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Crop Insurance in India

Commerce

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Dr. R. D. Mehta

Vice - Principal, VMV Commerce, JMT Arts & JJP Science College, Wardhaman Nagar, Nagpur Maharashtra, India

ABSTRACT

Crop insurance is a financial mechanism to minimize the impact of loss in farm income by factoring in a large number of uncertainties which affect the crop yields. National Agricultural Insurance scheme (NAIS) OR Rashtriya krishi Bima Yojana Weather Based Crop Insurance Scheme Farm Income insurance scheme (FIIS) are the different scheme which helps the farmer at the time of uncertainty.

INTRODUCTION

All over the world agriculture is synonymous with risk and uncertainty. Agriculture contributes to 24% of the GDP and any change has a multiplier effect on the economy as a whole. Economic growth and agricultural growth are inextricably linked to each other. Crop insurance helps in stabilization of farm production and income of the farming community. It helps in optimal allocation of resources in the production process. Indian Government has been concerned about the risk and uncertainty prevalent in agriculture. As all of us are aware about the unfortunate deaths of farmers in Maharashtra who got caught in a debt trap and the devastating affect it had on their families. In this paper, we try to trace the genesis of the crop insurance scheme and its effectiveness.

Farmers face floods, drought, pests, diseases and a plethora of others natural disasters. The weather is their greatest adversary, something that can never be controlled by man. Yet, farming has been in existence since the caveman turned his spear. Farming has come a long way since then; nevertheless; farmer are still at the mercy of the heaven. Water, air, sunlight and soil are the four factors, which contribute to successful farming. The first three element, are directly connected with weather conditions right from preparatory tillage to the stocking of the produce, making farming risky.

Farming in India is largely a gamble in weather condition. Crop insurance is risk management tool that farmers can use in today's agricultural world. For a premium, farmers can pass their weather- related risk to the third part y.

Investment in agriculture is from various sources and the sum total of the same aggregate to thousands of crores of rupees. Enormous investment in agriculture, and export value of farm produce are thus at risk in India.

History of Crop Insurance in India:

In a country like India, where crop production has been subjected to vagaries of weather and large-scale damages due to attack of pests and diseases, crop insurance assumes a vital role in the stable growth of the sector.

An All-Risk Comprehensive Crop Insurance Scheme (CCIS) for major crops was introduced in 1985, coinciding with the introduction of the Seventh-Five-year Plan and subsequently replaced by National Agricultural Insurance Scheme (NAIS) i.e. 1999-2000. These Schemes have been preceded by years of preparation, studies, Planning experiments and trials on a pilot basis.

Agriculture Insurance Company of India Limited (AIC): Agriculture Insurance Company of India Limited (AIC) has been formed by the Government of India consequent to the announcement by the Hon'ble Union Finance Minister in his General Budget Speech F.Y. 2002-03 that to sub serve the needs of farmers better and to move towards a sustainable actuarial regime, it was proposed to set up a new Corporation for Agriculture Insurance

AIC has taken over the implementation of National Agricultural Insurance Scheme (NAIS) which until FY03 was implemented by General Insurance Corporation of India. In future, AIC would also be transacting other insurance businesses directly or indirectly concerning agriculture and its allied activities. The AIC has introduced, on a pilot basis, a new rainfall index based insurance product called Varsha Bima in four states, viz. Andhra Pradesh, Karnataka, Rajasthan and Uttar Pradesh covering 21 rain gauge stations and crops like cereals, pulses and oilseeds during kharif 2004.

ABOUT CROP INSURANCE

Crop insurance is a means to protecting the cultivators against financial loss on account of anticipated crop-loss arising out of practically all natural factors beyond their control such as natural fire, weather, floods, pests, diseases etc. The sum insured could be the total expenditure or a multiple of it or a proportion of expected income from crop(s) for which premium is paid. The indemnity (claims payable against the paid out of pocket expenses) is payable on the basis of shortfall in average yield from the guaranteed yield (threshold yield).The claims are paid after the loss in yield is ascertained. Weather based crop insurance is another avenue for transferring production risk to the insurer. It aims to mitigate the hardship of the insured farmer against the likelihood of financial loss on account of anticipated crop loss resulting from incidence of adverse conditions of weather parameters like rainfall, temperature, frost, humidity etc. While crop insurance specifically indemnifies the cultivator against shortfall in crop yield, weather insurance is based on the fact that weather conditions affect crop yield even when a cultivator has taken all the care to ensure good harvest. Studies of historical correlation of crop yield with weather parameters help us in developing weather thresholds (triggers) beyond which crop starts getting affected adversely. Payout structure may be developed using the weather triggers to compensate cultivators to the extent of losses deemed to have been suffered by them. Actual loss in yield or income is not ascertained for eligibility for claims. In other words, weather insurance uses weather parameters as 'proxy' for crop yields in compensating the cultivators for deemed crop losses due to reduction in yield.

Need for Crop Insurance

Crop insurance is one alternative to manage risk in yield loss by the farmers. It is one of the important tools, which helps in reducing the impact of income loss on the farmer (family and farming). Crop insurance is a means of protecting farmers against the variations in yield resulting from uncertainty of practically all natural factors beyond their control such as rainfall (drought or excess rainfall), flood, hails, other weather variables (temperature, sunlight, wind), pest infestation, etc.

- Crop insurance is a financial mechanism to minimize the impact of loss in farm income by factoring in a large number of uncertainties which affect the crop yields.
- As such it is a risk management alternative where production risk is transferred to another party at a cost called premium.
- The weather based crop insurance uses weather parameters as proxy for crop yield in compensating the cultivators for deemed crop losses
- It provides a good alternative both to farmers and government.

- Rainfall insurance is a specific form of weather insurance. As such weather insurance is not yield insurance while crop insurance is. In both the cases cultivators pass risk in yield to another party for a premium.

The Agriculture Insurance Company of India Limited (AIC) offers yield-based and weather-based crop insurance programs in almost 500 districts of India. It covers almost 20 million farmers, making it the biggest crop insurer in the world in number of farmers served. Agriculture Insurance Company of India Limited is a limited company with headquarters at New Delhi, India. AIC aims to provide insurance coverage and financial support to the farmers in the failure of any of the notified crop as a result of natural calamities, pests and diseases to restore their creditworthiness for the ensuing season; to encourage the farmers to adopt progressive farming practices, high value in-puts and higher technology; to help stabilize farm incomes, particularly in disaster years. The plan provides comprehensive risk insurance for yield losses due to natural fire and lightening, storms, hailstorms, cyclone, typhoon, tempest, hurricane, tornado flood, inundation, landslide, drought, dry spells, pests/diseases, etc. AIC has 17 regional offices in state capitals across India. AIC sells agriculture and allied insurance products and schemes. A significant amount of business is derived out of the yield-based "National Agriculture Insurance Scheme (NAIS)" and the weather-based "Weather Based Crop Insurance Scheme (WBCIS)".

The AICI has introduced, on a pilot basis, a new rainfall index based insurance product called Varsha Bima in four states, viz., Andhra Pradesh, Karnataka, Rajasthan and Uttar Pradesh covering 21 rain gauge stations and crops like cereals, pulses and oilseeds during kharif 2004. NABARD is actively involved through its concerned ROs and DDMs in successful launching and marketing of the scheme.

Benefits Expected from the Scheme
The scheme is expected to:

- Be a critical instrument of development in the field of crop production, providing financial support to the farmers in the event of crop failure,
- Encourage farmers to adopt progressive farming practices and higher technology in Agriculture.
- Help in maintaining flow of agricultural credit,
- Provide significant benefits not merely to the insured farmers, but, to the entire community directly and indirectly through spill-over and multiplier effects in terms of maintaining production and employment, generation of market fees, taxes etc.
- Streamline loss assessment procedures and help in building up huge and accurate statistical base for crop production.

The scheme has been administered by the Ministry of Agriculture and was initially Implemented by General Insurance Corporation of India and from Rabi 2003-04 by Agricultural Insurance Company of India Limited on behalf of MOA.NAIS is to cover food crops, oilseeds, sugarcane, cotton, potato and other commercial and horticultural crops. It is available to all states opting for implementation for at least three years. The Scheme covered the farmers, sharecroppers and tenants growing notified crops in notified areas on compulsory basis for loanees and voluntary basis for non-loanees. The scheme is in operation since then. However, so far the scheme has been adopted by 23 states and two union's territories. The scheme had covered more than 110 million farmers and 11.42 million hectares of cropped area in 2008. The premium collected was Rs.36673 million which Rs.3055 million was subsidy. Against this, Rs.98817 million was the Indemnity paid and another Rs.2955 million was the indemnity yet to be paid. In all, 27.96 million farmers were the beneficiaries. The subsidy is more than 8 per cent of the total premium while claims are 2.8 times the premium (3, 7 & 12). Not all the loanee farmers in the states were happy with the mandatory aspect of the scheme. Similarly non-loanee farmers came forward for selected crops only. They perceived a number of problems with the product (8 & 9). The fixing of threshold yield on the basis of past performance ignores the future improvement and yield estimation process for average yield on the basis of crop cutting experiments are not easy for them to comprehend. The average yield benefits the poor performers more than the good performers. Delay at various points in the implementation adds to the disappointment of the insured. For the insurers viability of the scheme is the major concern. Monitoring has been the most difficult job for them.

IMPORTATNT SHCEMES OF CROP INSURANCE
National Agricultural Insurance scheme (NAIS) OR Rashtriya krishi Bima Yojana
The National Agricultural Insurance Scheme (NAIS) was introduced from 1999-2000 replacing the erstwhile Comprehensive Crop Insurance Scheme is to protect the farmer against crop losses suffered on account of natural calamities such as drought, flood ,hailstorm, cyclone, fire pests and disease. NAIS is in operation since Rabi 1999-2000 and is being implemented by 23 states and 2 UTs. So far, 590.55 lakhs of farmers have been covered under the scheme.

The new scheme is now available to all farmers-loanee and non loanee irrespective of their size of holding. It envisages coverage of all the food crops (cereals, millets and pulses) , oilseeds and annual horticultural/commercial crops, in respect of which past yield data is available for adequate number of years. Among the annual commercial/horticultural crops-seven crops namely, sugarcane, potato, cotton, ginger, onion, turmeric and chilies are presently covered. All other annual horticulture and commercial crops will be placed under insurance cover in the third year subject to the condition of availability of past yield data.

The new scheme would operate On the basis of an area approach: - defined areas for each notified crop for widespread calamities.

On an individual basis: - for localized calamities such as hailstorm, landslide, cyclone and flood.

Individual based assessment in case of localized calamities would be implemented in limited area, on experimental basis initially and, shall be extended in the light of operational experience gained.

Under the new scheme each participating State/UT is required to reach the level of Gram Panchayat as the unit of insurance in a period of three years.

The Government has also decided to set up an exclusive organization for implementation of the new scheme in due course. Until such time as the new set up is created, the General Insurance Corporation of India (GIC) will continue to function as the implementing Agency.

The premium rate of Bajra Oilseed are 3.5% of sum insured or actuarial rate whichever is less while for cereals, other millets and pulses, the premium rates are 2.5% of sum insured or actuarial rate whichever is less. In the case of commercial or horticultural crops, actuarial rate will be charged. Small marginal farmers will be entitled to subsidy of 50% of the premium charged from them to be shared equally by State/UT and Central Government.

The working of NAIS is summarized as under.

Season	No. of farmers (in millions)	Area covered (in million hectares)	Sum Insured (Rs. crores)	Premium Paid (Rs. crores)	Total Claims (Rs. crores)
1999-2000	9.0	14.0	7,260	212	1230
2000-2001	10.6	15.9	3,900	285	528
2003-2004	17.1	36.3	15,520	520	500
2006-2007	17.9	27.3	21,750	610	2,255
2008-2009	34.7	210.9	1,48,278	4,427	15,230

(2010 to 2012 Data not available)

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During 2008-2009 135 millions farmers were covered and the sum insured was Rs.1, 48,278 crores and insurance charges were Rs.4.4427 crores. The total claims during the year came to Rs. 15, 230 crores.

In respect of annual commercial / horticulture crops, the premium rates are charged on actuarial basis. The actuarial premium rates are worked out on the basis of yield of the past ten years as per the data provided by the State Government concerned. The variation is high due to high variation in the yield during the specified period i.e. ten years. The premium rates, for example, are high in the case of groundnut and cotton (risky crops) because of high variation in yield whereas in case of sugarcane and wheat, the rates are comparatively low since these are stable crops. The scheme stipulates transition of premium rates from flat to actuarial in case of cereals, millets, pulses and oilseeds in a period of five years and till such periods; claims beyond 100% of premium are borne by the Government.

In the case of annual commercial / horticulture crops, the implementing agency is to bear all normal losses i.e. claims up to 150% of premium in the first three years and 200% of premium thereafter subject to satisfactory claim experience. The small and marginal farmers are entitled to a subsidy of 50% of the premium charged. The scheme provides for compulsory coverage in respect of loanee farmers whereas non-loanee farmers may opt for insurance cover on voluntary basis.

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Weather Based Crop Insurance Scheme
The Union Budget announced one more insurance scheme for farmers-viz., the weather based insurance scheme (WBICS) the scheme was implemented in some selected areas of Karnataka on a pilot basis. The WBICS intends to provide insurance protection to farmer against adverse incidence, such as deficit and excess rainfall which would impact adversely crop production. Premium kept very low and the scheme is implemented by the Agricultural Insurance Company of India Ltd. The scheme is being extended to other areas also and private insurance like ICICI-Lombard are also included

WBCIS has been piloted in the country since Kharif 2003 season. Some of the states where the scheme is piloted over the years are Andhra Pradesh, Bihar, Chattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Uttar Pradesh etc.

Advantages of WBCIS
Weather based crop insurance scheme has many advantages which make it beneficial for cultivators in their production risk management such as the following.

- Trigger events like adverse weather can be independently verified and measured.
- It allows speedy settlement of claims.
- All farmers can buy WBCIS.
- Government provides subsidy in premium and hence premium payable is affordable.
- It provides transparent, fully objective, efficient and direct payouts for adverse weather incidences.
- Insurer is not required to submit claim form or other documents as proof for loss.
- Since the weather data decides the compensation the insurer is willing to put extra effort for getting better yield of crop.

Farm Income insurance scheme (FIIS)
The Central Government has formulated a new insurance scheme for farmers known as Farm Income Insurance Scheme (FIIS).The two critical components of a farmer's income are yield and price. FIIS target these two components through single insurance policy so that the insured farmer gets a guaranteed income.

FIIS has been introduced as a pilot project from Rabi 2003-2004 covering wheat and paddy in 18 districts of 12 states. The scheme would be extended, with necessary changes, on the basis of the pilot project.

Conclusions and suggestions:
The above study reveals that the crop insurance is essential for the farmer. These different kinds of crop insurance schemes help the farmer at the time of risk & uncertainties. By insuring their crops, farmers are able to get the amount of claim. The plan provides comprehensive risk insurance for yield losses due to natural fire and lightening, storms, hailstorms, cyclone, typhoon, tempest, hurricane, tornado flood, inundation, landslide, drought, dry spells, pests/diseases, etc. crop insurance provide protection to the farmer and their family from the uncertainties which may be occurs in future. Through the different schemes they may get benefited.

It is strange and unfortunate that after every suicidal death of a farmer, there is a public notary condemning the indifference of the government to the welfare of the farmers, when there are many agricultural, farmer friendly insurance schemes, as has been discussed in the foregoing paragraphs.

Why there are no concerted efforts on the part of the government and those who indulge in blame games to educate the farmers regarding these schemes. The efficiency of any good intention or scheme rests on its effective implementation. Responsibilities should be fixed and those erring should be dealt with firmly. Life is precious above all.

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