Pradhan Mantri Fasal Bheema Yojana and Other Crop Insurance Models in India – A Study

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ABSTRACT

Seventy percent of rural population in India is dependent on Agriculture for their livelihood but probably agriculture is the most risky business. Risk refers to the impact of the uncertain outcome on the quantity or value of some economic variable. Agriculture in India is prone to a variety of risks. Most of the farmers in India are small and marginal and can hardly face risk as their asset holdings are very small. Agriculture in most of the areas are rain fed, leading to a greater degree of yield variability and risk. Agriculture is more vulnerable and prone to risks than ever before. An increasing trend in rural area of the country is declining investment in agriculture. India is one the leading exporters of grains, crops and the various agricultural products. Therefore agriculture plays a vital role on the economy of the country. The economic condition of farmers in India is not so good. Majority of farmers in India fall in poverty line or below poverty line in terms of their economic status in the country. Majority of farmers in India depend on the monsoon for agriculture. Poor monsoon and fewer techniques to tackle the situation will affect the crop production. Due to decrease in production or complete loss of production or some disaster they undergo debt and they will not be able to repay the loans they would have borrowed for agriculture purpose.

Various crop insurance models in India have been continuously modified solving the recognized gaps. Sometimes, new schemes were introduced on a pilot basis even before the ongoing scheme stabilized. One such response was schemes based on the area approach in the 1980s which replaced the earlier practiced individual farm approach. More recent insurance schemes are based on weather, and adopt technology of remote sensing. The recent modification in this area yield insurance is Pradhan Mantri Fasal Bima Yojana (PMFBY), launched on Jan, 2016 and implemented since kharif- 2016. This paper seeks to review the provisions, performance and improvements of the scheme in comparison with the other models.

Key Words: ***Crop insurance, Claim settlement, Farming risk, Premium, Indemnity***.

INTRODUCTION:

Agriculture in India is varied, diversified and prone to a variety of risks. Most of the farmers in India are small and marginal and can hardly face risk as their asset holdings are very small. Agriculture in most of the areas are rain fed, leading to a greater degree of yield variability and risk. Agriculture is more vulnerable and prone to risks than ever before. An increasing trend in rural area of the country is declining investment in agriculture. India is one the leading exporters of grains, crops and the various agricultural products. Therefore agriculture plays a vital role on the economy of the country. The economic condition of farmers in India is not so good.

Majority of farmers in India fall in poverty line or below poverty line in terms of their economic status in the country. Majority of farmers in India depend on the monsoon for agriculture. Poor monsoon and fewer techniques to tackle the situation will affect the crop production.

Crop Insurance Models in India:

Agricultural insurance is an effective mechanism for reducing the losses farmers suffer due to natural calamities such as floods, droughts, and outbreaks of pests and diseases. The General Insurance Department of Life Insurance Corporation of India introduced a Crop Insurance Scheme on H-4 cotton , First Ever-Individual Approach Scheme In 1972-73, followed by GIC introduced PCIS in the year 1979, Government of India introduced the first ever crop Insurance 'Comprehensive Crop Insurance Scheme (CCIS)' in order to support farmers financially in the event of crop failure as a result of natural calamities. CCIS was introduced with effect from Kharif 1985. National Agriculture Insurance Scheme (NAIS) In order to increase the use of crop Insurance by both loanee and non-loanee farmers in the country the scheme NAIS was introduced which covered more crops and more risk. National Agriculture Insurance Scheme (NAIS) was introduced in Rabi 1999 -2000.

Various crop insurance models in India have been continuously modified solving the recognized lacunae. Sometimes, new schemes were introduced on a pilot basis even before the ongoing scheme stabilized. More recent insurance schemes are based on weather, and adopt technology of remote sensing. The recent modification in this area is Pradhan Mantri Fasal Bima Yojana (PMFBY), launched in Jan, 2016 and implemented since Kharif 2016-17. This paper seeks to review the provisions, performance and improvements of the scheme in comparison with the other models. There have been various attempts to address these issues by the Government of India and the various state governments in the form of debt waivers, subsidies, tenancy rights etc. Some of these policies were a result of response to the crisis and did not identify the root cause of the problem, and hence backfired (majorly due to moral hazard problem).For Instance, Debt waivers did provide temporary reliefs to the farmers, yet a simultaneous trend in the decline of institutional credit and a rise in non-institutional credit was observed. Given the importance of agriculture and the state of Indian agriculture, there is an urgent need to move towards risk free agriculture. Though, the inherent nature of agriculture does not allow it to be completely risk free. Yet, we can try to make it partially risk free to avoid the unfortunate events of suicides and make agriculture more sustainable. This can be achieved by attempting to devise sustainable methods for protecting farmers interest. A reliable risk management system can serve as an important catalyst for widespread agriculture- value -chain based models in India. The first step in catering to the risks and the root cause of the agrarian crisis is to identify the risks inherent in agriculture. Risks can be understood in terms of impact of uncertain outcome on the quantity or value of some economic variable, here, agricultural income, which can be segregated into production risks, marketing risks or price risks, financial & credit risk, Institutional risk, Technology risk and Personal risk. Even if all the safety mechanisms and farm level risk mitigation mechanisms are in place, a crop failure may occur due to an unanticipated event. Hence, a safety net is required to cater to the resultant crop failure. This is where crop insurance comes into place. A financial mechanism is created to minimize impact of loss in farm income by factoring in a large number of uncertainties which affect crop yields. Agriculture being a highly risky economic activity which is complex and challenging, needs a safety net. Thus, the role of the government is very important in mitigating agriculture risk. Hence government has to design a public safety net with a motivation to avoid drastic and widespread income downturns which will have strong effect on the farmers families and which will adversely affect the production cycle and destabilize rural income.

In insurance models, moral hazard problems occur because the insured can take actions, which affect the probability of losses and cannot be observed by the insurer. Moral hazard occurs after a loan is taken or after the insurance contract is obtained. Moral hazard involves a change in behavior which will increases the risks beyond what insurer believed. There is great chance of occurrence of moral hazard in case of individual yield. Therefore, Area yield based crop insurance is suggested over individual Area-Yield based crop insurance. However, Area based yield crop insurance might create problem of adverse selection thus farmers with lower expected yields than the area average could purchase more protection than farmers with yield above the average. Farmers with higher expected yields opted out, and farmers with lower expected yields purchase crop insurance. Thus increasing indemnity payments relative to premiums paid which can make the model unsustainable as people will opt out of the insurance system as the premium increases. Moral hazard and adverse selection can be avoided only if insurance contracts are based on near to perfect information about each individual's risk.

Comparison of different models:

Year-wise Plan allocation and expenditure during the XII Plan under NAIS is as under:- (Rs. in crores)

Year	*Allocation*	*R.E*	*Expenditure*
XII Plan tentative outlay Rs. 3400.00			
2012-13	400	700	700
2013-14	1200	1600	1600
2014-15	1520.37	1637.23	1543.56
2015-16	*	*	1937.79
2016-17	*	*	3760.42
* Funds have been allocated jointly for all the existing Crop Insurance Schemes (viz. NAIS, MNAIS, WBCIS, CPIS and PMFBY).			

Table 2: The total funds released by Government of India under various schemes for crop insurance as on 31.12.2016 are as under:

Plan/ Year	NAIS (since Rabi 1999-2000)	WBCIS (since Kharif 2007	MNAIS (since Rabi 2010-11)	CPIS (since 2009-10)	PMFBY (since Kharif 2016)	Total Rs in Crores
IX Plan (1997-2002)	811.49	-	-	-	-	811.49
X Plan (2002-07)	2626.84	-	-	-	-	2626.84
XI Plan (2007-12)	5851.88	1370.37	87.15	1.95	-	7311.35
XII Plan (2012-17)					-	
2012-13	700.00	655.00	194.18	0.50	-	1549.68

2013-14	1600.00	700.00	251.02	0.50	-	2551.52
2014-15	1543.56	470.00	584.79	Nil	-	2598.35
2015-16	1937.79	630.79	-413.89	Ni	-	2982.47
2016-17	6201.79	-	-	Ni	1753.41	7955.21
Total	21273.35	3826.16	1531.03	2.95		28386.91

Source: THIRTY FIFTH REPORT , Demand for grants 2017-18 , MINISTRY OF AGRICULTURE AND FARMERS WELFARE (DEPARTMENT OF AGRICULTURE, CO-OPERATION AND FARMERS WELFARE)

Table 3: Comparison of PMFBY with NAIS and MNAIS.

Sl.no	Feature	NAIS [1999]	MNAIS [2010]	PMFBY
1	Premium rate	Low	High	Lower than even NAIS (Govt. to contribute 5 times that of farmer)
2	One Season – One Premium	Yes	No	Yes
3	Insurance Amount cover	Full	Capped	Full
4	On Account Payment	No	Yes	Yes
5	Localized Risk coverage	No	Hail storm, Land slide	Hail storm, Land slide, Inundation (Flud)
6	Post-Harvest Losses coverage	No	Coastal areas - for cyclonic rain	All India – for cyclonic + unseasonal rain
7	Prevented Sowing coverage	No	Yes	yes
8	Use of Technology (for quicker settlement of claims)	No	Intended	Mandatory
9	Awareness	No	No	Yes (target to double coverage to 50%)

Source: Press Information Bureau

<u>Acceptance of PMFBY by farmers</u>

The Pradhan Mantri Fasal Bima Yojana (PMFBY) which was introduced in January 2016 and launched in the country from Kharif 2016 has made impressive progress in the first season itself. As per the data available as on date the scheme has provided coverage to 366.64 lakh farmers (26.50%) and at this rate it is likely to exceeding the target of 50% coverage for both Kharif and Rabi seasons in 2017-18.

In terms of total area covered the achievement has been significant amounting to a total area of 388.62 lakh ha. and sum insured of Rs. 141339 crore. The Pradhan Mantri Fasal Bima Yojana (PMFBY) was launched to provide insurance coverage and financial support to the farmers in the event of failure of crops as a result of natural calamities, pests & diseases. So it is meant to cover production loss to the farmers. PMFBY has shown an improvement of 18.5 % increase in coverage compared to Kharif 2015.

The achievements in Kharif 2016 as compared to Kharif 2015 are notable, specially as in Kharif 2015 in most of the States the cut-off date for availing insurance for loanee farmers was 30th September, 2016 and the enrolment under crop insurance shot up after prolonged spell of drought, whereas this year has been one of normal monsoons and window for availing insurance was much smaller with the cut-off date for availing insurance being 31st July, 2016, which was later extended to 10th of August, 2016.

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. Another significant achievement in this season has been 104% enhancement in sum insured. This was made possible as PMFBY mandates that the sum insured must be equal to the Scale of Finance and therefore, reflects better risk coverage of farmers in comparison to earlier schemes.

Merits of PMFBY

1. **Maximum benefits by paying minimal premium**: Earlier crop insurance schemes (NAIS and MNAIS) premium rates had risen drastically while compensation derived in case of crop failure very low. Under PMFBY premium amount is low at 2 percent for Kharif crops and of 1.5 percent for Rabi crops. So more farmers adopt crop insurance.
2. **Post-harvest loss covered**: It offered compensation for post-harvest losses as well.
3. **Wide coverage of crops:** It covers most food crops and oil crops cultivated. Also coves commercial or horticultural crops (including cotton).
4. **"Capping" done away with:** So no upper limit on paying insurance coverage. Farmers compensated in accordance with their losses.
5. **Fast assessment of crop losses:** Smart phones, remote sensing technology and even drones shall be used to estimate losses, assess compensation, and settle claims without much delay.
6. **Expected to stabilize income** of farmers and provide credit flow.

Demerits of PMFBY

1. **Increase in Centre's fiscal load:** By about 500 percent.
2. **Less political will for states to cooperate:** 50 per cent of the premium subsidy is borne by the states. States are also responsible for conducting the requisite number of crop cutting experiments (CCE) at the village for submitting to the insurance company. But the scheme is named as PM's scheme, so concerns that central government will get the credit.
3. **Lack of contact between insurance companies and farmers**: Right now, farmers have no direct connection with insurance companies. The premiums are deducted by banks against crop loans extended by them. As a recent ground-based assessment by the Centre for Science and Environment has shown, “farmers receive no insurance policy document or receipt”.
4. **Large number of farmers still outside PMFBY net**: Covers only those farmers who are under institutional loans. The scheme Is optional for non-loanee farmers.
5. **Low Farmer Awareness:** makes it easy for insurance companies not to provide claim payments.
6. **Irregular Funding in reality.**
7. **Ground-Reality - Delays in payment in Kharif 2017:** farmers have received only a fraction of the estimated crop damage claims in most states for Kharif 2017.

Conclusion: PMFBY is **well** received by farmers. Merits of the insurance scheme is more compared to small lacunas when compared against other crop insurance schemes which were functional in the country till Kharif 2016-17. As farmers have to enroll for crop insurance scheme in Banks and they will receive crop loss claims in to their bank account if there is any crop loss. System is very simple and reliable. Farmers need to be educated about the scheme by providing proper awareness. Important dates i.e cut-off dates should be communicated in popular medias such as television so that majority of farmers will come under the safety net.

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