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Uncertainty, Risk Management in Agriculture and Crop Insurance in India: Concepts, Schemes and Ideas

Yayati Nayak
Lecturer,
School of Commerce,
Ravenshaw University,
Cuttack

Abstract

Agricultural production and farm incomes in India are frequently affected by natural disasters such as droughts, floods, cyclones, storms, landslides and earthquakes. There are man-made disasters such as fire, sale of spurious seeds, fertilizers and pesticides, price crashes, etc. All these events severely affect farmers through loss in production and farm income and are beyond the control of farmers. Crop insurance is one of the most important alternatives to manage such type of risks by the farmers. Government of India has launched several schemes such as National Agricultural Insurance Scheme (NAIS), Modified National Agricultural Insurance Scheme (MNAIS) Weather Based Crop Insurance Scheme (WBCIS), National Crop Insurance Programme (NCIP) and latest launched Pradhan Mantri Fasal Bima Yojana (PMFBY) for the benefits of farmers. Offering a theoretical review the present study is an attempt made by the researcher to make a study of different crop insurance schemes of India with their salient features. Existing literature and secondary data available from different sources are the steps followed in this endeavour. The study concludes with the recommendations that there is a strong need of the hour to educate rural people with regards to Insurance as a concept and as a product. Although Insurance is the subject matter of solicitation, unprofessional practices are prevalent in India. The innocent people are cheated by unscrupulous advisors who do not explain the benefits of the policy to the buyers of the product. Claims are either delayed or denied by the companies leading to distrust amongst the common people. The complaints and grievances of customers must be redressed so that the trust of the people is not lost. The study also suggests for designing policies especially for the rural people rather than selling the same Polices which are sold to the urban people.

Keywords: Uncertainty, Risk Management, Crop Insurance, Crop Insurance Schemes.

Introduction

India is a land of farmers where the maximum proportion of rural population depends on agriculture and allied activities for their livelihood. However, in the recent years, agricultural GDP share is declining continuously and is about14% of the country's GDP in the year 2014-15. The fallout this is the widening disparities in the per worker earnings in agricultural and non-agricultural sectors. The per capita agricultural GDP (in current prices) was Rs 25,780 while Non agriculture per capita GDP was Rs. 2,08,696 in 2014-15 thereby indicating that per capita agricultural income was around 12% of per capita non-agricultural income. The ratio of Non agricultural to Agricultural per capita GDP which was 3.97 in 1999-2000 increased to 5.38 thereby indicating growing disparity. In India, Agriculture heavily depends on monsoons with 60% of the cropped area being rain-fed. Given the fact that around 75% of rainfall occurs during June-September period, the fate of the Kharif crops depends on the Southwest monsoon. Farming community in India, thus, remain at the mercy of rain-Gods. The distress faced by farmers is clearly evidenced by large number of farmers' suicide committed during periods of deficit rainfall. According to the Ministry of Agriculture, the total of number of suicides committed by farmers for agrarian reasons in the last three years stands at 3313, with four states - Maharashtra, Telangana, Karnataka and Andhra Pradesh - accounting for 3280 of them. So, this alarming number of farmer suicides in India, is a burning issue not only in India, but also throughout the world. So, there is a need to relook the insurance policies available to

the farmers to hedge the risk arises from the natural calamities, like draught, flood and irregular rainfall, etc.

The Indian insurance industry has witnessed a sea change in terms of volume and numbers over the past decade ever since the sector has been opened to private and foreign participation in the year 2000. Further, the Insurance industry is also seen as the "engine of growth" by the Regulator IRDA. The contribution of this segment of the financial system has been very significant, next to the software industry as various reports and surveys reveal. The general public, today in India still see insurance products more like an investment product rather than as a risk mitigation tool. However, even after a decade and a half, insurance penetration and density is dismally low, and not very encouraging. Life insurance to a certain extent is preferred because of the inherent tax incentives inbuilt, but for the general insurance business, people in India have not yet understood the need and importance of protecting themselves against any property and liability risk exposures. However, the insurance companies on their part are making all efforts to ensure availability of insurance through innovative products and innovative distribution channels, but the Indian mindset is still not tuned to buying insurance. Even with the mandated rural and social sector obligation guidelines of the Regulator in place, the growth statistics is not encouraging in rural India too. The need of the hour is make insurance, available accessible and affordable through tailor made policies based on the risk coverage required by people with different needs and capacities. This is particularly important when policies are to be given to people in rural areas with lot of capacity variation and needs variation.

Need for Crop Insurance

Crop insurance is one alternative available to manage risk in yield loss by the farmers. It is a potent mechanism to reduce the overall impact of income loss on the farmer (family and farming). Thus, it is a means of protecting farmers against the probable variations in their yield, resulting from uncertainty of practically all natural factors beyond their control such as rainfall (drought or excess rainfall), flood, hails, other weather variables like (temperature, sunlight, wind), the pest infestation, etc. It is a financial tool to minimize the impact of loss in farm income by factoring in a large number of uncertainties occurring which affect the crop yields of the farmers. As such it is a risk management alternative process, where the production risk element is transferred to another party at a cost, which is called premium. To design and implement an appropriate insurance programme for the agriculture is therefore very complex process and a challenging task. There are two approaches to crop insurance, namely, the individual approach method, where yield loss on individual farms forms the basis for indemnity payment, and the homogeneous area approach method, where a homogeneous crop area is taken as a unit for assessment of yield and the payment of indemnity. In fact in both the cases the reliable and the dependable yield data for past 8- 10 years are needed for the fixing premium on actuarially sound basis.

Review of Literature

Kattarkandi Byjesh, Uttam Deb and Cynthia Bantilan (2014) in their research article, "Rainfall Insurance in India: Does it Deal with Risks in Dry land Farming?" they have studied rainfall insurance schemes and its operational modalities such as eligibility criteria, payment of premium, benefit structure and payouts, and technical hassles. It examined the hypothesis that low spread of rainfall insurance was linked with the situation where prospective buyers were unable to relate the product to their regular exposure. This study also underlines incongruity comparing the variation in longitudinal actual village data and reference weather data (mandal level3) that were used to calculate strike, exit and payouts to the farmers across six villages of semi-arid tropics (SAT) region. It identified several challenges on the ground in its capacity to cover risk among the farmers. The challenges include lack of proper awareness among farmers, absence of reliable weather datasets, misinformation on insurance contract and processes, exclusion of high risky crops from the rainfall insurance coverage. Real time calculation of risk benefits with existing policy found that existing design cannot appropriate to meet the loss, if incurred during the climate extremes. Hence, there is a need to relook at the insurance policy design in terms of efficiency. The study also argued that with continuous government support and by drawing on both quasi government and private players into the process for greater transparency and design to improve effectiveness of this initiative.

Robert Aidoo, James Osei Mensah, Prosper Wie, Dadson Awunyo-vitor (2014) in their research article, "Prospects of Crop Insurance as a Risk Management Tool among Arable Crop Farmers in Ghana" they wanted to assess the willingness of farmers to adopt crop insurance and the critical factors that influence the premium they are willing to contribute towards such a scheme. Two out of the eleven (11) agricultural operational areas in the Sunyani Municipality were selected purposively due to their dominance in maize and cassava production. Four (4) communities were randomly selected from each operational area through balloting and fifteen farmers were then selected from each community through the use of random numbers. A total of 120 farmers were selected from the Municipality for personal interviews to elicit primary information with the help of a structured questionnaire. A binary logistic regression model was used to identify the factors that influence farmers' willingness to adopt crop insurance as a risk mitigation strategy. A double logarithmic multiple regression model was employed to determine the factors that influence the premium farmers were willing to pay towards a crop insurance scheme. Evidence from the study indicates that majority (76%) of farmers were willing to adopt crop insurance; age of farmer, land tenure system practiced and educational level were found to be the key drivers of crop insurance uptake, ex ante. The study revealed that government subsidy would be required for such an insurance scheme since the premium farmers pledged to pay was quite low and likely to be uneconomical from the perspective of private insurers. It was revealed that on-farm income,

farm size, land tenure, educational level and amount of savings by farmers significantly influenced the premium farmers pledged to pay towards a crop insurance scheme. The study recommended periodic training and education of farmers to improve their knowledge on crop insurance as a risk management tool and the need for farmers to save in order to enhance the uptake of crop insurance when it is introduced in the study area.

Phillip Daniel Daninga, Zhang Qiao (2014) in their research article, "Factors affecting attitude of Farmers towards drought insurance in Tanzania", they assessed farmers' attitude towards drought insurance in Bunda district. The sample of the conducted cross sectional survey consisted of 410 respondents. A five point likert scale was generated and included in the questionnaires. Analysis was done using Factor analysis and reliability tested by Cronbanch's alpha.Factors that affected farmers' attitudes towards drought insurance were compensation fairness of drought insurance, convenience of service delivery of drought insurance, program appropriateness, and government's protection to farmers.Farmers' attitudes toward the program were negative. Farmers' attitudes and perception should be incorporated in developing effective drought insurance in Tanzania.

Dr. S.M.Uvaneswaran T. Mohanapriya (2014) in their research work, "Farmers' Perception and Awareness about Crop Insurance in Tamilnadu – A Descriptive Analysis", they considered Agriculture is the back bone of the Indian economy. Government has launched several schemes like National Agricultural Scheme and Weather Index Based crop insurance schemes for protecting the farmers against risks in agriculture. Due to the risk of loss in agriculture the farmers are making suicide attempts, selling their properties or the properties are seized by the Bank and financial institutions for the loan availed by the farmers. This is due to lack of awareness about the risk management techniques among the farmers. The research was conducted among the 150 farmers of Erode District to assess the farmer's perception about the various facts of crop insurance schemes.

Kiyanoush Ghalavand, Karim. MH (Karim Koshteh) and Abolhassan Hashemi (2012) in their research paper, "Agriculture Insurance as a Risk Management Strategy in Climate Change Scenario: A study in Islamic Republic of Iran", they wanted to develop a realistic framework and concrete roadmap for introducing crop insurance as a risk management strategy for the farmers in Iran. The study is based on both secondary and primary data and information. Survey was the research method, and data was collected by questionnaire and different instruments, such as survey questionnaire, FGDs, interview schedule, inception workshop and roundtable discussions with stakeholders at different levels. The three survey districts were: Golestan Province (as a flash flood area, north of Iran), Khuzestan Province (as a drought area, south of Iran) and Khuzestan Province (as a cyclone and flood-prone area, south of the country). The results revealed that four independent variables explain adoption of Drought insurance. Consult with other farmers is the main independent variable.

Mohammed Nasir Uddin , Wolfgang Bokelmann and Jason Scott Entsminger (2014), in their research article, "Factors Affecting Farmers' Adaptation Strategies to Environmental Degradation and Climate Change Effects: A Farm Level Study in Bangladesh", they have examined the adaptation of agriculturalists to degrading environmental conditions likely to be caused or exacerbated under global climate change. It examines four central components: (1) the rate of self-reported adoption of adaptive mechanisms (coping strategies) as a result of changes in climate; (2) ranking the potential coping strategies based on their perceived importance to agricultural enterprises; (3) identification the socio-economic factors associated with adoption of coping strategies, and (4) ranking potential constraints to adoption of coping strategies based on farmers' reporting on the degree to which they face these constraints. As a preliminary matter, this paper also reports on the perceptions of farmers in the study about their experiences with climatic change. The research area is comprised of three villages in thecoastal region (Sathkhira district), a geographic region which climate change literature has highlighted as prone to accelerated degradation. One-hundred (100) farmers participated in the project's survey, from which the data was used to calculate weighted indexes for rankings and to perform logistic regression. The rankings, model results, and descriptive statistics, are reported here. Results showed that a majority of the farmers self-identified as having engaged in adaptive behavior. Out of 14 adaptation strategies, irrigation ranked first among farm adaptive measures, while crop insurance has ranked as least utilized. The logit model explained that out of eight factors surveyed, age, education, family size, farm size, family income, and involvement in cooperatives were significantly related to self-reported adaptation. Despite different support and technological interventions being available, lack of available water, shortage of cultivable land, and unpredictable weather ranked highest as the respondent group's constraints to coping with environmental degradation and change effects. These results provide policy makers and development service providers with important insight, which can be used to better target interventions which build promote or facilitate the adoption of coping mechanisms with potential to build resiliency to changing climate and resulting environmental impacts.

Lopamudra Mohapatra & R K Dhaliwal (2014), in their research work, "Review of Agricultural Insurance in Punjab State of India", they have examined various agricultural schemes operating in the state of Punjab microscopically. The design for the study was descriptive research. The focus of the review was on the functional agricultural insurance schemes in Punjab state microscopically and macroscopically in the country. India has administered crop insurance scheme since 1972 of which all the variants of the scheme introduced from time to time had various flaws. Nevertheless India is not alone where public crop insurance has not been successful. In both developed and developing countries such insurance schemes have incurred losses without

offering an effective product. The major role player in the public sector companies offering crop insurance is Agricultural Insurance Company (AIC). The private role players are IFFCO Tokio General Insurance Company Ltd, ICICI Lombard Insurance Company Ltd. The major insurance running in the country is NAIS but was not Punjab state since the paddy – wheat crops grown in the state are less risky crop in the wake of assured irrigation and high input agriculture. Weather based insurance products have got a good scope in the state to act as a tool of risk mitigation. The post green revolution era of Punjab State needs to address the challenge of diversification. The agriculture insurance can act as a motivation for the farmers of Punjab to go for diversification by setting themselves free from the risks involved and the loss in income which they shall face. Crop insurance needs to be strongly taken up at the policy level; with well defined risk to Punjab's agriculture, well devised products for these risks in current scenario.

Research Gap

The present survey of related literature indicates that a few studies were conducted to study various crop insurance schemes in India and the salient features of each of them. The previous studies were emphasising more on the performance evaluation of National Agricultural Insurance Scheme (NAIS). These studies were concerned with the suggestions and recommendations for the further improvement of the existing NAIS. With this backdrop it is an attempt made by the researcher to make an overall study of all crop insurance schemes including the recently launched Pradhan Mantri Fasal Bima Yojana (PMFBY), a uniform 'one nation-one scheme' type crop insurance scheme.

Objectives of the Study

The present study has the following objectives.

1. To study various Crop insurance schemes in India with their salient features.
2. To make a comparison between Pradhan Mantri Fasal Bima Yojana (PMFBY) and other crop insurance schemes in India.

Research Methodology

The data for the present study has been collected purely from the secondary sources which include various governmental reports, articles, periodicals, books, etc. Existing literature and secondary data available from assorted sources are the steps followed in this endeavour.

Objectives of Crop Insurance Schemes in India

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

Crop Insurance Schemes in India: An Overview

1. Program based on 'individual' approach (from 1972 to 1978)
2. Pilot Crop Insurance Scheme (PCIS) (from 1979 to 1984)
3. Comprehensive Crop Insurance Scheme (CCIS) (from 1985 to 1999)
4. National Agriculture Insurance Scheme (NAIS) (from Rabi 1999-2000)
5. Modified National Agriculture Insurance scheme (MNAIS) (from Rabi 2013-14)
6. Weather Based Crop Insurance Scheme (WBCIS) (from Rabi 2013-14)
7. Coconut Palm Insurance Scheme (CPIS) (from Rabi 2013-14)
8. National Crop Insurance Programme (NCIP) (from Rabi 2013-14)
9. Pradhan Mantri Fasal Bima Yojana (PMFBY) (from Kharif 2016)

Program Based on 'Individual' Approach (1972-1978)

The first ever crop insurance program started in 1972 on H-4 cotton in Gujarat, and was extended later, to a few other crops & states. The program by the time its wound up in 1978, covered merely 3,110 farmers for a premium of INR 454,000 and paid claims of INR 3.79 millions.

Pilot Crop Insurance Scheme (1979-1984)

PCIS was introduced on the basis of report of Prof. V.M. Dandekar and was based on the 'Homogeneous Area' approach. The scheme covered food crops (cereals, millets, pulses), oilseeds, cotton, & potato; and was confined to borrowing farmers on a voluntary basis. The scheme was implemented in 13 states and covered about 627,000 farmers, for a premium of INR 19.70 millions and paid indemnities of INR 15.71 millions.

Comprehensive Crop Insurance Scheme (1985-1999)

The scheme was an expansion of PCIS, and was made compulsory for borrowing farmers. Sum insured which was initially 150 percent of the loan amount, reduced to lower of 100 percent of the loan amount or INR 10,000 per farmer. Premium rates were 2 percent of the sum insured for cereals & millets and 1 percent for pulses & oilseeds, with premium and claims, shared between the Centre & States, in 2:1 ratio. The scheme when wound up in 1999, was implemented in 16 States & 2 Union Territories and cumulatively covered about 76.30 million farmers, for a premium of INR 4035.60 millions and paid claims of INR 23190.00 millions.

National Agriculture Insurance Scheme (Rabi 1999-2000)

The National Agricultural Insurance Scheme (NAIS), with the aim to increase coverage of farmers, crops and risk commitment, was introduced in the country from *Rabi* 1999-2000 replacing the erstwhile Comprehensive Crop Insurance Scheme (CCIS). The main objective of the Scheme was to protect the farmers against the crop losses suffered on account of natural calamities, such as, drought, flood, hailstorm, cyclone, pests and diseases. The Scheme was implemented by the Agriculture Insurance Company of India Ltd. (AIC). NAIS was to be discontinued after implementation of National Crop Insurance Programme (NCIP) from *Rabi* 2013-14 but on representation of some States it has been continued during 2013-14 and 2014-15.

Salient Features of National Agricultural Insurance Scheme (NAIS)

1. Loanee Farmers are covered on compulsory basis in notified areas for notified crops whereas for non-loanee farmers, the scheme was voluntary.
2. Covers all the food crops (cereals, millets and pulses), oil seeds and annual commercial/horticulture crops, in respect of which past yield data is available for adequate number of years.
3. The administered premium rates are charged which range from 1.5 percent to 3.5 percent for food and oil seeds for normal sum insured and indemnity level.
4. 10 percent subsidy is available to small and marginal farmers.
5. Central Government and State Governments shares on 50:50 basis of claims over and above 100 percent of premium collected in case of food crops and oil seeds, bank service charge and 20 percent of administrative expenses.

Modified National Agriculture Insurance Scheme (Rabi 2013-14)

To improve further and make the Scheme easier and more farmer friendly, a proposal on Modified National Agricultural Insurance Scheme (MNAIS) was prepared and was approved by Government of India for implementation on pilot basis in 50 districts from *Rabi* 2010-11 season. After evaluation of impact of pilot, the scheme is being implemented as a full-fledged component of NCIP from Rabi 2013-14.

Salient Features of National Agricultural Insurance Scheme (MNAIS)

1. Reduction in unit area of Insurance to village/village panchayat.
2. Actuarial premium rates for insuring crops and hence claims liability is on Insurance Company.
3. Private insurance companies have also been involved for implementation to provide competitive service to the farmers.
4. Higher subsidy in premium ranging up to 75 percent to all farmers.
5. More proficient basis for calculation of threshold yield (average yield of last 7 years excluding up to two years of declared natural calamity).
6. Higher minimum indemnity level of 70 percent instead of 60 percent in NAIS.
7. Indemnity amount for prevented sowing/planting risks and for post harvest losses due to cyclones.
8. On account payment up to 25 percent of likely claims as advance for providing immediate relief to farmers during adverse season.
9. An individual assessment of claims in case of specified localized calamity viz. hailstorm, landslide.
10. Uniform seasonality norms for both loanee & non loanee farmers.

Weather Based Crop Insurance Scheme (Rabi 2013-14)

With the objective to bring more farmers under the fold of Crop Insurance, a Pilot Weather Based Crop Insurance Scheme (WBCIS) was launched in 20 States in 2007. The Scheme provides insurance protection to farmers against adverse weather incidences, such as deficit and excess rainfall high or low temperature, humidity etc. WBCIS is implemented as a full-fledged component of NCIP from *Rabi* 2013-14.

Salient Features of Weather Based Crop Insurance Scheme (WBCIS)

1. Loanee farmers are covered on compulsory basis in notified areas for notified crops whereas for non-loanee farers scheme is voluntary.
2. Actuarial rates of premium are capped at 10 percent during Kharif and 8 percent during for food crops and oil seeds. For annual, commercial/horticultural crops, cap of 12 percent on actuarial rates of premium is applicable.
3. Subsidy of upto 50 percent of the premium is provided by the Government which is shared by Centre and State Government on 50:50 basis.
4. Private Insurance Companies have been involved for implementation besides the Agricultural Insurance Company of India (AIC) Limited.

Coconut Palm Insurance Scheme (Rabi 2013-14)

The Coconut Palm Insurance Scheme (CPIS) was approved for implementation on pilot basis for the years 2009-10 onwards in the selected areas of Andhra Pradesh, Goa, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu and West Bengal. Now the CPIS is being implemented as a full-fledged component scheme of NCIP from Rabi 2013-14 in all Coconut growing States. Fifty percent of the premium is contributed by Government of India, 25 percent by the concerned State Government and the remaining 25 percent by the farmer. The CPIS is administered and implemented by the Coconut Development Board (CDB).

Under the Scheme, 70,903 farmers were covered for a premium of Rs.255.67 lakh against the claims paid of Rs.302.58 lakh till December 2014.

National Crop Insurance Programme (Ncip)

To make the Crop Insurance Schemes more farmer friendly, a restructured Central Sector Scheme in the name of 'National Crop Insurance Programme' (NCIP) was introduced from *Rabi* 2013-14. The existing MNAIS, WBCIS and CPIS were merged under this programme with various improvements and changes for implementation throughout the country. However, on the basis of requests received, some States have been allowed to implement NAIS during 2013-14 and 2014-15.

The coverage of NCIP in terms of farmers and area insured has been projected to the level of 50 percent each from the existing level of about 25 percent and 20 percent respectively by the terminal year 2016-17 of the Twelfth Plan. The coverage under CPIS is projected at 25 percent of coconut growers during 2013-14 with increase of 5 percent each year during remaining years of Twelfth Five Year Plan.

Salient Features of the National Crop Insurance Programme (NCIP)

1. Implementation is made compulsory for loanee farmers.
2. Two indemnity levels of 80 percent & 90 percent would be available instead of three i.e. 70 percent, 80 percent & 90 percent under MNAIS.
3. Under WBCIS, provision for add-on/ index plus products for horticultural crops for compensating losses due to perils of hailstorm, cloudburst etc.

4. For successful implementation of WBCIS, 5000 AWS will be set-up in the country through the model of Private Public Participation (PPP).
5. Pilots for use of modern technology like Remote Sensing Technology (RST)/ Satellite imageries to supplement the yield assessment through CCEs.
6. Insurance eligibility condition of having at least 10 healthy palms by farmer has been reduced to 5 palms under CPIS.
7. Increased Sum Insured under CPIS.
8. Loss intimation time has been increased from 7 days to 15 days under CPIS.

Pradhan Mantri Fasal Bima Yojana (PMFBY)

Pradhan Mantri Fasal Bima Yojana (PMFBY) is the new crop damage insurance scheme that has been approved by the Union Cabinet in January, 2016. It is one of the major initiatives and Farmers Friendly launched by the Present BJP government for the farmer's welfare. A destiny changer for the farmers of India. It clearly indicates how our present government is seriously concerned for alleviating the problems of our farming communities in India and wants to provide every help to them always, who are the back bone of Indian Economy. New crop insurance scheme will bring about a major transformation in the lives of farmers. A great initiative to transform Indian farming life style. The Scheme is a Laudable measure taken by Govt., as it is focussing more on Crop Insurance which is the most vulnerable part of agriculture. The scheme is Inclusive and will surely help the farmers of our country at the time of distress. The new scheme is significant as the country is facing drought for the second straight year due to poor monsoon rains and the government desire to enhance insurance coverage to more crop area to protect farmers from vagaries of monsoon.

It will replace the existing two crop insurance schemes National Agricultural Insurance Scheme (NAIS) and the Modified form of NAIS. The new scheme will come into force from the Kharif season starting in June this year. The scheme covers kharif, rabi as well as annual commercial and horticultural crops. For Kharif crops, the premium charged would be up to 2% of the sum insured. For Rabi crops, the premium would be up to 1.5% of the sum assured. For annual commercial and horticultural crops, premium would be 5 per cent. The remaining share of the premium will be borne equally by the central and respective state governments. There will be one insurance company for the whole state. Private insurance companies will be added along with Agriculture Insurance Company of India Limited (AICL) to implement the scheme. Losses covered Apart from yield loss, the new scheme will cover post-harvest losses also. It will also provide farm level assessment for localised calamities including hailstorms, unseasonal rains, landslides and inundation.

How will the Scheme Benefits the Farmers?

1. With Low Premium rates and Total Coverage of Insurance of Crops, Farmers will benefit financially.
2. Widening of the term Disaster (like Flooding of Crops and Damage after Harvest) will enlarge the Protection base and hence beneficial to farmers.
3. Post Harvest Losses are also included, so it will provide safety and confidence to the Farmers.
4. Time Bound Payment of Losses will prevent delays and further worsening of Farmer's distress condition.
5. Will Reduce Farmers' Suicide (Since Crop Failure and Financial Distress earlier was undressed but now ensured).
6. Easy usage of technology like mobile phone, quick assessment of damage and disbursement within a time frame.

Pradhan Mantri Fasal Bima Yojana (PMFBY) and Other Crop Insurance Schemes: A Comparison

The new scheme is different from earlier schemes on the following grounds.

1. It is open to all farmers but not mandatory to anyone.
2. It is optional for loanee as well as non-loanee farmers.
3. It has so far lowest premium.
4. The existing premium rates vary in between 2.5% and 3.5% respectively for kharif crops and 1.5% for rabi crops respectively—but the coverage was capped, meaning farmers could, at best, recover a fraction of their farming losses. The farmers' premium has been kept at a maximum of 2 per cent for food grains and up to 5 per cent for annual commercial horticulture crops. For rabi crops, it is 1.5%. The balance premium will be paid by the government to furnish full insured amount to the farmers. Since there is no upper cap on government given subsidy, even if the balance premium is about 90 percent, the government will bear it.
5. This scheme provides full coverage of insurance. While NAIS had full coverage, it was capped in the modified-NAIS scheme. It also covers the localized risks such as hailstorm, landslide, inundation etc.
6. Earlier schemes did not cover inundation. It provides post harvest coverage. The NAIS did not cover while the modified NAIS covered only coastal regions.

Conclusion

Crop insurance is important in a country like India with millions of farmers largely dependent on monsoon for the success of their crops. Monsoon also has a bearing on the production costs and agricultural production in respect of irrigated areas too in the country. The need for crop insurance has to be seen in the light of improved security for farmers and an overall boost to the agricultural sectors in particular, the rural economy at large and growth of the country in general. There is a gross mismatch between the risk associated and the profit margins in the agricultural economy making it necessary for subsidy inputs to the farmers through the Governmental mechanism. The recent launch of the "Pradhan Mantri Fasal Bima Yojana" which is marked by affordable premium, full insurance cover and use of mobile/satellite technology is definitely a great opportunity and challenge for the general insurers. With this initiative along with effective awareness programme by the service providers, it is expected that farmers will develop the habit of insuring their crops. This will certainly increase insurance

penetration as far as farm sector is concerned, thereby ensuring higher productivity & prosperity for the agriculture sector - in turn for the economy as a whole. IRDAI on its part would endeavour to provide the necessary regulatory environment to support the required development in this area. It is hoped that through a concerted approach, the subscription to the crop insurance in the country by the farmers would go from the current level of 20% to much larger levels that are needed not just for the farmers alone but also to lend viability to the lending institutions working in the area of rural credit. This will not only boost the agricultural sector but also the Insurance sector more particularly the General Insurance segment.

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