

PERFORMANCE OF PMFBY INSURANCE IN INDIA

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ABSTRACT: Though India has achieved self-sufficiency in food grain production through the advancement of modern technologies the incomes of the farmers have not improved much and unstable because of natural catastrophes and price fluctuations. Farmers primarily face yield risk due to weather variability. The resource poor farmers and landless agricultural labourers who have extremely limited means and resources are vulnerable in the absence of insurance mechanisms. Therefore, crop insurance is needed to address the issue of yield risk in the farm sector. The history of crop insurance in the pre-independence period goes back to the Dashuri tax introduced by the Mughal emperor Akbar. Few schemes were operated from 1920 to 1947 and were discontinued due to financial constraints. After independence, pilot crop insurance schemes were tried during 1972-78. Since then, various schemes like Comprehensive Crop Insurance, Experimental Crop Insurance Scheme, Pilot Scheme on Seed Crop Insurance, National Agricultural Insurance Scheme, Weather-based Crop Insurance Scheme, Modified National Agricultural Insurance Scheme, Other crop-specific insurance schemes, National Crop Insurance Programme were tried till 2016. From 2016, the “Pradhan Mantri Fasal Bima Yojana” crop insurance scheme is in operation. This paper presents the evolution of crop insurance in India and the challenges encountered in each scheme from pre-independence times to the present day. Finally, based on the shortcomings reported and experiences learned, suggestions for effective implementation of the crop insurance schemes are presented.¹ (Paul Mansingh, 15 July 2020)

KEYWORDS: Agricultural Insurance, Crop Insurance, India, Insurance, PMFBY, Risk in agriculture, Weather index insurance.

INTRODUCTION: Agriculture has been the backbone of Indian economy for several centuries. Indian agriculture is characterized by lack of technology, low productivity, under employment, multiplicity of crops, unequal distribution of land, and predominance of small farmers etc. Agricultural production therefore is inherently a risky business and farmers face a variety of weather, pest, disease, input supply and market related risks. Given an uncertain income each year, farmers must worry about their ability to repay debt, to meet overhead costs (e.g., Land rents and taxes) and, in many cases, their ability to meet essential living costs for their families. These same risks are also of concern to agricultural lending institutions. The prevalence of risk in agriculture is not new. Farmers, rural institutions and lenders have, over generations, developed ways of reducing and coping with risk. Although the virtues of these traditional risk management mechanisms are widely recognized, they also have their own limitations. Agriculture in India is highly susceptible to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season.

OBJECTIVES OF THE STUDY:

Adequate insurance facility can make Indian agriculture more productive and Indian farmer’s life more comfortable. Proper insurance coverage helps farmers in initiating new crops in case of crop failure and brings confidence among farmers. This can give a better life to 119 million farmers in India. Therefore, operation of crop insurance schemes and role of government need to be examined. With this objective, we have set the following objectives as core issue of the present paper:

- To give a glimpse of crop insurance in India
- To examine the operational status of national level crop insurance scheme (NAIS)
- To examine the performance of PMFBY Insurance in India. (Pradhan Mantri Fasal Bima Yojana)

- To analyses the general problems of crop insurance in India.

METHODOLOGY:

This paper is descriptive in nature and based on secondary data mostly collected from various brochures and publications of Agriculture Insurance Company of India Ltd., The web site of Agriculture Insurance Company of India Ltd.(www.aicofindia.com) is used. other reports and journals are also used for the purpose. Data collected from secondary sources are tabulated and conclusions are made.

CROP INSURANCE INITIATIVE IN INDIA:

The concept of crop insurance is not very new to India. Over the years it has evolved at irregular intervals but continuously and still growing in terms of scope, methodologies and practices. Though many attempts were made to introduce crop insurance before independence it was not concrete. It is only after independence that the crop insurance policy got a concrete shape when in 1965 the Government of India decided to draw a Crop Insurance Bill and model scheme for crop insurance in order to enable the state to initiate crop insurance. In 1970, the Draft Bill and the Model Scheme were referred to an Expert Committee headed by Dr. Dharm Narain..

FIRST EVER CROP INSURANCE SCHEME-1972: This scheme was based on individual approach. This scheme was implemented in the states of Gujarat, Maharashtra, Tamil Nadu, Andhra Pradesh, Karnataka and West Bengal. It was continued up to 1978-79 and covered only 3110 farmers.

PILOT CROP INSURANCE SCHEME (PCIS) – 1979: Realizing the shortcomings of the first crop insurance programme Professor V. M. Dandekar, often referred to as the “Father of Crop Insurance in India”, suggested an alternate “Homogeneous Area approach” for crop insurance in the mid-seventies. In 1979 the General Insurance Corporation introduced a Pilot Crop Insurance Scheme on Area Approach making state government participation voluntary. The scheme ran till 1984-85 covering 6.27 lakhs farmers for a premium of Rs. 1.97 crores. 13 states participated in the scheme.

COMPREHENSIVE CROP INSURANCE SCHEME (CCIS)-1985: This scheme was introduced from 1st April 1985 by the Government of India and it was based on Homogeneous Area Approach and linked with short-term crop credit, i.e., In this entire period, the Scheme covered Rs. 7.63 crores farmers under an area of Rs.12.76 crores hectares, for a Sum Insured of Rs. 24,949 crores at a premium of Rs. 403.56 crores. CCIS was discontinued from Kharif 1999 and replaced by “National Agriculture Insurance Scheme” (NAIS).

EXPERIMENTAL CROP INSURANCE SCHEME (ECIS) – 1997: During 1997-98 ECIS was introduced in 14 districts of 5 states. The Scheme was similar to CCIS, except that it was meant only for all small / marginal farmers with 100% subsidy on Premium. During its one season, the ECIS covered 4,54,555 farmers for a Sum Insured of Rs. 168.11 crore at a Premium of Rs. 2.84 crore against which the Claims paid were Rs. 37.80 crore. For the purpose of present study, we will discuss three major national level crop insurance schemes.

NATIONAL AGRICULTURAL INSURANCE SCHEME (NAIS) (RASHTRIYA KRISHI BIMA YOJANA)-1999: In the session Rabi 1999 Government of India has launched the NAIS under which comprehensive risk insurance is provided to cover yield losses arising due to non-preventable risks viz-

- a. Natural Fire and Lighting;
- b. Strom, Hailstorm, Cyclone, Typhoon, Tempest, Hurricane, Tornado;
- c. Flood, Inundation, and Landslide;
- d. Drought, Dry Spells;
- e. Pest/Diseases etc.

The NAIS suffers from some serious drawbacks especially if we look at the loss assessment policy under the scheme from farmer's point of view. The scheme operates on "Area Approach" i.e., if the observed seasonal area yield per hectare of the insured crop for the defined insurance unit falls below a specific threshold yield, all insured farmers growing that crop in the defined area will receive the same claim payment. The defined area may be a Gram Panchayat, Mandal, Hobli, Circle, Pirka, Block Taluka etc. Many times, it happens that crops in a particular area of that block get damaged but not in the entire block and a situation may arise that while the farmer face heavy losses, the notified area still has a yield above the threshold level. This makes the farmer ineligible for claim. Secondly, the claim settlement process is very lengthy.

Sr. No.	Year	No. of farmers insured (No in lakh)	Area insured (Ha in lakh)	Sum insured (Rs.in crores)	Farmers' Premium (Rs.in crores)	Gross Premium (Rs.in crores)	Claims Paid (Rs.in crores)	No. of Farmers Benefitted (No in lakh)
1.	1999-00	5.80	7.81	356.41	3.77	5.42	7.69	0.55
2.	2000-01	105.01	163.31	8506.07	178.89	234.52	1281.97	41.62
3.	2001-02	106.52	160.34	8999.97	236.37	291.77	558.29	21.95
4.	2002-03	120.96	195.70	11269.24	312.38	363.97	2012.94	52.24
5.	2003-04	123.92	188.24	11163.62	316.70	347.39	1149.79	38.10
6.	2004-05	162.18	296.17	16944.82	510.58	534.80	1198.92	34.48
7.	2005-06	167.22	277.49	18590.76	529.11	554.77	1424.75	36.68
8.	2006-07	179.12	273.05	21301.58	572.24	610.17	2292.19	45.23
9.	2007-08	184.43	281.42	24474.61	638.38	683.03	1725.54	31.71
10.	2008-09	192.03	264.94	26814.78	701.54	807.66	3887.62	61.99
11.	2009-10	239.34	336.70	38624.21	1022.47	1154.55	5118.10	90.12
12.	2010-11	176.50	240.48	34721.45	880.36	1019.95	2299.71	33.92
13.	2011-12	167.94	233.86	34771.04	856.51	972.03	2208.99	31.32
14.	2012-13	167.91	243.85	42909.15	1041.65	1326.35	4895.34	44.68
15.	2013-14	137.20	207.08	41554.15	1025.21	1275.19	4323.62	38.09
16.	2014-15	167.38	207.70	45880.82	1154.31	1398.10	4285.74	64.12
17.	2015-16	309.08	339.05	80622.09	2018.81	2537.24	17485.30	182.53
	CAGR	4.40*	3.81*	8.82**	9.50**	9.45**	10.60**	5.83*
	Instability index	31.13	28.51	39.48	42.85	44.25	79.62	62.95

TABLE: 1 PERFORMANCE OF (NAIS) IN INDIA.**(Source: Agriculture Insurance Company of India)**

In the above given table, it shows that the compound growth rates have been computed for number of farmers insured, area covered, sum insured, farmers' premium, gross premium collected, claims paid and number of farmers benefited in India during the period of its operation (1999-2000 to 2015-16). Table 1 indicates that positive growth rates have been observed for all the aspects.

However, highest significant growth rate of 10.60 per cent has been observed for claims paid to the farmers. This indicates a kind of loss to the government. On the other hand, growth rates

computed for number of farmers insured, area insured, sum insured, gross premium, farmers' premium, gross premium collected and number of farmers benefitted were observed as 4.40, 3.81, 8.82, 9.50, 9.45, and 5.83 per cent respectively.

The index of instability has also been computed for the above-mentioned variables to examine the variability in the performance of NAIS. The results revealed that highest instability has also been reported in case of claims paid to the farmers (79.62 per cent). This was followed by the number of farmers benefitted where the instability index was found to be quite high as 62.95 per cent; which became one of the major reasons for the failure of the scheme in India. The index of instability for number of farmers insured, area insured, sum insured, farmers' premium and gross premium collected were computed as 31.13, 28.51, 39.48, 42.85 and 44.25 percent respectively.

PMFBY (PRADHAN MANTRI FASAL BIMA YOJANA):

The PMFBY is a flagship scheme which came into operation on 1st April, 2016, and is an improvement over earlier schemes implemented by the government on crop insurance. The scheme aims at reducing the burden of premium paid by farmers and also safeguard them from adverse weather conditions. The scheme also aims at expediting the settlement claims of the farmers and ensures that they do not have to face major problems while receiving indemnity payment. In order to do so, the scheme aims at using technology such as smart phones, remote sensing, drones and GPS technologies to capture and upload data on crop cutting experiments on which yield estimates are based.

The main objectives of the scheme are:

1. To provide insurance coverage and financial support to the farmers in the event of failure of any notified crop as a result of natural calamities, pests and diseases;
2. To stabilize the incomes of farmers so as to ensure that they can continue their farming operations even in the event of crop loss;
3. To encourage farmers to adopt innovative and modern agricultural practices;
4. To ensure flow of credit to the agricultural sector.

The scheme is implemented through a multi-agency framework by selected insurance companies under the overall guidance and control of the Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture and Farmers' Welfare, Government of India and each state. The coordinating agencies are the financial institutions such as Commercial Banks, Co-operative banks, Regional Rural Banks, Government Departments, etc.

The government has empaneled the Agriculture Insurance Company of India (AIC) and several public and private insurance companies to participate in the scheme based on their financial strength, infrastructure, manpower, expertise, etc. The existing State Level Coordination Committee on Crop Insurance (SLCCI), Sub-Committee to SLCCI, District Level 6 Monitoring Committee (DLMC) will be mainly responsible for proper management of the scheme.

THE PREMIUM RATES PAID BY THE FARMER WILL BE AS FOLLOWS:

Season	Crops	Insurance Charges Paid by farmer
Kharif	Food & Oilseed crops (all cereals, millets, oilseeds and pulses)	2 percent of sum insured or Actuarial rate whichever is less
Rabi	Food & Oilseed crops (all cereals, millets, oilseeds and pulses)	1.5 percent of sum insured or Actuarial rate, whichever is less
Kharif & Rabi	Annual Commercial/Annual Horticultural Crops	5 percent or Actuarial rate, whichever is less.

PERFORMANCE OF PMFBY SCHEME IN INDIA:

“Pradhan Mantri Fasal Bima Yojana is continuously playing an important role in protecting the economic interests of the hardworking farmers by reducing the risk associated with weather uncertainties. Crores of farmers are availing the benefits of this farmer-friendly insurance scheme today.”

The government has started PMFBY scheme in India to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests & diseases, to stabilise the income of farmers to ensure their continuance in farming and as well as to encourage farmers to adopt innovative and modern agricultural practices. This scheme ensures the flow of credit to the agricultural sector. The agriculture department provided survey data of PMFBY it is shown as given below table.

Coverage of pradhan mantri fasal bima yojana (pmfby) in india. (for kharif crops)

Year	Total Farmers (In lakh)	Area insured (In Hector)	Benefitted Farmers (Rs. in lakh)	Paid Claims (in lakh)
2018	3,07,38,153	27,831.35	70,60,694	14,88,089
2019	3,83,07,870	29,263.46	91,28,609	20,16,426
2020	4,09,59,579	27,184.29	61,64,154	13,44,820
2021	5,07,04,451	25,033.94	75,95,667	13,25,005
2022	6,93,35,307	26,617.83	66,99,174	10,76,416
2023	8,68,51,529	32,027.41	73,19,061	7,99,571
2024	8,99,49,969	31,230.71	-	-

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

Above Table indicates the coverage of PMFBY regarding kharif crops within 2018 to 2024. The number of farmers covered under the scheme were 3,07,38,153 lakhs in the initial year; and it is showing an increased application of farmers years wise i.e.8,99,49,969 lakh farmers in the 2024 year which was showing the growth of enrolled farmers with PMFBY scheme. Whereas decreasing growth shown about the paid claims such as it shows 14,88,089 lakhs in the initial year and it is downward growth till 7,99,751 lakhs only. About the Benefitted farmers it showing moderate growth of farmers i.e. initially it was 70,60,694 lakh farmers and in 2023 year its very little increase showing that 73,19,061 lakhs only. But there are fluctuations have seen in Area Insured category.

COVERAGE OF PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY) IN INDIA. (FOR RABI CROPS)

Year	Total Farmers (In lakh)	Area insured (In Hector)	Benefitted Farmers (Rs. in lakh)	Paid Claims (in lakh)
2018	2,20,45,537	19,640.90	45,94,971	8,38,866
2019	1,76,66,946	15,420.93	19,73,031	5,50,219
2020	1,98,29,538	15,730.37	27,06,859	5,93,661
2021	3,27,80,044	15,175.22	25,83,831	5,01,413

2022	4,25,08,257	15,216.84	23,66,587	6,10,224
2023	5,54,05,095	18,608.87	6,66,197	1,01,953

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

Above Table indicates the coverage of PMFBY regarding Rabi crops within 2018 to 2023. The number of farmers covered under the scheme were 2,20,45,537 lakhs in the initial year; and it is showing an increased application of farmers years wise i.e. 5,54,05,095 lakh farmers in the 2023 year which was showing the growth of enrolled farmers with PMFBY scheme. Whereas decreasing growth shown about the paid claims such as it shows 8,38,866 lakhs in the initial year and it is downward growth till 1,01,953 lakhs only. Regarding the Benefitted farmers it's also showing negative growth of farmers i.e. initially it was 45,94,971 lakh farmers and in 2023 year its totally decreased till only 6,66,197 lakhs.

PROBLEMS FACED BY THE FARMERS REGARDING PMFBY SCHEME:

The farmers have not seen satisfied with the biased development of scope and content of PMFBY crop insurance scheme. There are issues relating to its operation, governance and regarding coverage method. After discussion with the farmers some problems have seen about the crop insurance scheme. Which are explained in details as given below:

- 1. Delay in Settlement of claims:** The processing of claims in PMFBY begins only after the harvesting of the crop. Further, claim payments have to wait for the results of Crop Cutting Experiments (CCE^{''}s) and also for the release of necessary funds from the central and state governments. Therefore, there is a gap of 8-10 months between the incidence of loss and actual claim payment. To accelerate the settlement of claims in the case of adverse drifting conditions, and to ensure that at least part payment of the likely claims is paid to the farmer, before the end of the season, it is suggested to introduce 'on-account' settlement of claims, without waiting for the receipt of yield data, to the extent of 50 per cent of likely claims, subject to adjustment against the claims assessed on the yield basis. the problems generally faced by the borrower and non-borrower farmers like delay in claim settlement, inadequate implementation, and inaccurate yield estimation and lack of awareness about the scheme and exclusion of malicious damages etc.
- 2. Problem faced by Non-Loanee Farmers:** Loanee farmers were not showing much contraction about awareness problem, because borrowers were much aware about the schemes. Due to the awareness, they reported the insurance procedure. Lack of faith was shown by the non- Loanee farmers in the insurance system. They have little knowledge on sum insured, premium rates, etc. Procedure for making the assessment of crop damages at the farm level.
- 3. Regarding the Scheme procedure:** According to the farmers, implementation procedure should be easy and fast having. Without proper implementation and modern infrastructure, a crop insurance scheme is not sufficiently lucrative for either the farmers or private insurance companies. The scheme can fly very high if the operational guidelines are strictly followed by them.
- 4. Claim coverage problem:** Farmers take the insurance to cover for more risky crops but they cultivate less risky crops. Therefore, if they able to make covers to their crops but due to less money farmers could not buy insured crops and they become fail to get the claim coverage for their crops.
- 5. Absence of Crop-Harvesting risk coverage:** According to farmers, risk is involved from sowing to harvesting through NAIS. In fact, due to seasonal conditions sowing is stopped and farmers also lose their initial investment. This risk turns out to be a disadvantage for the farmers. According to the Farmers this risk should be covered through this scheme.

6. **Certain crops covered under the crop insurance policy:** In the research area there are many crops have been taken through the farmers in their farm such as Groundnut, sunflower, soyabean, Cotton, sugarcane, rice, jowar, bajra etc. but Turmeric, Sunflower, wheat which are produced with the weather healthy condition they cultivate its more in their farm. Under the NAIS scheme these crops were not covered.
7. **Ignorance of Agriculture officer:** The agricultural officers are neglecting to understand every difficulty faced by the farmers, to explain the difficult things in the procedure to them so that they can take benefits and making progress themselves and get better production from the farm.
8. **Insufficient information regarding crop insurance scheme:** The government provides new information in the market regarding crop insurance, but the information does not reach the farmers and they have to suffer losses for their farming. So this problem also considered regarding crop insurance scheme.
9. **High Premium rate:** Farmers usually have limited willingness to pay premiums. On the other hand, they prefer insurance that protects their incomes from multiple risks. The agricultural insurance schemes are costly to administer and the insurance scheme prefers to cover specific risks. The premiums designed by the insurance scheme based on the risk calculation and possibly also their commercial considerations may not be low enough to attract participation of farmers. A study in India for the All-India Disaster mitigation Commission showed that farmers only want to pay up to 2% of insured value for a multi-peril policy and would prefer a kind of service that would make the programme very expensive. Sometimes there is cognitive failure in which the farmer underestimates the risk he faces ('that can't happen to me') and considers the premiums as 'lost money'.
10. **Interaction gap with the agency of Crop insurance scheme:** there are many agencies are available who provide the compensation finance to the farmers through the crop insurance scheme i.e., universal Sampo general insurance company, Bajaj Allianz, chola MS, Reliance general Insurance etc. but these agencies do not communicate to the farmers directly, so the farmers have to face some problems regarding the finance. communication gap with the agency is the problem which was faced by the farmers.
11. **Delay in Assessment of Yield:** After the crop loss farmers has to depend on the procedure for monitoring and compensation. Interviews with experts / knowledgeable person may help in assessing the damage to a crop at difference points. But this procedure takes a lot of time. According to the farmers at the local level there is a need of an agent for helping them for claims assessment and receiving the indemnity payment.
12. **Delay in getting compensation fund:** After crop damage, farmers have to wait a long time for compensation, so farmers cannot cultivate for the next season as well as they have to face many problems financially. So according to the farmers, if they get the compensation amount within 2 or 3 months, they can start cultivating activities timely in the next season.
13. **Illiteracy of farmers:** Farmers suffers a lot due to illiteracy. They also do not understand banking transactions because of Illiteracy. They could not understand the information about crop insurance scheme as they cannot read. They get information about those things only from others. Due to illiteracy farmers cannot even use internet. Also, they cannot understand the statistics regarding compensation. Therefore, they face many problems just because of illiteracy. The problem of illiteracy has seen among the Farmers.
14. **Poor response by commercial banks:** The Co-operative and Commercial Banks provide crop insurance compensations to the farmers. The farmers feel that the commercial banks actively not involved in providing insurance services. Similarly, commercial banks do not co-operate in giving

them proper information about the crop insurance scheme. Therefore, the Poor response of commercial banks is a problem faced by the farmers.

CONCLUSIONS:

The scheme has been able to provide financial assistance to the most vulnerable farmers, as around 85% of the farmers enrolled with the scheme are small and marginal farmers. The recent announcement by Finance Minister of India Smt. Nirmala Sitharaman during her 2022-23 budget speech on the use of drones for crop insurance will further strengthen the integration of technology for smooth implementation of the scheme on the ground.

It is to be noted that the scheme will be launching a doorstep distribution drive to deliver crop insurance policies to the farmers 'Meri Policy Mere Hath' in all implementing States. The campaign aims to ensure all farmers are well aware and equipped with all information on their policies, land records, the process of claim and grievance redressal under PMFBY.

Pradhan Mantri Fasal Bima Yojana (PMFBY) enters its 7th year of implementation Over 36 crore farmer applications have been insured under PMFBY Over Rs. 1,07,059 crores of claims have already been paid under the scheme 'Meri Policy Mere Hath' - a doorstep distribution drive to be launched to deliver crop insurance policies to farmers. Around 85% of the farmers enrolled with the scheme are small and marginal farmers. (<https://www.pib.gov.in/PressReleaseIframePage>.)

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