Pradhan Mantri Fasal Bima Yojna and Farm Risk Management: A study of Jammu District

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Abstract:

The agricultural sector contributes only 17-18percent to India's GDP (The Economic Survey, 2017-18) but still India is a largely agrarian economy as income from the farm sector determines the fate of other sectors of economic activity. Thus the government has to safeguard the farm sector from the risks of uneven prices and uncertain yields. Farmers in the country face a variety of risks resulting from natural calamities and disasters and undergo difficult times due to crop losses and even total crop failures. Agriculture insurance schemes launched earlier like NAIS and WBICS have not considered the problems faced by small and marginal farmers in depth. The increasing cases of farmer suicides across the country are a testimony to this fact.

This is a conceptual paper which tries to look at the efficacy of the recently- launched Pradhan Mantri Fasal Bima Yojna (PMFBY) being implemented from the Kharif season of the year 2016. The paper seeks to look at the PMFBY for its comparative superiority over the previous crop insurance schemes . It attempts to study the impact of PMFBY in Jammu District of Jammu and Kashmir. Data have been obtained from banks, insurance agencies and the Agriculture Department in Jammu. Interviews of bank employees and the government staff associated with PMFBY were conducted. Besides focus group discussions with farmers from different blocks were also conducted. Finally thematic analysis was used to analyse the data.

Keywords: Insurance, Agriculture, Risk Management, Crop Insurance

Introduction

India is a land of farmers where a large proportion of rural population depends on agriculture and allied activities for its survival. Agriculture plays a dominant role in generation of employment opportunities with nearly half of the Indian population being dependent on agriculture directly or indirectly to earn their livelihood (India Economic Survey 2015-16). However, over the years the contribution to the GDP from agriculture is declining continuously reaching to a level of 14 percent of India's national income and amounting to Rs.112.18 lakh crore. (Ministry of Statistics and Programme Implementation, Government of India).

Agriculture is subject to many risks. Some of these are man-made disasters such as fire, sale of spurious fertilizers, seeds, pesticides, price crash and others. In India, agriculture heavily depends on monsoons with 60 percent of the cropped area being rain-fed. About 75 percent of rainfall occurs during June-September period and the fate of the Kharif crops depends on the South-west monsoons. Therefore, the agriculture sector remains vulnerable to the vagaries of monsoon. Nearly 55 percent of the cultivated area depends on the timely arrival of monsoon. Even areas with irrigation facility are under severe strain as overuse of groundwater has led to a fall in the groundwater level. Lack of adequate warehousing and cold storage facilities are adding further strain on agricultural produce causing huge loss of food items every year. These have far reaching implications on the agriculture prices and returns on investments from agriculture. The droughts that occurred during 1970 to 2002 reduced agricultural income by nearly 60 to 80 percent (World

Bank 2012). Absence of monsoon spells in one season not only affects the rural economy but disturbs the urban economy too. The rural expenditure falls, causing a decline in rural demand. Natural calamities in the form of floods, typhoons, droughts, hailstorms and others put a bad impact on the crops and prove disastrous for the poor farmers with limited resources. Looking at these risks and their overall impact on the rural economy the government has from time to time launched Crop Insurance Schemes.

Jammu and Kashmir is predominantly an agrarian state with 80 percent of the population involved in agriculture and allied activities. The climatic conditions and diversity of the state varying form sub-tropical in Jammu, temperate in Kashmir and cold arid in Ladakh make it suitable for varied cultivation. Over the years, the farming community has started several new practices to meet the requirement of their staple food crops like Rice, maize, wheat, pulses, fodder, oil seeds, potato and barley. In order to protect themselves from the crop losses most of the farmers have adopted for crop diversification and others have gone for crop insurance.

Given the uncertainties, it becomes imperative to safeguard the welfare of Indian agriculture against price volatility and have a proper platform for covering risks that arise from such events as floods, droughts, diseases, pests and others leading to crop failure. At an individual level, it is not possible for the farmers to manage and mitigate such risks..

A large number of past studies have estimated that climate change leading to increase in temperatures would have considerable impact on agriculture revenue, agriculture yields and food security (Sanghi and Mendelsohn 2008). It has been reported that during 2001 to 2014 there were nearly 17,276 farmers suicides because of issues arising out of crop failure and resulting inability to repay loans . The number of farmer suicides drive home the point that crop insurance has not proved as an effective tool for risk mitigation (Uvaneswaran, S.M. and Mohanapriya, T 2014).

There is a need to design risk mitigating instruments or contracts that will indemnify the farmers from natural catastrophes and other crop losses. There should be more than one instrument which anchors a stable growth of our agriculture. The large number of infirmities mentioned above prompted the new government to overhaul the crop insurance scheme and make it more relevant with a far greater outreach and penetration. The heartening fact is that , not only India, but the entire developed world has witnessed some limited success of crop insurance despite complexity in deciphering and modelling the risks (Nair 2010).

Objectives of the Study

It has been estimated that in India, as much as 20 percent of GDP is wiped out whenever there is bad monsoon. The extreme global weather conditions experienced during 2010 have impacted many businesses and industries especially commodities. Traditional risk management and crop diversification tools and techniques have been unable to cope up with the unpredictable weather risks which are hampering the growth of Indian economy by posing a threat to agriculture.

The objectives of this paper are:

i) To study the problems faced by the farmers and the impact of various crop insurance schemes launched in Jammu district.

ii) To study the future prospects of the new crop insurance scheme.

Crop Insurance Schemes in India and their Objectives

After Independence, several studies were done to explore the possibility of crop insurance. In 1979, pilot crop insurance scheme was introduced in many states, but the participation was voluntary. This scheme met with some success and continued till mid-eighties in a few states. Since then various attempts have been made to introduce crop insurance schemes to provide relief to the farmers. Some notable schemes are:

1. Programme based on individual‘ approach (1972 to 1978)
2. National Agriculture Insurance Scheme (NAIS) (Rabi 1999-2000)
3. Modified National Agriculture Insurance scheme (MNAIS) (Rabi 2013-14)
4. Weather Based Crop Insurance Scheme (WBCIS) (Rabi 2013-14)
5. Pradhan Mantri Fasal Bima Yojana (PMFBY) (Kharif 2016)

1) **Programme based on individual approach**: This was the first crop insurance programme in India started in 1972 on H-4 cotton in Gujarat, and was extended later to a few other crops and other states. The Scheme was based on "Individual Approach". The scheme continued till 1978-79 and covered merely 3,110 farmers for a premium of INR 454,000 and paid claims of INR 3.79 million indicating its non-viability and non-popularity (Singh G 2010).

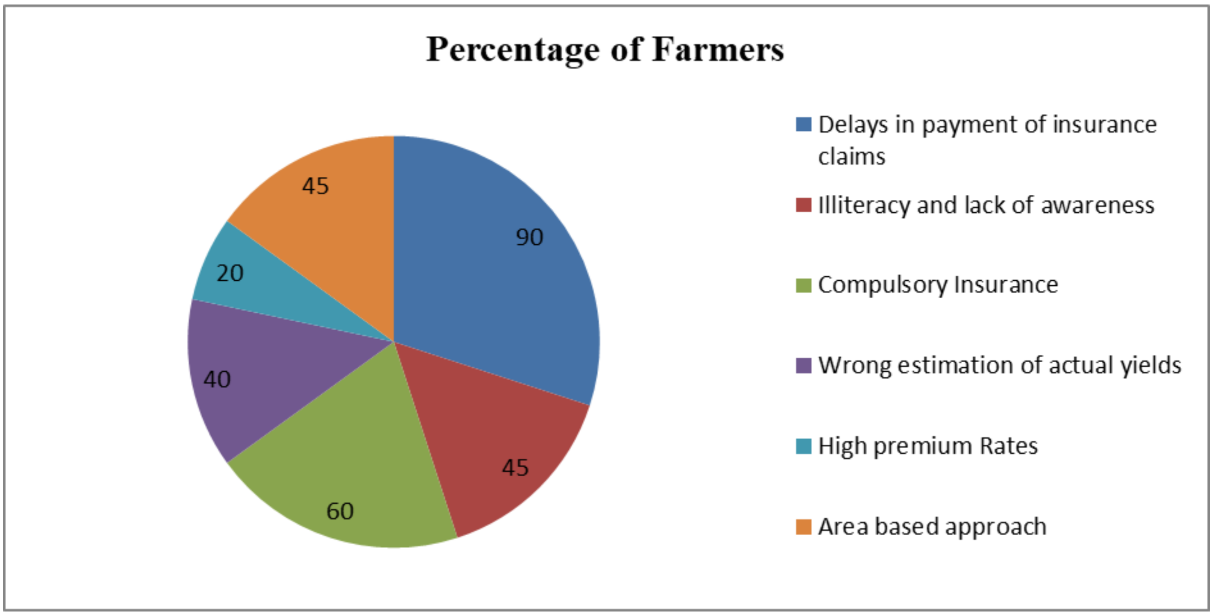
2) **National Agriculture Insurance Scheme (NAIS):** National Agriculture Insurance Scheme, also known as RASHTRIYA KRISHI BIMA YOJANA (RKBY) was introduced by the Government of India from Rabi 1999-2000 season to protect and provide coverage to the farmers against the losses from crop failure. The scheme was implemented by Agriculture Insurance Company (AIC).The features of the scheme were as follows:
   - ➢ The scheme covered all food crops (cereals, millets and pulses) and oil seeds and Annual commercial/ horticultural crops.
   - ➢ 50% subsidy in premium was permitted for Small & Marginal farmers, to be shared equally by the state and central government.
   - ➢ The Scheme operated on the basis of ‘Area Approach’.
     (Nayak, Y 2016)

3) **Modified National Agriculture Insurance Scheme (MNAIS)**: This Insurance Scheme was a further improvement over NAIS based on the recommendations of the joint group constituted by the Government of India and various stakeholders. It was implemented on a pilot basis in 50 districts from Rabi 2010-11. MNAIS is better than NAIS on the following parameters:
   - ➢ Actuarial premium with subsidized premium of up to 75 percent to all farmers;
   - ➢ Premium subsidy shared by the Central and State in the ratio of 50:50.
   - ➢ Unit area of insurance reduced to village/ village panchayat level for major crops.
   - ➢ On account payment of up to 25 percent for likely claims as immediate relief to farmers;
   - ➢ Accurate calculation of threshold yield; and minimum indemnity level increased to 70percent in place of earlier 60percent;
- ➢ The scheme was compulsory for loanee farmers and voluntary for non-loanee farmers; (Nayak,Y 2016)

4) Weather Based Crop Insurance Scheme (WBCIS): With the objective to bring more farmers under the fold of Crop Insurance, a Pilot Weather Based Crop Insurance Scheme (WBCIS) was launched in some States in 2007. The Scheme provided insurance protection to farmers against adverse weather incidences, such as deficit and excess rainfall high or low temperature, humidity etc (Singh G 2010).

However, each of these schemes met with a limited success, the attainment from these schemes was very low (Venkatesh 2008).Administrative and financial difficulties were there in the implementation of these schemes (Singh 2010). Low coverage, poor financial performance and delays in indemnity payment further held up these schemes. (Raju and Chand 2008). One key problem in most of the scheme was the unit of assessment. The unit of assessment was either district or a block which glosses over failures at individual levels. The unit of assessment ideally should be a village or a farm. Another pitfall of these schemes has been a high claim / premium ratio. Despite all this India has been the largest beneficiary of crop insurance in the world, though less than 20 percent of farmers are insured in the country.

a) After having interviews and focus group discussions with the farmers the following problems were identified.



a) Delays in payment of insurance claims: Under the scheme, it was made clear that the claims were paid within a period of 45 days of closing of insurance period whereas very few cases were reported where claims were actually paid within such period.

b) Illiteracy and lack of awareness: Most of the farmers here were found to be illiterate having no knowledge about crop insurance, its benefits and the new schemes.

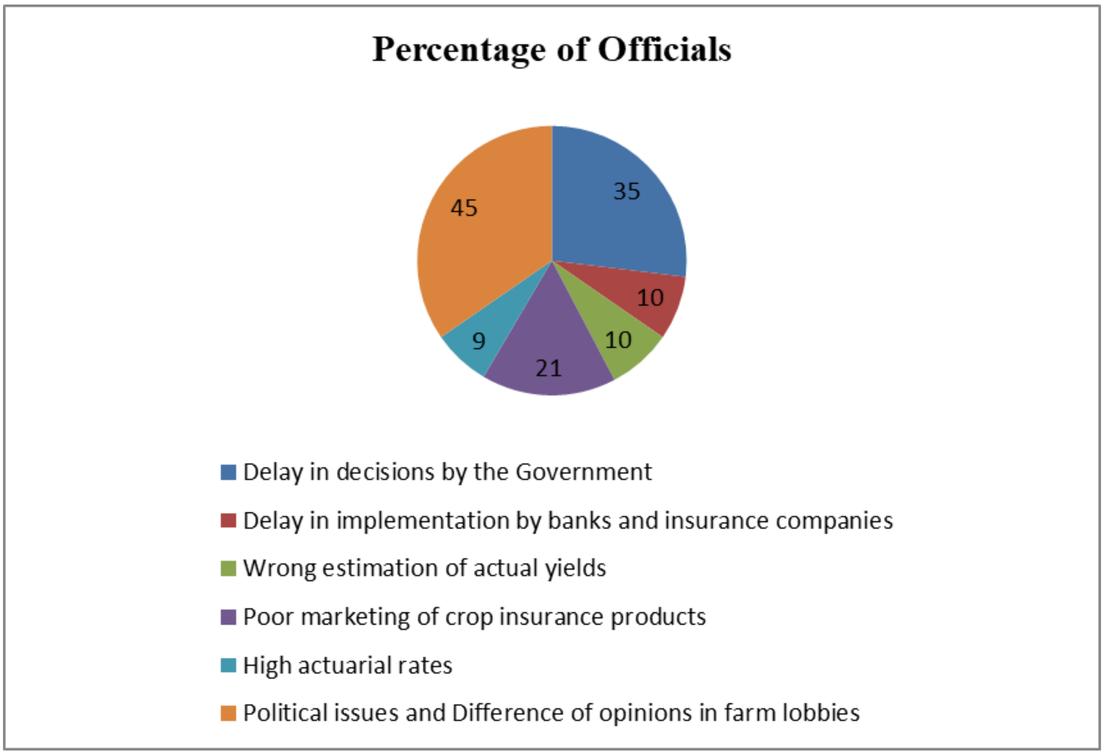
c) Wrong estimation of actual yields: As per most of the farmers, the crop cutting experiments (CCEs) done for the purpose of estimating the actual crop loss was not done fairly.

d) Compulsory Insurance: Most of the farmers were not interested in taking insurance policies but it was made mandatory along with the loan.

e) High premium Rates: According to many farmers, the rate of premium charged by the banks on the disbursed loans was very high and beyond their capacity.

f) Area based approach: It was seen that most of the farmers were not happy with the area based approach. According to them, area based approach did not cover their individual losses.

b) After having interviews with the official of the Banks and Insurance Agencies following problems were identified.



a) Delay in decisions by the Government: It was indicated by some officials that due to unrest in the state, often important decisions regarding the benefit of farmers got delayed.

b) Delay in implementation by banks and insurance companies: Lack of infrastructure and proper guidelines by policy makers made it difficult on the part of banks and insurance companies to do proper implementation.

c) Poor marketing of crop insurance products: Poor and bad marketing of crop insurance products made it even more vulnerable for the farmers to get their crops insured against various risks.

d) High actuarial rates: High actuarial rates made it difficult for the farmers to go for these schemes. Farmers felt burdened as they had to pay the interest on the loan plus the premium on the insurance taken.

e) Political issues and Difference of opinions in farm lobbies: This was another reason because of which the decisions got delayed.

5. Pradhan Mantri Fasal Bima Yojna (PMFBY)

The Pradhan Mantri Fasal Bima Yojna (PMFBY) is a new crop insurance scheme launched by the government. It aims to take forward the crop insurance schemes making it easier for the farmers to avail crop insurance and enhance coverage. The Scheme shall be implemented on an ‘Area Approach basis ‘and shall be compulsory for the farmers who possess a Crop Loan account/KCC account (called as Loanee Farmers) and to whom credit limit is sanctioned/renewed for the notified crop and other farmers whom the Government may decide to include from time to time (Agriculture Production Department, 2016). Under this Scheme the following crops are considered eligible for crop insurance but at different premium rates.

- Horticultural crops
- Commercial crops
- Rabi Crops
- Kharif Crops

The Kharif crop will be given at a 2 percent premium rate. On the other hand, 1.5 percent premium will have to be given on the Rabi crops. While the horticultural and agricultural crops have a 5 percent insurance premium imposed on them. The rest of the premium rates will be shared equally by the central and state government (pmjandhanyojana.co.in, 2016).

Salient Features of PMFBY:

The Pradhan Mantri Fasal Bima Yojna (PMFBY) has come to provide relief to the farmers and is expected to overcome all flaws in the earlier schemes with its new and improved features. Some of the salient features of this new scheme are as follows:

- Farmers to pay lower premiums
- Removes cap on premium
- Coverage of post-harvest losses
- Increased use of digital technology
- Insurance agents
- Not mandatory
- Coverage of losses

The aims of PMFBY (AIC 2016):

According to Agriculture Insurance Company of India, the new scheme Pradhan Mantri Fasal Bima Yojna aims at providing following benefits to the farmers and ensuring sustenance of the same for the wellbeing of the farmers.

- To provide financial support and insurance coverage to the farmers in the occurrence of failure of any of the notified crop as a result of natural calamities, pests & diseases.
- To stabilize the income of farmers to ensure their extension in farming.
- To encourage farmers to adopt new, modern and innovative agricultural practices and exercises.
- To ensure flow of credit to the agriculture sector.
- To ensure no farmer is alone in times of distress.

Risks Covered

Under the PMFBY, the following risks leading to crop loss are covered :-

- Yield losses (standing crops, on notified area basis) due to non-preventable risks, such as: Storm, Hailstorm, Cyclone, Typhoon, Tempest, Hurricane, Tornado etc. Floods, Inundation and Landslide, Drought, Dry spells and Pests/ Diseases.
- Prevented sowing (on notified area basis)
- Post-harvest losses (individual farm basis)
- Localized calamities (individual farm basis):

The objectives of the above mentioned scheme are:

- To provide a measure of financial support to farmers in the event of a crop failure as a result of drought, flood, etc.
- To restore the credit eligibility of farmers after a crop failure, for the next season.
- To support and stimulate production of cereals, pulses and oilseeds.
- To stabilise farmers income.

Pradhan Mantri Fasal Bima Yojna (PMFBY), NAIS and MNAIS

Risk is an inherent part of agriculture. The two go hand in hand. Therefore, it is necessary to protect the farmers from natural disasters and ensure their credit eligibility for the next agriculture season. PMFBY is a pioneering crop insurance scheme which aims at providing an edge over earlier schemes of NAIS and MNAIS. The premium rate in NAIS varies from 1.5 percent to 3.5 percent of sum assured for food crops. In the case of horticultural and commercial crops, actuarial rates are charged. In MNAIS, actuarial premium is charged whereas in PMFBY, uniform premium of only 2percent is to be paid by farmers for all Kharif crops and 1.5 percent for all Rabi crops. In case of annual commercial and horticultural crops the premium to be paid by farmers will be only 5 percent. As far as Government liability and sharing is concerned, in NAIS, premium subsidy of 10 percent is provided to small and marginal farmers. In MNAIS the premium subsidy by government ranges from 'zero to 75%' depending upon the premium slabs whereas in PMFBY the premium rates to be paid by farmers are very low. The balance premium will be paid by the Government to provide full insured amount to the farmers against crop loss on account of natural calamities. There is no upper limit on Government subsidy. Even if balance premium is 90%, it will be borne by the Government.

Earlier, there was a provision of capping the premium rate which resulted in low claims being paid to farmers. This capping was done to limit Government outgo on the premium subsidy. This capping has now been removed and farmers will get claim against full sum insured without any reduction under PMFBY. The use of technology will be encouraged to a great extent in PMFBY as compared to NAIS where it was not allowed. Under PMFBY smart phones will be used to capture and upload data of crop cutting to reduce the delays in claim payment to farmers. Remote sensing will be used to reduce the number of crop cutting experiments. There was no awareness among farmers about NAIS and MNAIS but to make PMFBY a success many workshops and awareness programmes were organised by banks and Krishi Vigyan Kendras so that maximum people can benefit from this new scheme.

Comparative Analysis of PMFBY with NAIS and MNAIS

Sr. No.	Feature	NAIS	MNAIS	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**	**Limit**	**Full**
4	**On Account payment**	**No**	**Yes**	**Yes**
5	**Localised risk coverage**	**No**	**Hailstorm Landslide**	**Hailstorm Landslide Inundation**
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: www.firstpost.com

According to the state government officials, the best aspect of PMFBY is the lower interest rates compared to the earlier schemes. Although it will increase the financial burden on the part of the Government but it is beneficial from the farmers' point of view. This scheme will certainly increase insurance infiltration as far as farm sector is concerned, thereby confirming higher productivity and success for the agriculture sector and for the economy as a whole. The Insurance Regulatory and Development Authority of India (IRDAI) on its part would attempt to provide the vital regulatory environment to support the required progress in this area. It is expected that through an intensive approach the contribution towards crop insurance by the farmers would certainly rise from the current level of 20 per cent. This will not only boost the agricultural sector but also the insurance sector. An allocation of Rs.5500 crore in the 2016-17 budget had been made under Pradhan Mantri Fasal Bima Yojana which was Rs.3185 crore in the previous budget. There was an increase of about 73 per cent in this scheme (Agriculture and Farmers Welfare Ministry, Government of India)

Results and Discussion

Crop insurance schemes have been linked to farm loans to provide comprehensive coverage. But this adds to the burden of farmers as they have to pay both the premium as well as the interest on loans. Besides this it also puts pressure on the banks to meet the targets for the Kisan Credit Cards (KCC).In our survey of farmers in Jammu district it was found that many farmers were not willing to go for the crop insurance schemes. Their complaint was that crop insurance benefit stop in case of default on loan repayment. Such non-payment takes place during a time of financial crisis when they need support.

The present condition of the farmers is not only because of the uncertain weather conditions but also because the crop insurance policies have been unable to provide relief to the farmers. According to insurance officials states like Jammu and Kashmir, Punjab, Haryana, Madhya Pradesh and Uttar Pradesh are seen as states with low insurance cover as compared to southern states where coverage is high. The Pradhan Mantri Fasal Bima Yojna(PMFBY) has come up with considerable additional features in order to provide easy and cheap crop insurance facilities to farmers so as to enable more farmers to avail insurance cover against crop loss on account of natural calamities. The scheme would focus on providing social security, economic security and financial integration to the farmers.

Progress under PMFBY 2017-2018 in respect of Jammu District

(Loanee Farmer)

District	Crop	Sum Insured /Ha (In rupees)	Farmer Covered (In Nos.)	Area Covered (in Ha)	Total Sum Insured (In lacs)	Farmer Share @ 2% (In Lacs)	State Share @3.560 %P @3.3555 %M (In Lacs)	Centre Share @3.560 %	Total Premium (In Lacs)
Jammu	1.Paddy	@Rs.35000	14,472.0	14,545.9	5091.1	101.8	181.2	181.2	464.3
	2.Maize	@Rs.30000	4,233.0	3,587.4	1,076.2	21.5	38.2	38.2	97.9
	Total		18,705.0	18,133.3	6,167.3	123.3	219.4	219.4	562.2

Conclusion

Crop Insurance is a wonderful tool which not only provides a cushion of comfort to the farmers in a situation of crisis but also brings about confidence among the farmers to grow better crops which can increase their overall yield and raise their standards of living. There is a gap between the vision and the mission in the various schemes launched by the Government. The need of the hour is to fill this gap by seriously acting and taking steps towards correction of these shortfalls which are hampering the growth of the national economy in general and the farmers in particular. The new crop insurance scheme "Pradhan Mantri Fasal Bima Yojana" is definitely going to be a boon for the farming community. Marked by affordable premium, full insurance cover and use of mobile/satellite technology this scheme is definitely a great opportunity and challenge for the general insurers. It has been seen that till today, people take insurance as an investment tool rather than a risk mitigating instrument but with this scheme and its initiative along with effective awareness programme by the service providers, it is expected that farmers will develop the habit of insuring their crops. Future studies can look at these schemes in the light of secondary data published over a period of time to make a comparison between the implied and accrued benefits viz. a viz. the previous schemes. Research can be done to see the success and implementation of PMFBY among small and marginal farmers and whether it is successful in changing their perceptions towards crop insurance.

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