PMFBY LAYING BACKGROUND FOR INDIAN AGRICULTURE AGAINST MONSOON FLUCTUATIONS INDUCED RISKS

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ABSTRACT

In India predominant rural population still leaves on agriculture as their primary source of Income. Need to study current status of insurance on agriculture gains importance for safeguarding farmers against draught and imbalances in yield resulting in suicides of farmers. One of the populistic game changer insurance schemes brought out by government is Pradhan Mantri Fasal Bima Yojna (PMFBY) which not only provides insurance coverage to farmers against natural calamities and pests, but also encourages them to adopt innovative modern agricultural practices. Even the premium paid is uniform and low with cap on interest rate for greater coverage. The aim of new scheme is to cover 50% of total crop area i.e. 19.40 million hectare and use of digital technology to improve yield-data and automate claims (Goel, 2016). The article discusses holistically PMFBY scheme and provides insights and its performance while executing on field including impediments in safeguarding farmers against disasters and risks against the set objectives.

Keywords: PMFBY, Crop Insurance, Safeguarding Farmers, Monsoon

INTRODUCTION:

Predominant India's 60 percent rural population still depends on agriculture as their source of livelihood. Safeguarding farmers against monsoon fluctuations induced risks and its impact on agriculture produce is of utmost important especially for small farm agriculture with low risk bearing capacity resulting in prosperity of economy with the set objective of inclusive growth and reduction in poverty in India.

In this direction crop insurance plays a pivotal role as risk management tool which a farmer can use in today's world to safeguard his risk against untoward fluctuations of monsoon resulting in floods, drought, pests, disease and plethora of other natural disasters. The need for innovating insurance towards agriculture has gained importance against the backdrop of frequent failure of all previous schemes such as NAIS and MNAIS against protecting farmers from suicides and draughts. As universal coverage is not possible the new scheme should aim at maximum coverage including marginal farmers who needs social protection with affordable lower premiums by adopting modern technologies.

The Pradhan Mantri Fasal Bima Yojna (PMFBY) was introduced on 14th January 2016, in a move aimed at reducing agricultural distress and farmer's welfare without having to affect hefty hikes in the Minimum Support Prices (MSP) of agricultural products prices due to Monsoon fluctuations induced risks. Under the new scheme being implemented from Kharif season of 2016, the premium paid by farmers had been reduced to 2% of the insured value for the more rain-dependent Kharif crop and 1.5% for the Rabi season, compared with 3.5-8% charged by two earlier schemes National Agricultural Insurance Scheme (NAIS) and Modified National Agricultural Insurance Scheme (MNAIS) and in the case of horticultural crops, farmers' premium burden will be 5% of the sum assured or 50% of the total premium. NAIS and MNAIS have been discontinued from Kharif 2016, but the on-going Weather Based Crop Insurance Scheme (WBCIS) and Coconut Palm Insurance Scheme would continue to operate while premium to be paid under WBCIS has been brought on a par with PMFBY. The new scheme is set to use technology extensively which includes remote sensing to reduce the number of crop cutting experiments and smart phones for capturing data on real-time basis for ensuring early settlement of claims and encouraging farmers to take benefit of this scheme. PMFBY removed the upper limit on government subsidy provided equally by both centre and state governments as against older schemes of NAIS and MNAIS. Even if there is balance premium after farmer's contribution will be borne by the government under new scheme. This would ensure that farmers get the full sum insured without any reduction or hassles from the eleven designated insurance companies if natural calamities ravage their crops for the year 2016-17. It is also expected that after roll out of PMFB, the crop insurance coverage is set to rise from 45 million hectares or 23% of the area under cultivation to present of 50% of the crop area by 2018-19 (Press Information Bureau [PIB], 2016).Another benefit to farmers under the new crop insurance scheme is that losses incurred by them at any stage of the farming activity from the sowing to the post-harvest season would also be covered as against earlier schemes which only covers post-harvest losses. Also, even those farmers who haven't taken bank loans will be eligible for insurance cover under PMFBY. The new scheme is expected to increase farmer's income and safety resulting in increase in rural demand. The government has allocated Rs.5501 crore in 2016-17 while Rs.2995 crore was allocated for various crop insurance schemes in the previous fiscal (PIB, 2016).

REVIEW OF LITERATURE:

Dr. Pradeepika (2017) reviewed PMFBY in the state of Haryana by conducting survey with a sample size of 100 No. s representing financial institutions, implementing agency and agricultural department who were aware of operational modalities of PMFBY scheme. The survey was conducted to investigate the response related to display scheme posters in their office premises, discussion of the scheme with the farmers when they visit the bank / office, distribution of printed hand-outs like brochures, pamphlets to farmers and also include discussion on features and operational modalities of PMFBY on the agenda in various meetings with the farmers.

It is found that issues like negative publicity, lack of marketing, non-involvement of agriculture department staff due to operational issues in capturing crop cutting data are the major hindrances in executing PMFBY (Dr. Pradeepika, 2017).

Oliver Mahul, Niraj Verma and Daniel J.Clarke studied NAIS entire policy process from the NAIS to the modified NAIS and beyond and range of policy options available to the Government of India in designing a successor. The paper also discusses modified NAIS and outlines remaining challenges and options for the future. Although shifting from social crop insurance program with ad-hoc funding from the Government of India to a market-based crop insurance program with actuarially sound premium rates and product design is a major step forward leading to improved mNAIS product and active involvement of private sector insurance markets (Mahul, Verma, & Clarke, 2012).

OBJECTIVES:

- To study the need of Pradhan Mantri Fasal Bima Yojna (PMFBY)
- To study the present scenario scheme of Pradhan Mantri Fasal Bima Yojna (PMFBY)
- To anticipate the problems and challenges associated with this PMFBY and trying to suggest the best possible way to move forward for achieving the objectives.

METHODOLOGY:

The study is based on secondary sources of data/ information. Different books, journals, newspapers and relevant websites have been consulted in order to make the study an effective one. The study attempts to examine the impact of PMFBY scheme on building the agriculture sector of India.

Why Pradhan Mantri Fasal Bima Yojna (PMFBY):

1. Premiums rare are as low as 2% on the sum insured for all kharif crops, 1.5 % for all rabi corps and 5% for commercial and horticultural crops (PIB, 2016). The rest of the premium amount is to be borne by State government and Central government equally.
2. Maximum compensation damage eligible in PMFSBY as the sum insured or maximum amount to be paid to farmers is equal to loan limit fixed by banks for the crop concerned covering its estimated production cost (Damodaran, 2017)
3. A Speedy claim of damage settlements. It envisages payment within three weeks upon receiving of yield data through the use of technology like remote sensing and drones. Even payment to be transmitted directly to account to reduce leakages. For e.g. If an insured crop in a particular village falls below a threshold it entitles all farmers in that area to get claim within three weeks (Damodaran, 2017).
4. The area under insurance cover has substantially increased from 27 to 37mil hectares due to PMFBY.
5. Production cost linked sum insured(SI): Unlike previous schemes where SI, where set artificially low so as to limit the claims in PMFBY SI, is equal to the required finance crop or loan limit fixed by banks for the crop concerned covering its estimated production cost. This made scheme attractive to the farmers (Kaur, 2017).

Features of PMFBY Scheme:

1) **Multi-Agency model:** The scheme is to be implemented through a multi-agency framework under the guidance the Department of Agriculture in coordination with Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare (MoA & FW, 2017), Government of India (GOI) and the concerned State in coordination with various other agencies; viz Financial Institutions like Banks, their regulatory bodies, Government Departments viz. Agriculture, Co-operation, Horticulture, Statistics, Revenue,

Information/Science & Technology, Panchayati Raj etc. (Singh, 2017). The government's move is to enhance insurance coverage to more crop area and to protect farmers from challenges of changing monsoon. The new scheme, to be executed also included private and public insurance companies as one of the stakeholders selected through a bidding process to decide premiums thus adding an element of competition which would bring market dynamics resulting in benefits to farmers through efficiency and transparency.

2) **Premiums of the scheme:** With farmers having been required to pay a premium share of as high as 15 percent in several areas in the country, there has been a long-standing discussion on the need to bring down these rates. PMFBY is introduced as replacement scheme of NAIS/MNAIS and rates are brought down with a cap on interest rates with the objective to outreach farmers. Under this scheme, farmers will have to pay a uniform premium of two percent for all kharif crops and 1.5 percent for all rabi crops. For annual commercial and horticultural crops, farmers will have to pay a premium of 5 percent (MOA & FW, 2017). The remaining share of the premium, as in previous schemes, will continue to be borne equally by the Centre and the respective state governments. The scheme is also exempted from service tax liability of all the services involved in the implementation and ensuring 75-80 percent subsidy of insurance premium to farmers.
3) **Risks Covered:** PMFBY is designed to cover comprehensive risk insurance on yield losses due to non-preventable risks, such as Natural Fire and Lightning, Storm, Hailstorm, Cyclone, Typhoon, Tempest, Hurricane, Tornado. Even it covers risks arising due to Flood, Inundation and Landslide, Drought, Dry spells, Pests/ Disease. Similarly in cases where the majority of the insured farmers of a notified area, having an intent to sow/plant and incurred expenditure for the purpose, are prevented from sowing/planting the insured crop due to adverse weather conditions, shall be eligible for indemnity claims up to a maximum of 25 percent of the sum-insured (Minister of Agriculture & Farmers Welfare Krishi Bhawan(MOA &FW), 2017).
4) In post-harvest losses, coverage will be available up to a maximum period of 14 days from harvesting for those crops which are kept in "cut & spread" condition to dry in the field (MOA & FW, 2017). For certain localized problems, Loss/damage resulting from the occurrence of identified localized risks like hailstorm, landslide, and Inundation affecting isolated farms in the notified area would also are covered. Moreover, it has been made clear that there will be "no upper limit" on the Government subsidy resulting in farmers getting claims against full sum insured without any reduction Even it is made mandatory for banks to make sure all crop loans are insured and banks will make well for the losses. Now it is the responsibility of the banks and insurance companies to deliver the scheme to farmers and make sure major farmers are covered under the scheme
5) **Induction of Technology:** Use of technology is made mandatory in PMFBY scheme with the objective to improve operational efficiency and bring transparency in the damage evaluation process. GSI enabled Smartphone devices and remote sensing will be used to capture and upload data of crop cutting to expedite claim payments to farmers. Apart from this the scheme also tries to addresses long-standing demand of farmers by including catastrophic events such as hailstorms, unseasonal rains, landslides, and inundation. Making use of technology mandatory will also improve operational efficiency and will be beneficial to both the farmers and insurers.

Progress so far-PMFBY:

For the kharif 2016 season government has introduced yield based Pradhan Mantri Fasal Bima Yojana (PMFBY) and weather index-based Restructured Weather Based Crop Insurance Scheme (RWBCIS) in which 366.637 lakh farmers have insured. In the year 2016-17 fourteen states have implemented PMFBY wherein farmers who are accessing institutional credit made compulsory to take insurance cover for certain notified crops by paying the premium. Since the launch of PMFBY in January 2016, states such as Andhra Pradesh, West Bengal, Jharkhand, Odisha, Himachal Pradesh and Uttarakhand have already awarded contracts to empanelled insurance companies for providing crop insurance coverage for kharif 2016 season. The top 10 States in terms of number of farmers insured under PMFBY and RWBCIS (combined) during Kharif 2016 were: Maharashtra (106.39 lakhs with 29.02% of total farmers insured under the PMFBY scheme) , Rajasthan (53.06lakhs with 14.47% of total farmers insured under the PMFBY scheme) , Madhya Pradesh, West Bengal, Uttar Pradesh, Odisha, Andhra Pradesh, Bihar, Chhattisgarh and Gujarat.

Table 1: http://www.thehindubusinessline.com/money-and-banking/private-insurers-reap-a-windfall-from-crop-cover-scheme/article9781749.ece

Kharif 2016				(in Rs. crore)
State	**Farmers Premium**	**Gross premium**	**Claims reported**	**Claims Paid**
Maharashtra	568.38	3933.42	1832.94	1803.29
Karnataka	156.08	858.2	674.22	506.85
Uttar Pradesh	234.41	596.06	422.47	409.74
Rajasthan	218	1959.46	292.67	291.9
Bihar	130.54	1122.29	326.26	0
Odisha	137.82	532.71	423.01	235.85

During the 2016 kharif season, the total premium collected was □15,686 crore and claims paid was □3,655 crore and that for rabi season total premium receipt stood was □4,688 crore and claims settled were a mere □22 crore resulting in private insurances companies making a windfall gain of over Rs.16700 crore for the year 2016-17.

Challenges in Implementation:

1) **Gaps in the assessment of crop losses:** Assessment of crop loss on the field has become a major concern because the sample sizes in each village are not large enough to capture the scale and diversity of crop losses (Subramanian, 2017). In many districts ground level agricultural department officials could not induct technology like smartphones and drones in sample collection and lack of trained outsourced agencies, huge scope of corruption in implementation leading to complete formalities only on paper.
2) **Insignificant role of Insurance companies:** PMFBY involves a significant role of insurance companies, but as a report by CSE shows insurance companies, do not even maintain landholding-wise or crop-wise databases of their supposed client, and did not give insurance policy document or receipt to farmers. Even the premium was collected by banks directly from farmer's account multiple times as insurance companies do not have any direct interaction which leaves farmers clueless where to go to claim damages.
3) **Low farmers awareness** about the organized banking and insurance sector being exploited by institutions resulting in low subscription in the scheme. As of date still, there is no direct linkage between insurance companies and farmers leading to huge gaps which resulted in no insurance policy or receipt to the farmer. Many of the farmers are not informed before they are enrolled for the insurance and came to know only after the premium already deducted from their accounts and they could not claim compensation despite being insured just because they are not aware that they were insured.
4) **Delay in claims reimbursement:** In spite of PMFBY promises speedy claim settlements. It envisages payment within 3 weeks upon receiving of yield data through the use of technology like remote sensing and drones. But on the ground, it is found that in many cases, did not investigate loses due to a localized calamity and did not pay claims. For Kharif 2016 claims payment was made inordinately delayed either not paid or partly paid to farmers in April 2017 in 14 out of 21 states.
5) **Lack of Political will** of state government in paying their share of premiums, procuring smartphones and submission of crop cutting experiment based yield data resulted in lagging

of the scheme. Deposition of premium in tranches by government resulted in deliberate delay in releasing claims by insurance companies.

6) **Challenge in maintaining crops for inspection:** As the post-harvest losses are available up to the maximum of 14 days (Ministry of Agriculture and Farmers Welfare, 2017) those crops need to be maintained for inspections by respective officials in order to process the claim procedure which itself has become a challenge on the field.
7) **Premium amount need to be regulated:** It is been observed that insurance companies charged high actuarial premium rates during kharif 2016 (charged 20.5 percent Gujarat, 29.9 percent Rajasthan against all India rate of approximate 12.6 percent). This has resulted in huge profits to insurance companies which stood around Rs.16700 crore for the kharif 2016.

Gaps in PMFBY:

1) PMFBY is not a 100% centrally funded scheme opposing to what its name suggests. Both state and center governments are required to pay 50% premium subsidy (Damodaran, 2017). This requirement for states has resulted in the delay of claim settlements for farmers. The states are not happy with the scheme as they have to pay 50% of the premium subsidy while the center hogs all the glory.
2) **One-Size-Fits-all approach:** On real terms the relief amount decided by the government is of Rs.5000/- per acre or even smaller amounts against the actual on-ground loss of Rs.40000/- to Rs.50000/- per acre (The Tribune Special [TS], 2017). Even the agriculture output and input in the area/district is influenced by the agro-climatic conditions. The scheme also doesn't have anything for tenant farmers, who bear the risk of crop failure but not entitled to compensation.
3) **Rationality behind entire village being a single unit of Insurance:** The scheme defines notified crop area on the assumption that all farmers face similar risk exposures, identical cost of production per hectare, earn comparable farm income per hectare and experience similar crop loss due to insured peril which in real time is not possible. The farmers demanding scheme to be farm plot-specific with crop compensation of leaves above 95 percent against the current basis of village-specific (TS, 2017). Even this scheme will be advantages only for those farmers who planted notified crops only on the field. Most districts tend to have 2/3notified crops only which makes remaining uninsured.
4) **Premiums calculated on a 10-year benchmark** for accessing 'normal' yield levels need to be changed with the latest yield level which represents actual conditions on grounds (TS, 2017. Even single standardized rate of premium is not justifiable as on ground different states have different crop losses, especially the state of Punjab state has very low crop loss compared to the rest of the country.
5) **Only harvested crop** is within the ambit of the scheme which itself defeats farmers the purpose of safety against crop losses as the process of shifting responsibility does not end at harvesting level only. Largely for states like Punjab where mechanized harvesting operations ensure the crop reaches mandis within hours (TS, 2017). But there is a time lag of few days in procurement process exposes lying stock to vagaries of weather in market yards(storage losses) also needs to be safeguarded. Even PMFBY doesn't cover loss inflicted by wild animals, malicious damage, riots etc. which is also needed of the day.
6) **Safeguarding banks interests at the cost of Farmer's safety:** Making crop insurance mandatory by banks while allocating loans also disinclined as this process only safeguard the interests of banks from bad loans against covering the real risk of farmers. Apart from this banks also gain from hefty 4 percent charges on premium collected from farmers through insurance companies. In fact, banks are not only gaining commission while insuring their loans but also safeguarding the loans given to the farmers.
7) **A burden for Government exchequer:** Currently the bill of Rs.3,100 crore allocated on account of centre share of the premium for the 23 percent crops insurance for the period 2016-17. Once it reaches 30 percent of the crop comes under insurance cover, the Centre's

financial liability is estimated to go up to Rs.5700 crore and it is going to touch Rs.8,800 crore once it achieves 50 percent of crops in three years period ("Express News Service", 2016). As the Centre's financial liability goes up, the bill of the states where the scheme gets implemented will also go up correspondingly. Although premiums are very much lower for the farmers it is difficult to provide the promises by the government

8) **Minimum role of insurance companies:** Report by CSE shows insurance companies; do not even maintain landholding-wise or crop-wise databases of their supposed client did not give insurance policy document and receipt to farmers. Even the Premium was collected by banks directly from farmer's account multiple times. As insurance companies do not have any direct interaction which leaves farmers clueless where to go to claim damages.
9) **Farmers required minimum guaranteed income:** One of the challenges which remain unattended to segregate insurance and disaster relief. Segregating farmers with no or very low chance of becoming commercially viable needs to be designed on social protection basis rather than commercial risk coverage. Insurance has commercial basis whereas the disaster relief for small and marginal farmers has a social implication. The farmer's income depends upon yield and price (production and market risk) which gets on the sale of agriculture produce (TS, 2017).
10) PMFBY covers only weather based risks related to production and not price/market risks such as market price crashing on bumper crop year. Even the cost of arhtiya system costs/profits in present procurement arrangement needs to be saved/removed/monitored which recurring fiscal burden on both farmers and government (TS, 2017).
11) PMFBY will create free rider problem among farmers. In subconscious mind of farmers, it is set that their crops are insured.so will not give efficient input to increase agricultural productivity.

CONCLUSION:

The new scheme contains attractive features giving financial security, promoting institutionalized credit and safeguarding banks loans which may make crop insurance more interesting for farmers. Similarly, a higher financial commitment by the government and reduction of premium may invite farmers to adopt Pradhan Mantri Fasal Bima Yojana. The government's move will enhance insurance coverage to more crop area to protect farmers from vagaries of monsoon. Hence the scheme is considered very timely and also quite in tune with similar initiatives in some countries. Making use of technology mandatory will also improve operational efficiency and will be beneficial to both farmers and the insurers. Additionally, since farmer's premium will be down, the uptake of policies would be high. Moreover making the new crop insurance scheme mandatory for states will also mean there will be an increase in the list of policymakers. Adding catastrophic events also to this cover to protect farmers against crop loss/damage due to incidents like cyclone would be beneficial to all stakeholders yet again.

An efficient regulation mechanism is required to monitor the execution of the scheme and compensates farmers. Even gaps in the scheme such as such as the decision of what to sow and reap is currently not a well-informed choice based on a sound assessment of soil, one-size-fits approach on premium's, claims calculation methods, price fluctuations risk needs be addressed.

Moving forward the aim of the government should be to farmer generating minimum guaranteed income which depends on both on yield and price. Insuring yield against monsoon will not solve the problem as the price is also a determinant of income. Although government determines MSP (minimum selling price) taking all current costs into consideration will not guarantee a minimum income to the farmer. So government needs to fix minimum guaranteed income rather than minimum selling price for the agriculture produce.

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