crop was just Rs 10,000 for Chindwada district, Rs 18,500 in Harda district and Rs 56,000 in Neemach district.<sup>3</sup> However, the actual cost of production, estimated by CSE on the basis of a farmer interview, was around Rs 50,000 per hectare in these districts.

### Case study 3:

In Beed district of Maharashtra, the cost of cultivation for moong in 2015–16 given in the Maharashtra State Agriculture Price Commission was Rs 34,147 per ha. However Maharashtra State Kharif 2016 notification of PMFBY kept the value of sum insured at just Rs 18,000 per ha—about 53 per cent of the cost of production.

**If the sum insured is lower than the scale of finance, or the scale of finance established by the District Level Technical Committee is lower than the cost of production, the insurance scheme has little value for framers as they are not likely to get adequately compensated for their losses.**

#### (iv) States not including important crops in the list of notified major crops

The criteria to declare ‘major crops’ at district level is not clear, as many cases were observed where a specific crop, despite being one of the main crops in that area, was not notified as a major crop. Once a crop is not notified as a major crop, a farmer cannot take insurance on that crop under PMFBY. This excludes a large number of farmers, who grow non-notified crops, from PMFBY.

Let us consider Haryana. Although moong, urad, jowar and sunflower seed are sown in many parts of the state, they have not been included in the state notification under major crops. Similarly, some districts in Telangana have notified just one crop as a ‘major crop’ in a specific insurance unit, while farmers are sowing three or four other crops extensively in those insurance units. In Madhya Pradesh, many crops widely sown in the districts have not been notified under the state PMFBY notification.

**Table 5: Important crops not notified by the Madhya Pradesh government**

District	Name of crops not notified or notified only in very small parts of the district	Area under cultivation during kharif 2016 (in ha)	Remarks, if any
Sehore	Moong, urad, maize, tuar	Maize (11,810 ha), tuar (12,310 ha), moong (16,150 ha), urad (1100 ha)	Maize and tuar have been notified in very few insurance units only
Vidisha	Urad, moong	Moong (6383 ha), urad (1,24,600 ha)	Urad and moong extensively sown by farmers in the district but not notified under PMFBY
Hoshangabad	Moong, urad, maize	Moong (52,690 ha), urad (14,080 ha), maize (16,160 ha)	
Harda	Moong, urad, maize	Moong (1500 ha), urad (4000 ha), maize (14000 ha)	
Betul	Jowar, maize, tuar	Jowar (11,230 ha), maize (70,520 ha), tuar (26,840)	Maize and tuar notified only in a few insurance units only

Source: District Agriculture Department, Government of Madhya Pradesh

#### (v) State government not paying subsidy on time

State governments have not been able to pay their part of subsidy to insurance companies on time. This has been one of the reasons for delay in claim payments by insurance companies. State budgetary constraints seem to be a factor in not providing timely premium subsidies to the insurance companies. **In many states, PMFBY is taking away a significant part of the state budget for the agriculture sector.** In Bihar, for example, the premium subsidy that the state government had to pay during kharif 2016 was Rs 650 crore, which is one-fourth of the total annual agriculture budget. In Madhya Pradesh, the expected premium subsidy was Rs 1,485 crore, which is 60 per cent of its total agriculture budget of Rs 2,448 crore in 2016–17.

**Table 6: Status of the payment of the premium subsidy by states for kharif 2016**

State	Status of the payment of the premium subsidy by the states as in April 2017
Karnataka	Fully paid
Uttar Pradesh	Fully paid
Goa	Fully paid
Uttarakhand	Fully paid
Haryana	Fully paid
Assam	Fully paid
Kerala	Fully paid
West Bengal	Fully paid
Andhra Pradesh	Partially paid
Chhattisgarh	Partially paid
Gujarat	Partially paid
Himachal Pradesh	Partially paid
Jharkhand	Partially paid
Madhya Pradesh	Partially paid
Maharashtra	Partially paid
Odisha	Partially paid
Rajasthan	Partially paid
Tamil Nadu	Partially paid
Telangana	Partially paid
Tripura	Not paid
Meghalaya	Not paid
Bihar	Not paid

Source: Agriculture Insurance Company Limited, April 2017

#### **(vi) Negligible coverage of sharecropper and tenant farmers**

Like previous crop insurance schemes (NAIS, MNAIS and WBCIS), PMFBY has failed to include sharecropper and tenant farmers in the scheme. The primary reason is that to avail of insurance, farmers need papers or certification to prove that they are farming as tenants or sharecroppers. This is not feasible as most state governments have either legally banned or imposed restrictions on agricultural land leasing. For example, states such as Kerala and J&K have prohibited leasing out agricultural land and states such as Bihar, Karnataka, UP, MP, Chhattisgarh, Uttarakhand, HP, Telangana and Odisha have prohibited leasing out agricultural land with some exceptions. In Punjab, Haryana, Gujarat and Maharashtra, tenants acquire the right to purchase leased land from the owner after a specified period of tenancy. There is a need to change land tenure laws in states that allow easy registration of tenant farmers without any punitive measures on the landowner or the sharecropper/tenant farmers. Until this is done, PMFBY will not be able to include sharecropper/tenant farmers in the scheme.

#### **(vii) Mixed cropping and crop diversification discouraged**

A limited number of crops are notified by states under PMFBY. Only these crops can avail of insurance. This can act as an impediment to crop diversification. Also, the notification of crops under PMFBY overlooks the fact that many farmers practise mixed cropping to enable food sustenance. Insurance is never provided for mixed cropping. PMFBY will have to make insurance relevant to farmers by including more and more crops under notification and by allowing insurance for mixed cropping.



**(viii) PRI involvement in PMFBY**

The PMFBY Operational Guidelines promised that Panchayati Raj Institutions would be involved in the implementation of PMFBY and that district-level technical/monitoring committees would be formed. But Panchayati Raj Institutions are not involved in most states at any stage of implementation of the scheme. Further, district-level technical/monitoring committees have either not been formed or are not effective in many districts in states such as Telangana and Uttar Pradesh.

**(ix) Poor awareness about PMFBY**

There has been no concerted effort to build awareness of farmers on PMFBY. State governments and insurance companies were to undertake extensive awareness and publicity campaigns about the scheme among the farming community through Agriculture and Extension Departments. But no significant initiative was taken by any agency to inform farmers about various procedures and aspects of PMFBY at the local level. For instance, in the CSE survey, very few farmers were aware of the procedure to get claim for crop losses under localized calamities and post-harvest losses. As farmers are not aware that they need to inform insurance companies of their losses within 48 hours of the calamity and provide evidence of their loss, they are not likely to receive compensation for losses.

Lack of information is one of the biggest impediments and reasons for farmer dissatisfaction with regard to PMFBY. For example, when contacted district- and state-level officials in Tamil Nadu declined to share data relating to threshold yield, sum insured and CCEs, citing confidentiality.

**2. Implementation****(i) Wrong and double premium deduction**

Banks officials deduct premium as per farmer claims or reports given by patwaris/lekhpals/local government officials about the notified crop sown by the farmer. **CSE researchers observed that, in many instances, premium was deducted by banks for non-notified crops.** This is illegal and should be strictly dealt with. Insurance companies receive premiums from farmers, but farmers are not insured for non-notified crops. In the case of damage to non-notified crops, the farmer will not be compensated for the loss.

- Farmers of Chhichdana village and nearby villages in Sonapat district, Haryana, informed the CSE team that premium was deducted for sugar cane crop from the accounts of many farmers, even though sugar cane is not notified as per the Haryana State PMFBY Notification. Farmers protested to get back their money but have still not received their money.
- Farmers from Bhuwankhedi, Harda district, Madhya Pradesh said that they had sown urad during kharif 2016 but the bank deducted premium for soya bean crop. They have no hope of getting their money back from the bank.
- Many farmers in Badheri village, Sonapat district had grown bajra and cotton crop but their premium was deducted in the name of paddy.
- A farmer in Malendi village, Shamli district, Uttar Pradesh had poplar plantations in his field but premium was deducted for other crops.

CSE researchers also came across cases where for the same land, a farmer had two insurance coverages. **If a farmer obtains a loan from a bank as well as cooperative society, both institutions deduct the insurance premium for the same land and crop.** Under such circumstances, one farmer is insured twice for the same crop. However, from kharif 2017 onwards, Aadhar cards will be mandatory for getting crop insurance under PMFBY, which might solve the problem of double insurance.

**(ii) Poor capacity of insurance companies**

Interviews with various stakeholders, including agriculture department officials, indicate that insurance companies lack manpower and infrastructure in rural areas. Insurance companies, especially private companies, have no functional office in tehsils and no agents are deployed at the block level, despite provision for it under PMFBY. In Haryana, it seems that one private insurance company has only five to six employees to manage crop insurance-related issues at the state level.

An insurance company official, on the condition of anonymity, said that for the districts considered safe (with low crop-loss probability), insurance companies engage very heavily in marketing and lobby with local bank officials to increase insurance coverage. However, in districts where crop loss probability is high (because of adverse weather forecast etc.), insurance companies rarely make any efforts to increase insurance coverage.

### **(iii) Farmers not provided policy documents: No direct linkage with insurance companies**

Farmers have no direct connection with insurance companies. Insured farmers receive no insurance policy document or receipt. Farmers usually are not even aware if their premiums have been deducted and crops insured. Premium deduction by banks without informing the farmer is a huge concern. In fact, most farmers would like the bank to take consent from them before deducting the insurance premium.

### **(iv) Lack of coordination and non-existent grievance redressal mechanism**

There seems to be a clear lack of coordination between banks, insurance companies and nodal government departments (mainly the Agriculture Department). For instance, several news agencies have reported a mismatch in the premium amount record between banks and insurance companies in Haryana. Banks deducted a premium of Rs 184 crore from 6.96 lakh farmers' accounts in Haryana; however, insurance company records show that they have received only Rs 121 crore.<sup>4</sup>

There is also poor coordination regarding grievance redressal. Whom should a farmer approach in the case of wrong premium deduction, non-payment of claim or fake crop-cutting experiments? Currently, farmers rarely meet agents of insurance companies and other than deducting premiums, banks do not take any responsibility. Further, the government department's role in the case of dispute between farmer, bank and the insurance company is unclear.

Every insurance company was to put in place a grievance redressal system including farmers helpline. But these systems are non-existent at the local level. Currently, it is unlikely that the majority of farmers will be able to file complaints if they have grievances.

A clear nodal officer and agency for conflict resolution is very important to establish and communicated to farmers.

### **(v) Loopholes in assessment of crop loss**

A proper assessment of crop loss is the foundation of a fair and just crop insurance scheme. To ensure this, the following conditions have been made mandatory for states and UTs:

- a) States have to conduct requisite number of crop cutting experiments (CCEs) at the level of notified insurance unit area;
- b) CCE-based yield data will be submitted to insurance company within the prescribed time limit. The notified insurance unit area is the village/village panchayat or any other equivalent unit for major crops. For other crops it may be a unit of size above the level of village/village panchayat. The number of CCEs to be carried out is as follows:

S. no	Level of insurance unit of CCEs	Minimum sample size
1	District	24
2	Taluka/tehsil/block	16
3	Mandal/phirka/revenue circle/hobli or any other equivalent unit	10
4	Village/village panchayat	4 for major crops and 8 for other crops

Source: Operational Guidelines, Pradhan Mantri Fasal Bima Yojana, Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture and Farmer Welfare, Government of India

States also were to digitize the CCE process, including geo-coding, stamping of date and time and furnish photographs (of the CCE plot and CCE activity). If external agencies are used for conducting the CCEs, it should be given only to the registered 'professional' agencies, with adequate experience in agricultural field activities and yield estimation.

On paper, the above guidelines look impressive. However, CSE researchers found major loopholes during implementation.

(a) Number of crop-cutting experiments: Only four CCEs per major crop per village/village panchayat doesn't capture the scale and diversity of crop losses. In fact, this number is too small a number to capture even the 'average' loss. This is an issue of major concern to farmers. Farmers very strongly believe that the loss figures do not reflect the actual losses and hence they are not adequately compensated. For example, if in a village of, say, 600 farmers, even if the crops of, say, 200 farmers are completely destroyed, if the affected fields don't fall in the selected four samples in the village, no one in the village will get any claim.

(b) Bogus crop-cutting experiments: District/block-level agricultural department officials do not conduct CCEs and do the formalities on paper in many cases. This is also because there is a shortage of competent labour in government offices to conduct CCEs. In Haryana, Agriculture Development officers went on strike to protest against the burden on them to conduct massive numbers of CCEs. CSE researchers were able to document a few cases of false CCEs during their survey:

- During interviews with farmers of Kohla village, Sonapat, Haryana, CSE were informed that no CCE was conducted by state officials in their village. There were losses in paddy fields of many farmers, but not a single farmer would get any claim in this village because officials did not come to village and their CCE record does not reflect losses.
- In Bundi district, Rajasthan, CCEs for soya bean crop during kharif 2016 have not been conducted by the government officials, as revealed by the RTI.<sup>5</sup> Under such circumstances, the question of giving any claim to affected farmers does not arise.
- AIC has already paid the claim of 25 per cent of expected crop loss for flood-affected paddy in Ghazipur, Uttar Pradesh, as per the survey under mid-season adversity in kharif 2016. However, later CCE data submitted by government officials was completely incorrect as it did not reflect any losses.
- An insurance company official on the condition of anonymity said that agriculture officials in drought-hit Tamil Nadu conducted CCEs at the block or district level instead of the revenue village level for kharif 2016. There was consequently a great deal of confusion and delay in disbursing claim payments.
- An insurance company official working in Haryana informed CSE researchers, on the condition of anonymity, that in a specific district of Haryana approximately 3,500 CCEs were to be carried out in all the villages, but only around 40–50 per cent have been conducted on the ground. For example, government officials were to carry out about 2,200 CCEs for paddy but only about 1,600 were done. The insurance company official cites the problem of manpower crunch in conducting CCEs. During the peak crop harvesting period of 10–12 days, 200–300 CCEs are to be carried out every day in each district. This requires huge manpower, which is not available. Similar reports have been received from states such as Uttar Pradesh and Rajasthan also.
- Most farmers use combine harvest machines to harvest paddy and wheat. Government officials are not able to conduct CCEs as per the CCE guidelines as machine harvesting preempts the selection of a crop sample in an experimental plot.

(c) Lack of trained outsourced agencies: Though PMFBY allows outsourcing of CCEs to 'professional' agencies, CSE's researchers found that expertise outside the government is fairly limited. In interviews with insurance company officials and district Agriculture Department officials, it was observed that insurance companies hired personnel on contract for the short term to oversee CCEs. Most of the hired personnel were undergraduate students or 12<sup>th</sup> pass, with no training or experience in CCEs.

(d) Scope for corruption: There is huge scope of corruption during the implementation of the PMFBY like the previous insurance schemes. Tellingly, the Comptroller and Auditor General of India also found irregularities and corruption in the previous crop insurance schemes.<sup>6</sup>

As claim amounts depends on CCE results, there is a huge probability of corruption if transparency is not maintained. There is a chance that insurance companies may bribe the government officials at the district or block level to show lower crop losses to minimize claims. An insurance company official and an agricultural department official on the condition

of anonymity said—though CSE could not confirm this—that a specific private insurance company in Rajasthan had in previous years offered bribes to local-level officials to manipulate CCE data. Similarly, an official said that CCE data in some parts of Maharashtra seemed manipulated for kharif 2016 as very little claim was paid by a specific insurance company despite significant crop losses, .

The fact is that auditing and multi-level checking of CCE data, which is essential to ensure the ‘sanctity and credibility’ of CCEs, is missing. It is important that local people are involved during CCEs to improve transparency of the process.

(e) Innovative technology usage: PMFBY encourages the use of satellite, remote sensing technology and drones to improve the speed and reliability of the CCEs. Unfortunately, none of these technologies was used during kharif 2016.

The CCE application, developed by the National Remote Sensing Centre, meant for recording geo-coordinates, uploading CCEs photos etc. was also not utilized properly by officials in many states for reasons such as absence of Internet network and no smartphone with officials. Ground staff in many states like UP lacked technologies (smartphone with CCE app) to record CCE-related data. CCEs have been captured partly on mobile only in a few states such as Karnataka, Odisha, Chhattisgarh and Haryana. The remaining states are still in the process of purchasing smartphones etc. to be used for capturing CCE. Further, photographs of CCEs have been uploaded partially at the crop insurance portal only by one or two states for kharif 2016.

**Overall, there are too many loopholes in the CCEs. Unless they are fixed, crop insurance will not be able to help farmers get their legitimate claims.**

#### **(vi) Inadequate and delayed claim payment to farmers**

(a) Non-payment for localized calamity: CSE came across cases where the insurance company did not investigate losses due to localized calamity and therefore did not pay for the losses. Despite repeated reminders for inundation to the Oriental Bank of Commerce by paddy farmers of Brahmanwas, Ghamar and Makraulikalan villages of Rohtak district of Haryana, after 48 hours of the calamity, the insurance company had not surveyed the fields. As a result, farmers in these villages did not get any claim even after approaching the bank, government officials and insurance company.

(b) Huge delay in payment of claims: For kharif 2016, the claim payment to farmers was inordinately delayed. The payment was to be made within three weeks from 31 January 2017—the date of receiving CCE yield data by insurance companies—but in April 2017, claims for kharif 2016 were not paid or were partly paid in 14 out of 21 states.

**Many insurance companies cited delay in receiving the state and Central government subsidies as the main reason for delay in reimbursing claims. However, CSE research shows that claim was delayed in even states where subsidy was already given. As of April 2017, only 32 per cent of the claim reported was paid by insurance companies.**

#### **(vii) Very high actuarial premium rates: Insurance companies charged very high actuarial premium rates during kharif 2016**

(a) Very high all-India average actuarial premium rate: During kharif 2016, the all-India actuarial premium rate was approximately 12.6 per cent. To assess how high the premium rate for kharif 2016 is, CSE collected data on actuarial premium rates for the National Agriculture Insurance Scheme (NAIS), Modified National Agriculture Insurance Scheme (MNAIS) and Weather Based Crop Insurance Scheme (WBCIS). The premium rates were estimated for 2011 onwards to reflect similarity in weather-related risk profiles.

The average actuarial premium rates under MNAIS, WBCIS and PMFBY as calculated by CSE for the kharif season are given in *Table 8: All-India average actuarial premium rates under different insurance schemes*. As can be seen in Table 8, **the all-India average actuarial premium rate during kharif 2016 under PMFBY was the highest.**

(b) Very high actuarial premium rates in some states and regions: Insurance companies have charged much higher actuarial premium rates in some states and regions. For example, farmer activists allege that in Madhya Pradesh premium rates of up to 40 per cent, in Rajasthan up to 80 per cent and in Gujarat up to 40 per cent or even more was charged, depending on the crop and region.

Data published by media in Madhya Pradesh indicates that high premium rates were charged on crops in some districts (see *Table 9: Actuarial premium rate charged in districts of Madhya Pradesh for different crops*)

The average actuarial rate in Gujarat during kharif 2016 was 20.5 per cent, in Rajasthan 19.9 per cent and in Maharashtra 18.9 per cent (see *Table 10: Premium rates and profits to companies*).

**Table 7: Non-payment of claims**

State/UT	Claims reported (in Rs crore)	Claims paid (in Rs crore)	Percentage of claim paid (per cent)
Andhra Pradesh	1.0	0.3	28.31
Bihar	231.1	0.0	0.00
Chhattisgarh	86.8	11.0	12.67
Goa	0.0	0.0	0.00
Gujarat	324.6	0.0	0.00
Haryana	213.9	4.8	2.25
Himachal Pradesh	1.9	1.4	70.23
Jharkhand	0.0	0.0	n/a
Karnataka	204.8	204.8	100.00
Madhya Pradesh	1594.0	52.7	3.30
Maharashtra	1693.1	1266.7	74.82
Manipur	2.0	0.0	0.00
Meghalaya	0.0	0.0	n/a
Odisha	108.4	0.0	0.00
Rajasthan	1016.0	0.0	0.00
Tamil Nadu	0.0	0.0	0.00
Telangana	48.2	0.0	0.00
Tripura	0.0	0.0	n/a
Uttar Pradesh	398.2	389.9	97.93
Uttarakhand	3.3	3.2	99.37
West Bengal	34.8	0.0	0.03
<b>TOTAL</b>	<b>5962.1</b>	<b>1934.8</b>	<b>32.45</b>

Source: Ministry of Agriculture and Farmers Welfare, April 2017

**Table 8: All-India average actuarial premium rates under different insurance schemes**

Year	Average actuarial premium rate under NAIS (per cent)	Average actuarial premium rate under MNAIS (per cent)	Average actuarial premium rate under WBCIS (per cent)	Average actuarial premium rate under PMFBY (per cent)
2011	3.3	9	9.9	
2012	3.6	11.5	10.1	
2013	3.9	11.2	10.1	
2014	3.7	9.9	11.8	
2015	4	Data not available	11.6	
2016			11.6	<b>12.55</b>

Source: Estimated by CSE from data collected on different schemes from AIC and Ministry of Agriculture



**Table 9: Actuarial premium rate charged in districts of Madhya Pradesh for different crops**

District of MP	Crop	Actuarial rate (per cent)
Umariya	Tuar	40
Ujjain	Tuar	28
Agar Malwa	Gram	35
Shahdol	Tuar	22
Anuppur	Soya bean	20
Anuppur	Alsi	28
Hoshangabad	Paddy	26
Betul	Soya bean	21
Balaghat	Gram	30
Narsinghpur	Soya bean	25

Source: *Saaptahik Kisan Duniya* (RNI-MPHIN/2007/21488), Year 10, Issue 50, Bhopal, 4–20 December 2016

**Table 10: Premium rates and profits to companies in kharif 2016**

State/UT	No. of farmers insured (in '000)	Area insured (in lakh ha)	Sum insured (in Rs crore)	Gross premium (in Rs crore)	Actuarial premium rate (per cent)	Claims reported (in Rs crore)	No of farmers benefitted (in '000)	Percentage of farmers benefitted (per cent)	*Profits to companies (in Rs crore)
Andhra Pradesh	863.6	9.1	5,081	435.4	8.6	1.0	0.52	0.1	434.4
Bihar	1,484.3	13.1	6,526	1,120.4	17.2	231.1	57.98	3.9	889.2
Chhattisgarh	1,404.2	22.9	6,968	285.7	4.1	86.8	12.81	0.9	198.9
Goa	0.7	0.0	6	0.1	1.3	0.0	0.32	43.7	0.0
Gujarat	1,842.4	25.7	1,1249	2,305.1	20.5	324.6	125.69	6.8	1,980.5
Haryana	731.4	12.0	7,073	265.9	3.8	213.9	100.35	13.7	52.0
Himachal Pradesh	111.5	0.4	253	3.0	1.2	1.9	4.93	4.4	1.0
Jharkhand	828.3	3.5	1,891	265.3	14.0	0.0	0.00	0.0	265.3
Karnataka	1,555.6	13.1	6,035	858.2	14.2	204.8	136.80	8.8	653.4
Madhya Pradesh	3,779.3	70.5	19,046	2,834.1	14.9	1,594.0	684.27	18.1	1,240.1
Maharashtra	10,940.6	66.8	20,944	3,948.2	18.9	1,693.1	1639.50	15.0	2,255.2
Manipur	8.4	0.1	37	3.6	9.7	2.0	8.35	99.9	1.6
Meghalaya	0.1	0.0	0	0.0	10.4	0.0	0.00	0.0	0.0
Odisha	1,764.3	12.6	6,889	532.6	7.7	108.4	154.85	8.8	424.2
Rajasthan	6,086.7	73.6	9,827	1,959.5	19.9	1,016.0	640.21	10.5	943.5
Tamil Nadu	16.1	0.3	211	10.2	4.8	0.0	0.00	0.0	10.2
Telangana	596.4	5.0	3,087	169.5	5.5	48.2	73.90	12.4	121.3
Tripura	1.9	0.0	4	0.1	1.4	0.0	0.00	0.0	0.1
Uttar Pradesh	3,389.5	30.6	12,572	615.6	4.9	398.2	759.55	22.4	217.4
Uttarakhand	129.4	0.8	520	5.8	1.1	3.3	14.06	10.9	2.6
West Bengal	3,101.0	15.8	8,231	273.0	3.3	34.8	0.00	0.0	238.2
<b>TOTAL</b>	<b>38,635.5</b>	<b>375.8</b>	<b>1,26,450</b>	<b>15,891.1</b>	<b>12.6</b>	<b>5,962.1</b>	<b>4,414.09</b>	<b>11.4</b>	<b>9,929.0</b>

\*Profits calculation does not include administrative and marketing charges and taxes.

Source: Ministry of Agriculture and Farmers Welfare, April 2017

(c) Massive profits to companies: Data released by the Insurance Regulatory and Development Authority of India (IRDAI) indicates that PMFBY played a significant role in the growth of non-life insurance industry in the financial year 2016–17.

The gross direct premium of general insurance companies grew by 32 per cent, from Rs 96,376 crore in 2015–16 to Rs 1.27 lakh crore in 2016–17. Nearly half of this growth came from crop insurance.<sup>7</sup>

But the most important financial inference is that insurance companies made huge profits on crop insurance during kharif 2016. CSE analysis indicates that during kharif 2016, companies made close to Rs 10,000 crore as ‘gross profits’. This is not actual gross profit, as administrative and marketing charges have to be subtracted from this amount.

Under PMFBY, if premium-to-claim ratio at the national level in a crop season exceeds 1:3.5, or percentage of claims to sum insured exceeds 35 per cent, whichever is higher, the government will provide protection to insurance companies. The losses exceeding the aforementioned level in the crop season would be met by equal contribution of the Central government and the concerned state/UT government. However, there is no mechanism to share profits. Even if companies make huge profits, there is no mechanism through which certain parts of the profits can be given back to the farmers or the Central or state government. So, under PMFBY, profit is private but liability is public.

*Annexure 4* details company-wise and state-wise information related to PMFBY during kharif 2016.

## How beneficial is PMFBY in vulnerable regions?

Vulnerable regions are those that frequently face natural calamities, such as drought and flood. Bundelkhand and Marathwada are examples. Farmers in vulnerable regions face added challenges—such as successive crop losses, large debt and higher proportion of loan default—than farmers from other regions. They hence need insurance most desperately as the chances of crop failure is high.

In view of this, CSE examines by means of case studies whether PMFBY in its current form is able to address the insurance needs of farmers in vulnerable regions.

### Case study: Moong crop in Ashti Taluka, Beed district, Marathwada, Maharashtra

Beed district in Maharashtra has faced frequent droughts in last few years. Moong is an important crop for Ashti taluka in the district. CSE calculated the claim amount a farmer will receive for different levels of crop losses under PMFBY.

As per the Maharashtra State Government Kharif 2016 Notification on PMFBY, the following are the parameters for moong crop in Beed district:

- Indemnity level: 70 per cent
- Threshold yield: 313 kg/ha
- Sum insured: Rs 18,000/ha
- Premium paid by farmer: Rs 360/ha

It is to be noted that as per the Maharashtra State Agriculture Price Commission, the cost of cultivation of moong in 2015–16 was Rs 34,147/ha. So, the sum insured under PMFBY was slightly more than 50 per cent of the cost of cultivation.

Similarly, the threshold yield under the Maharashtra State Kharif 2016 Notification is lower than the one estimated by CSE. According to data obtained from the officials of the Agricultural Department of Beed district, the average yield for the moong crop for the past seven years, excluding two calamity years, was 672 kg/ha. The threshold yield at 70 per cent indemnity levels was 470 kg/ha. This is 50 per cent higher than the threshold yield mentioned in the Maharashtra State Kharif 2016 Notification.

**The sum insured is hence 50 per cent lower than the cost of cultivation and threshold yield is 50 per cent lower than the actual threshold yield.**

**Table 11: Average yield for moong crop in Beed, Maharashtra**

Year	Average yield of moong (kg/ha)	Remarks
2009	801.7	
2010	1,153	Highest yield in past seven years
2011	664.2	
2012	84	Drought year
2013	571.7	
2014	167.5	Drought year
2015	13	Drought year
<b>Average yield</b>	<b>672</b>	<b>Excluding data for 2012 and 2015</b>
<b>Threshold yield</b>	<b>470</b>	<b>At 70 per cent indemnity level</b>

Source: Department of Agriculture, Government of Maharashtra, Beed district, Maharashtra\*

If we assume that the yield obtained by farmer is 700 kg/ha—the average yield—the claim amount received by a farmer of moong crop at different levels of crop loss is depicted in *Table 12: Claims at different levels of crop loss*. Claim is calculated as  $[(\text{Threshold yield} - \text{actual yield})/\text{Threshold yield}] \times \text{sum insured}$ .

**Table 12: Claims at different levels of crop loss**

Parameters	As per Maharashtra State Kharif 2016 Notification on PMFBY	Remarks
Threshold yield in kg per ha (at 70 per cent indemnity level)	313	This is 50 per cent lower than the threshold yield estimated by CSE
Sum insured (Rs/ha)	18,000	50 per cent lower than the cost of cultivation
Cost of cultivation (Rs/ha)	34,147	Maharashtra State Agriculture Price Commission for 2015–16
Premium paid by farmer (Rs/ha)	360	
Claim received at 50 per cent crop loss (Rs/ha)	No claim as average yield is more than threshold yield	Even if the farmer loses half of his crop, he will not receive any compensation
Claim received at 60 per cent crop loss (Rs/ha)	1,898	Claim amount is 5.6 per cent of the cost of production
Claim received at 70 per cent crop loss (Rs/ha)	5,923	Claim amount is 17.3 per cent of the cost of production
Claim received at 100 per cent crop loss	18,000	This is 50 per cent of the cost of production

Source: Estimated by CSE

This case study clearly shows that factors like low indemnity levels, low threshold yields and low sum insured make PMFBY a poor scheme to safeguard farmers of vulnerable regions against extreme weather events. As shown in Table 12, even if a farmer loses 70 per cent of his crop, his claim amount can only compensate 17 per cent of his cost of production. Even if the sum insured is made equal to the cost of production, farmers will receive very low insurance claims because of low indemnity levels and historical average yields.

The concept of threshold yield, based on the average yield of the previous seven years excluding two state-declared calamity years, does not provide adequate protection to farmers in vulnerable regions. This is because, first, these regions generally experience frequent calamity years. So, even if the number of calamity years is more than two in the past seven years, only the worst two years are taken into account. This reduces the average yield significantly. On top of this, the lower indemnity levels make the threshold yield even lower, ensuring very little compensation to farmers.

To make PMFBY relevant to the farmers of vulnerable regions, the formula for calculating average yields will have to change to take into account all the calamity years and the indemnity levels will have to be increased to 90 per cent. Only then can farmers hope to receive reasonable compensation from insurance companies.

The other reason why PMFBY is not helping farmers is that most farmers in distressed regions like Bundelkhand have become loan defaulters. Insurance is valid on new-crop loans for a fixed period of one year. If a farmer defaults on a loan, he cannot get another loan for the next round of cropping and hence cannot avail compulsory insurance. Because of successive crop failures, loan repayment rate in such regions is lower than even 5 per cent.<sup>8</sup> So farmers who need crop insurance can't get it. This is a vicious cycle that needs to be broken by making PMFBY compulsory for even those who default on loans. If a farmer cannot avail even the minimum premium amount, the state can provide a subsidy for that as well. This will allow farmers to limit and slowly come out of debt.

Making insurance mandatory even for loan defaulters, increasing indemnity levels and scale of finance and improving the estimation of average yield will thus make PMFBY more relevant to farmers in vulnerable regions.

## Why are actuarial premium rates in Bihar high despite low historical claims?

CSE analysis shows that insurance companies have charged relatively higher actuarial premium rate in Bihar as compared to other states, even though the claims have been historically low. The all-India average actuarial premium rates have been in the range of 9–11.5 per cent only under MNAIS. But in Bihar, the actuarial premium rates charged in MNAIS during kharif 2011 to kharif 2013 have been in the range of 18.5–23.1 per cent.

Actuarial premium rates in Bihar have been higher despite the fact that claims percentage paid as per cent of gross premium in Bihar have been relatively low as compared to other states, indicating lower risk profile.

Similar has been the case during kharif, 2016 under PMFBY. Insurance companies have charged a high premium rate of 17 per cent in Bihar compared to the all-India average actuarial premium rate of 12.6 per cent. This makes the risk profile of Bihar similar to states such as Maharashtra.

Scheme, year and season	Sum insured (in lakh rupees)	Gross premium (in lakh rupees)	Actuarial premium rate (%)	Claim (in lakh rupees)	Claim as % of gross premium
<b>MNAIS kharif 2011</b>					
Bihar	9,729.4	2,224.3	22.9	440.9	19.8
All India	134,588.5	12,178.9	9.0	9,609.9	78.9
<b>MNAIS kharif 2012</b>					
Bihar	85,567.4	19,746.2	23.1	4,766.3	24.1
All India	4,89,694.0	56,435.8	11.5	62,345.6	110.5
<b>MNAIS kharif 2013</b>					
Bihar	97,879.7	18,109.6	18.5	14,620.3	80.7
All India	5,82,583.4	65,038.1	11.2	85,679.3	131.7
<b>PMFBY kharif 2016</b>					
Bihar	6,52,600.0	1,12,040.0	17.2	23,110.0	20.6
All India	1,26,45,046.4	15,89,109.8	12.6	5,96,207.4	37.5

Source: Ministry of Agriculture and Farmers Welfare, GoI

Note: MNAIS data for Kharif 2014 and 2015 was not available.

# CHAPTER 4

## Recommendations

Kharif 2016 was the first season when PMFBY was implemented. This is a learning period. Challenges during kharif 2016 should be internalized and addressed to further improve this scheme.

- ❖ **Farmer coverage:** Coverage of tenant and sharecropper farmers will increase if respective state governments legalize sharecropping and make provisions for tenant farmers less burdensome.
- ❖ **Crop coverage:** All the crops should be covered under crop insurance. Diversification of crops should be promoted.
- ❖ **Lack of yield data:** 'Potential yield' should be used for crops for which historical average yield data is not available.
- ❖ **Risk coverage:** Damage caused by wild animals, fire, cold waves and frost to crops should also be considered at the individual level. Damage caused by hailstorms etc. should also be included in the category of post-harvest losses.
- ❖ **Inform farmers and ask for their consent before deducting premium:** Ideally, farmers' consent must be taken before deducting his/her crop insurance premium. They must be given a proper insurance policy document, with details such as name of insurance company, sum insured, premium paid, insurance terms and conditions, insured crop details, notified insured area, how to inform about different types of crop losses, details of terms and conditions for post-harvest losses, localized calamity, prevented sowing and claim settlement procedures.
- ❖ **Involvement of Panchayati Raj Institutions:** Concerns regarding the ability of a state to conduct reliable CCEs at the village or village-panchayat level need to be effectively addressed by involving Panchayati Raj Institutions and/or farmers in different stages of PMFBY implementation. All the data and documentation should be publicly available.
- ❖ **Insurance unit:** The insurance unit (IU) must be reduced over a period of time. In any case, it should not be more than village level. Provision made under PMFBY regarding the digitalization of land records and maps should be addressed on a priority basis by the state governments to ensure effective implementation of the scheme and bring the IU to the farm level. If the IU cannot be at the individual level and is kept at village panchayat level, premium should also be collected at the village panchayat level—not the individual level. **Group insurance should be promoted.**
- ❖ **Notification of indemnity level, threshold yield:** Indemnity level under PMFBY should be kept at a minimum of 80 per cent and 90 per cent (as was under MNAIS) to increase the threshold yield. For vulnerable regions, potential yield should be considered instead of average yield for calculating threshold yield. If the government wants to go with the historical average yield, it should consider the average of the best three years of the preceding 10-year average yield.<sup>1</sup>
- ❖ **Sum insured:** Sum insured should not be less than scale of finance and/or cost of production.<sup>2</sup> There are also suggestions that the sum insured should be equivalent to expected crop yield value rather than based on cost of production and cost of cultivation.<sup>3</sup> The state of Punjab had rejected the previous crop insurance schemes offered by the Centre citing these reservations.<sup>4</sup>
- ❖ **Group insurance:** An incentive of further premium subsidy for groups (group of small farmers, group of women farmers etc.) would contribute to more farmers opting for insurance and pooling risks.

- ❖ **Seasonality discipline:** Banks and insurance companies should ensure that the timelines given under PMFBY are strictly adhered to. Similarly, farmers should also maintain discipline with loans. It is noted that, in general, farmers withdraw their full annual joint limit of loan in the beginning of the year and get insurance cover only for the kharif season. The number of farmers insured for rabi crops is consequently much smaller than for kharif. Farmers should be encouraged to take insurance for both seasons.
- ❖ **Assessment of crop loss:**
  - Capacity building of state governments simultaneous with standard protocol development for technology usage should be a priority area. Several states have Remote Sensing Applications Centres—strengthening their infrastructure and mandating them for human resource development in the concerned state needs urgent action.
  - Actual crop yield estimation by CCEs at the local level is susceptible to manipulation at the ground level as insurance companies, especially private companies that are business and profit-driven, are now providing insurance. Therefore, an expert committee involving Panchayati Raj Institutions and/or farmers must also be part of the loss-assessment procedure during CCEs. Such transparency alone can change the perception among farmers significantly. Currently, officials do not actually conduct CCEs and in many cases farmers and Panchayati Raj Institutions are oblivious about it.
  - Officials conducting the CCEs might not follow standard procedures. Auditing and multi-level checking of CCE data is essential to ensure the 'sanctity and credibility' of CCEs.
  - After enough successful pilot projects incorporating innovative technologies, such as remote sensing, drone and online transmission of data, states and insurance companies should start using these technologies in estimating the crop yields at the IU level to address concerns of reliability of CCEs as well as accuracy and speed of conducting them.
- ❖ **Make crop insurance related data publicly available:** Data, specifically related to CCEs, threshold yield, sum insured etc., must be available in the public domain and shared openly with farmers to win their confidence and increase transparency. Currently the Central government and state governments rarely share this data with farmers and others.
- ❖ **Use of innovative technologies to rationalize CCEs and remove area discrepancies in coverage**
  - CCEs have primarily been dependent on manual procedures to estimate losses. While the current incorporation of technology is a positive step, it is limited to mono-crop farms. Use of technology in sampling also needs technical improvement.
  - The use of remote sensing/satellite imagery and digitization of land records should be urgently promoted to minimize area discrepancies.
  - While it is good that GPS and mobile phone usage has been recognized as a potential medium to verify the integrity of CCEs, specific programmes to develop protocol and human resource development need to be identified.
  - CCEs sampling selection should be based on consensus of all stakeholders, especially affected farmers of an area.
  - CCEs have to be conducted in insurance units in a more effective and transparent manner. There is ample scope to improve the existing CCEs through technological interventions such as automation, geo-location, tamper proofing and auditing.
  - It is desirable to create an independent agency for crop surveillance and assessment in each state. CCEs quality should be monitored through random checks.
- ❖ **Claim related to prevented sowing:** It was found that there was no occasion when claims due to prevented sowing and post-harvest losses had been paid under MNAIS.<sup>5</sup> Hence, it is recommended that the clause addressing prevented sowing and post-harvest losses be implemented appropriately by issuing state notifications prior to sowing.



❖ **Making claims payment fast and transparent:**

- There should be timely disbursement of premium subsidy from the Central government and concerned state/ Union Territory to insurance companies to ensure that claims are settled on time in the event of a calamity.
- There should be strict compliance of timelines with regard to the process of claim settlement to provide adequate and timely compensation to farmers.
- Farmers, not banks, should have the first right over the insurance claim amount.
- The list of beneficiaries of crop insurance should also be made available at the village panchayat and bank noticeboards within a strictly stipulated time period.
- The crop insurance portal website must be updated regularly and appropriately.
- Farmers in distressed regions such as Bundelkhand and Marathwada should be given special attention so that they receive adequate and timely claims along with other relief.

❖ **Capacity building of stakeholders:** A comprehensive programme of capacity building of concerned officials, including state government functionaries, insurers and Central government agencies associated with crop insurance schemes, would be necessary for successful implementation of PMFBY.

❖ **Scheme monitoring and grievance redressal mechanism:**

- Actual implementation of PMFBY should be monitored so that shortcomings can be identified and improved periodically.
- The grievance redressal system to address farmers complaints is either non-existent or too complicated.
- Dedicated common toll-free numbers should be channelized to address all queries, concerns and grievances of farmers with respect to crop insurance. This toll-free number should serve as a one-stop solution for crop insurance.
- Farmers should be able to avail of a single window that is accountable to them for all aspects of the scheme.
- Provision of social audit has been removed completely from PMFBY, even though MNAIS had provision for it. Provision of social audit should be established and strictly implemented under PMFBY.
- A very small percentage of insurance beneficiaries (1–5 per cent) are crosschecked by insurance companies and/or state-/national-level monitoring committee. This process of monitoring needs to be strengthened through better coverage of insurance beneficiaries and strict action needs to be taken to make implementation more effective.
- Corruption cases by insurance companies, such as ghost beneficiaries to get more government subsidy and manipulation of CCE data, should be dealt with strictly.<sup>6</sup>

❖ **Develop agriculture intelligence information system:**

- An agriculture intelligence information system should work as a platform to collect farm-level data on all parameters that can help estimate crop loss smoothly, accurately, quickly and transparently. Utmost importance should be given to finish this task on an urgent basis.
- Many states have digitized cadastral maps.<sup>7</sup> States that have not done so should be motivated to do the same. Crop insurance should be integrated with the maps.
- Accessibility to the crop insurance portal would need to be strengthened as the digital literacy of a large sections of farmers is poor. Other infrastructural challenges, such as electricity, Internet availability and affordability, will be a serious concern for a large section of farmers and needs to be factored in.
- A definite timeline for integration of crop insurance, with digitized land records, real-time weather-index data, yield-assessment data of crops, a robust IT-enabled public-grievance settlement mechanism and an interactive forum, should be made.

**Annexure 1: Comparison of provisions of PMFBY with NAIS and MNAIS**

No	Feature	NAIS [1999]	MNAIS [2010]	PMFBY [2016]
1	<b>Premium rate</b>	Low (1.5–3.5 per cent) and no premium subsidy for horticulture/commercial	High (up to 15 per cent), premium subsidy for all crops	Almost equal to NAIS (1.5–5 per cent), premium subsidy for all crops
2	<b>Insurance unit</b>	Village panchayat, block and taluka	Village/village panchayat for major crops	Village/village panchayat for major crops
3	<b>Indemnity level</b>	60, 80, 90 per cent	80, 90 per cent	70, 80, 90 per cent
4	<b>Sum insured</b>	Loan amount/value of TY/ 150% value of AY	Sanctioned credit limit/value of TY / 150% value of AY	Equal to scale of finance
5	<b>One season-one premium</b>	Yes	No	Yes
6	<b>Insurance amount cover</b>	Full	Capped	Full
7	<b>On-account payment</b>	No	Yes	Yes
8	<b>Localized risk coverage</b>	No	Hailstorm, landslide	Hailstorm, landslide, inundation
9	<b>Post-harvest losses coverage</b>	No	Coastal areas—for cyclonic rain	All India—for cyclonic + unseasonal rain
10	<b>Prevented sowing coverage</b>	No	Yes	Yes
11	<b>Use of technology</b> (for quicker settlement of claims)	No	Intended	Mandatory
12	<b>Claim liability</b>	-	Government will underwrite losses beyond 500 per cent of seasonal gross premium	Government will underwrite losses beyond 350 per cent of seasonal gross premium
13	<b>Minimum sample size for CCE</b>	Not specified	Same in PMFBY and MNAIS	Same in PMFBY and MNAIS
14	<b>Monitoring of scheme</b>	-	Provision for social audit and sending list of beneficiaries to gram panchayat, 1–5 per cent of beneficiary to be crosschecked	Social audit provision removed completely, no beneficiary list will be sent to gram panchayat, 1–5 per cent of beneficiary to be crosschecked
15	<b>Crop insurance app and portal</b>	No	No	Yes
16	<b>Insurance companies</b>	Only government	Government and private both	Government and private both
17	<b>Criteria for performance assessment of insurance companies</b>	No	1) Claim-to-premium ratio 2) Number of farmers benefited to farmers insured ratio 3) Percentage of non-loanee farmers to total number of insured farmers	1) Percentage of actual area insured to total cropped area in the allocated districts/areas 2) Percentage of area insured of non-loanee farmers to total area insured 3) Percentage of claims paid to total admissible claims within the stipulated time 4) Percentage of own-retention of risk insured (SI) to total risk insured
18	<b>Toll-free number for grievances redressal</b>	No	No	Yes, at the insurance company office
19	<b>Awareness</b>	No	No	Yes (target to double coverage to 50 per cent)

## Annexure 2: Participants in round-table discussion on PMFBY organized by CSE on 10 February 2017

Participant name	Organization	State
Brij Mohan Sharma	Farmer activist, former member, Group of Directors, Rajasthan Rajya Sahkari Sangh, Jaipur	Rajasthan
Rampal Jat	Kisan Mahapanchayat	Rajasthan
Kiran Kumar Vissa	Rythu Swarajya Vedika	Telangana and Andhra Pradesh
Chamarasa Malipatil	Karnataka Rajya Raitha Sangha (KRRS)	Karnataka
Yudhveer Singh	Bhartiya Kisan Union	Uttar Pradesh
Rattan Singh Maan	Haryana Chapter, Bhartiya Kisan Union	Haryana
Vijay Jawandhia	Kisan Co-ordination Committee and founder member of the Shetkari Sanghatana	Maharashtra
Kedar Sirohi	Aam Kisan Union, Madhya Pradesh	Madhya Pradesh
Naresh Sirohi	Ex-advisor, DD Kisan channel	New Delhi
Abhishek Joshi	Public policy and political analyst, New Delhi	New Delhi
Nilachal Acharya	Agriculture and Food Security, Centre for Budget and Governance Accountability, New Delhi	New Delhi
Reshmy Nair	Professor, Administrative Staff College of India (ASCI)	Hyderabad
C.V.Singh	Doaba Paryavaran Samiti	Uttar Pradesh
Harish Chauhan	Flower Growers Association	Himachal Pradesh
Raj Singh Dhaka	Retired official, Department of Agriculture and Farmers Welfare	Haryana
Raghu P.	Land and Livelihood Knowledge Activist Hub, Action Aid, New Delhi	New Delhi
Farmers from Haryana and Uttar Pradesh	Farmers from Haryana and Uttar Pradesh	Uttar Pradesh and Haryana
Umang Jalan	Centre for Science and Environment	New Delhi
Vijeta Rattani	Centre for Science and Environment	New Delhi
Chandra Bhushan	Centre for Science and Environment	New Delhi
Vineet Kumar	Centre for Science and Environment	New Delhi

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**Annexure 3: Company-wise crop insurance coverage for PMFBY during kharif 2016**

Company	Number of farmers insured	Area insured (ha)	Sum insured (in lakh Rs)	Gross premium (including Centre, state and farmers part, in lakh Rs)	Average actuarial premium rates charged by companies (gross premium/sum insured, in per cent)	Market share (in terms of percentage of total premium)
AIC	16,694,324	14,952,992	49,00,640	6,08,655	12.42	38.35
BAJAJ	863,960	950,034	5,62,238	57,759	10.27	3.64
Chola Mandalam	1,215,022	680,689	3,57,532	16,983	4.75	1.07
Future	1,358,904	727,352	4,07,074	18,057	4.44	1.14
HDFC	4,127,783	4,352,793	15,43,061	2,67,983	17.37	16.89
ICICI	2,181,947	2,876,673	12,55,100	1,27,389	10.15	8.03
IFFCO	3,218,474	2,961,746	9,07,140	1,16,130	12.80	7.32
New India	5,811	14,071	4,620	301	6.51	0.02
Reliance	2,853,160	2,833,786	10,91,128	99,469	9.12	6.27
SBI	578,417	475,357	2,29,669	36,526	15.90	2.30
Tata	815,025	627,274	2,92,555	42,203	14.43	2.66
United India	3,750,833	4,905,842	6,14,811	1,35,960	22.11	8.57
Universal Sompo	949,252	859,462	4,03,990	59,495	14.73	3.75
Grand total	38,612,912	37,218,070	1,25,69,560	15,86,908	12.63	100.00

**Annexure 4: Company- and state-wise information regarding PMFBY in kharif 2016**

S. no.	Name of company	State	No. of farmers covered	Farmers premium (in Rs lakh)	State govt. share in premium (in Rs lakh)	Central govt. share in premium (in Rs lakh)	Total premium (in Rs lakh)	Claims payable (in Rs lakh)	Claims paid (in Rs lakh)	No. of farmers benefited
1	Tata AIG	Karnataka	606,300	5,343.94	10,490.59	10,490.59	26,325.11	11,395.92	11,395.92	84,901
		Bihar	209,021	1,862	7,008.49	7,008.49	15,878.98	2,500	0	0
2	IFFCO TOKIO	Maharashtra	20,59,606	7620.15	43,718.94	43,718.94	95,058.02	38,067.24	5,502	4,39,769
		Chhattisgarh	11,24,687	10,355.82	5,214.52	5,214.52	20,784.87	n/a	n/a	n/a
		Himachal Pradesh	34,181	102.25	18.55	18.55	139.36	57.43	n/a	1832
3	SBI GIC	Goa	648	6	0	0	6	3		324
		Odisha	3,12,937	2,467	5,583	5,583	13,632	5,144		22,004
		Bihar	2,64,421	2,116	10,306	10,306	22,728	4,981		57,973
4	Future Generali India Insurance Company Limited	Odisha	6,78,232	4,354.71	5,577.61	5,577.61	15,509.93	Claim under process	Claim under process	Claim under process
		West Bengal	7,19,219	2,826.45	0.72	0.72	2,827.17	Yield data awaiting	Yield data awaiting	Yield Data Awaiting
5	HDFC ERGO	Madhya Pradesh	28,654	230.82	220.47	220.47	671.76	941.26	941.26	16293
		Maharashtra	19,08,726	8,624.15	31,612.76	31,612.76	71,849.67	19,679.14	10,040	5,25,403
6	ICICI Lombard	Andhra Pradesh	4,39,700	6,651.53	5,863.52	5,863.52	18,378.57	86.02	17.15	497
		Haryana	1,91,460	3,175.94	1,349.93	1,349.93	5,875.8	4,507.45	38.77	8,8681
		Madhya Pradesh	8,25,605	10,458.38	37,632.86	37,632.86	8,5724.1	371.05		1,633
		Meghalaya	63	1.04	1.01	1.01	3.05			
		Odisha	3,04,850	3,438.39	3,582.3	3,582.3	10,602.99			
		Tamil Nadu	7,390	274.4	113.08	124.54	512.02	0.16		1
		Uttar Pradesh	4,12,491	2377.12	2026.94	2026.94	6430.99	7,459.15	2,233.05	16,9784
7	AICIL	Andhra Pradesh	4,21,018	5,466.48	9,780.7	9,780.7	25,027.89	1,789.52	10.04	7,402
		Uttar Pradesh	30,28,127	21,234.68	16,159.25	16,159.25	53,553.18	31,831.49	3,1831.49	6,24,909
		Uttarakhand	1,29,386	574.95	2.78	2.78	580.5	325	320.29	14,010
		Himachal Pradesh	77,401	157.42	0	0	157.42	136.36	136.36	3145
		Maharashtra	48,32,160	21,427.21	62,816.36	62,816.36	1,47,059.93	1,02,145.61	83.36	11,54,461
		Manipur	8,366	73.88	142.69	142.69	359.25	195.91		8354
		Gujarat	4,14,997	5,903.58	37,737.21	37,737.21	81,377.99	10.4		464
		Rajasthan	18,62,907	6,097.89	20,539.95	20,539.95	47,177.79	25.7	25.7	494

		Telangana	3,80,140	3,709.94	1,036.8	1,036.8	5,783.54	4,499.96	0	29,405
8	<b>Universal Sampo GIC</b>	Karnataka	9,49,252	10,264.54	24,615.22	24,615.22	59,494.97	1,132.22	1,132.22	16,589
9	<b>CHOLAMS GIC</b>	Bihar	1,25,781	857.18	3,864.59	3,864.59	8,583.86	2,402.22	0	0
		West Bengal	10,89,231	5,053.36	1,671.55	1,671.55	8,396.49			
10	<b>BAJAJ</b>	Bihar	4,95,372	3,646.01	15,529.78	15,529.78	34,705.56	17,989.05		
		Haryana	2,74,562	5,140.32	4,424.72	2,299.39	11,862.26	10,041	142.87	802
		Telangana	2,38,156	2,431.94	4,344.53	4,344.53	11,120.99	4,803.7		

Note: (i) Data hereunder are as provided by the all implementing insurance companies except Reliance General Insurance Company (ii) Data are provisional and as on 28 March 2017

Source: Lok Sabha, Unstarred Question No. 4261, to be answered on the 28 March 2017, Pradhan Mantri Fasal Bima Yojana, Ministry of Agriculture and Farmers Welfare, Department of Agriculture, Cooperation and Farmers Welfare



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7. Actuarial rate is an estimate of the expected value of future loss. Usually the future loss experience is predicted on the basis of historical loss experience and consideration of the risk involved.
8. Threshold yield of notified crops is equal to the historical average yield multiplied by indemnity level.
9. Sum insured is the maximum amount that an insurance company will pay in the event of crop loss.
10. Scale of finance is the finance required for raising a crop per unit cultivated area, i.e. acre or hectare. Scale of Finance for a particular crop in this context is fixed by the District Level Technical Committee (DLTC) every year. It may extend up to the value of the threshold yield of the insured crop at the option of insured farmer.

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