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Implementation of Pradhan Mantri Fasal Beema Yojana: New initiative, new hope

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Abstract
Insurance is a mechanism for trading in risk. In today's context, the issue of risk is of interest both for positive and normative reasons and for policies to assist farmers in making production decisions that are desirable on social grounds. A major benefit from crop insurance is said to come from of its impact on the flow of credit and especially on the targeted flow of credit towards the needy and poorer sections in agriculture. Huge potentialities lie in crop insurance in India. Government of India is targeting to increase the Insurance coverage to 50 percent of the total crop area of 194.90 million hectares, from the existing level of about 25-27 percent crop area. Gradually this area could even be increased to cent percent for de-risking Indian agriculture through crop insurance. The Pradhan Mantri Fasal Beema Yojana has been implemented with the motto to attain this target.

Keywords: Indian farmer, insurance coverage, crop insurance programme, Pradhan Mantri Fasal Beema Yojana, crop insurance app

Introduction

European countries have been trendsetters in adopting crop insurance schemes by their farmers. The first crop insurance programme in the form of hail insurance for the distressed grape growers was started in 1820s in France and Germany. In 1883, it started in the USA for tobacco crop. The earliest Multi-Peril Crop Insurance (MPCI) started in the USA in 1939 with the formation of Federal Crop Insurance Corporation. Agriculture Insurance Company of India (AICI) is such similar corporation to administer crop insurance in India. However, research studies have shown, and it is noteworthy, that crop insurance system of Japan that started during the early-1960s is considered as the best crop insurance model in the world in terms of quality, efficacy and coverage. Most importantly, Japanese model does not emphasize involvement of the banks in crop insurance for any functional role such as collection of premium or enrolment/subscription by farmers for crop insurance policies through banks. Farmers have formed associations at grass root level of village for collection of premium. Farmers themselves perform the role of educating and guiding new farmers for dissemination of crop insurance programmes which become popular just like spread of mainstream culture and cultural values continues; no exclusive/special agencies are created for formal extension of programmes. However, Government has created a big special state fund to support crop insurance activities undertaken by different tiers of farmers' decentralized organizations/federations including national federation.

Development of Crop Insurance in India

In India, references are made to the idea of introducing crop insurance during the British period in the form of rainfall insurance scheme for Mysore state, and few other schemes. However, the first crop insurance programme started in independent India in 1972 on H-4 cotton in Gujarat, later extended to few other crops. It could cover over 3000 farmers in a span of six years (1972 to 1978) and was replaced by Pilot Crop Insurance Scheme (PCIS) in 1978 to cover food crops (cereals, millets, pulses), oilseeds, cotton and potato. The PCIS was confined to the borrowing farmers on a voluntary basis. The scheme was implemented in 13 states and could cover about 6.27 lakh farmers from 1979 to 1984. The Comprehensive Crop Insurance Scheme (CCIS) implemented during 1985 to 1999 was an extension of PCIS though made compulsory for borrowing farmers. Premium rate was 2 per cent of the Sum Insured (SI) for cereals and millets and 1 per cent for pulses and oilseeds. Premium was shared between Centre and State in 2:1 ratio. The scheme when discontinued in 1999 was implemented in 16 States and two UTs. The CCIS covered cumulative 7.63 crore farmers during 15 years period, from 1985 to 1999.

The CCIS was replaced by National Agricultural Insurance Scheme (NAIS) and administered by AICI to cover the envisaged 30-35 different crops during each season. But it encountered difficulties due to the shortcomings such as large Insurance Unit (block) being rarely homogeneous, non-reflection of pre-sowing and post-harvest losses in the yield index, huge infrastructure/manpower required to conduct over 20 lakh Crop Cutting Experiments (CCEs), delay in settlement of claims, and coverage of limited number of crops actually where historical yield data was available. The 'modified NAIS' (mNAIS) was implemented from Rabi 2010-11 in 50 districts even as the modified scheme had taken care of shortcomings of the NAIS, which are: insurance unit was reduced to village panchayat; claims up to 25 per cent of the SI was payable in case of prevented/failed sowing; minimum indemnity level was made 70 per cent (in place of 60 per cent NAIS); and premium rates were actuarial based supported by upfront premium subsidy (25 to 75 per cent) equally shared by the Centre and States. Some issues confronted mNAIS, which included increased number of CCEs (due to lowered insurance area) that could not be handled timely, higher share (50 per cent) in premium by farmers as compared to 30 per cent under NAIS, etc.

The traditional schemes (NAIS and mNAIS) still faced the issue relating to area discrepancies (area insured being more than area sown), which had afflicted the earlier scheme of CCIS. Some other issues were: delay in receiving crop cutting data on yield of crops; quality and reliability of such data; non-compliance with the provision of compulsory insurance for loanee farmers; multiple loans on the same land; high insurance premium perceived by farmers; delay in claim settlement; high indemnity payouts compared to premium collection, etc. These issues have persisted as challenges.

The New Millennium witnessed policy attention to weather index-based crop insurance. Countries like India, Maxico, Ukraine, Malawi, Ethiopia and China have been running World Bank initiated pilots of weather index-based crop insurance for some years. The first pilot on weather index-based crop insurance in India was carried out in 2003 by ICICI-Lombard, followed by AICI and IFFCO-Tokyo during 2004. In some States like J & K, weather-based crop insurance pilots were introduced later in 2013 in the form of Weather Risk-Based Crop Insurance Scheme (WBCIS) which is in implementation in the country since kharif-2007. Till 2013, around 4.70 crore farmers and 63.20 million hectares area were insured under WBCIS.

The National Crop Insurance Programme (NCIP) introduced since Rabi 2013-14 with the component schemes of mNAIS and WBCIS has higher premium as compared to the NAIS because there are several of the insurance product, amount of subsidy and the sum insured etc. The premium capping has been removed under PMFBY and Government subsidizes the premium amount to larger extend even if it amounts to 90 per cent. Under NAIS & MNAIS, the government in the form of excess payouts and sharing the administrative and operational expenses has paid large chunk of funds. As per the latest PBFBY guidelines, government will play the role of the reinsurer for the implementing agencies for sharing the risk during calamities. The liability of the Insurance companies in case of catastrophic losses shall be upto 350 per cent of total premium collected (farmershare plus Govt. subsidy) or 35 per cent of total Sum Insured (SI), of all the Insurance Companies combined, whichever is higher. The losses at the National level in a crop season beyond this ceiling shall be met by equal contribution (i.e. on 50:50 basis) from the Central Government and the concerned State Governments.

The private insurance agents will be allotted a cluster based on the bidding process for 3 yerars. The insurance providers feel that three years is very short period to successfully implement and make the crop insurance product economically viable. Hence, they prefer long-term contracts as compared to 3-year contract.

PMFBY-Pradhan Mantri Fasal Beema Yojana (From 2016): Recent Initiative

With back-to-back droughts, and increased frequency of unseasonal rains and hail in the country, it became clear that the risks in farming sectors are on the rise, and the existing systems of crop insurance could not provide adequate cover to the farmers. The latest insurance scheme PMFBY promises to address the shortcomings of the earlier schemes. Salient features of the new scheme are:

- The scheme is based on 'Area approach basis' and the unit area of insurance is the village/village panchayat. For widespread calamities, Unit area approach will be followed while, assessment on post harvest losses due to localized calamities will be based on individual farm basis.
- Very low premium rates (2.5 per cent for Kharif food crops, 1.5 per cent for Rabi food crops and 5 per cent for horticultural/ commercial crops). While, actuarially based premiums generally hover around 10-12 per cent for most Kharif crops, the share of farmers has been capped at 2 per cent in the new scheme. For Rabi crops, the farmer's share has been fixed at 1.5 per cent -- against actuarial premiums of 8-10 per cent. For yearlong cash crops and horticulture crops, this has been capped at 5 per cent. What this means is that farmers will get almost 80 per cent subsidy in insurance premiums, which will be borne by the government?
- It is available for all types of farmers but not mandatory for anyone. It is optional for both loanee as well as non-loanee farmers.
- Non-preventable risks such as flood, inundation, landslide, natural fire, lightning, storm, hailstorm, cyclone, typhoon, tempest, hurricane and tornado and yield losses due to drought, dry spells, pests/ diseases and delayed/failed sowing will be covered.
- Provides coverage for 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.
- Indemnity levels are fixed at 70, 80 and 90 per cent and the threshold yield will be the bench mark yield level for which the insurance protection shall be provided and is calculated as follows.

Threshold Yield = Average Yield of last 7 years X Indemnity level

Average yield is calculated using the yield data of last 7 years, deducting the yields of 2 notified calamity years if any.

- There is no capping on Sum Insured (SI), which the major reason for the lower claims was paid to farmers. The SI will be calculated by multiplying the MSP of a crop with the average seven-year 'threshold' yield (excluding calamity years) for the particular village panchayat area where it is grown. The premiums would be determined by the SI, but farmers will just have to pay an uniform premium of 2 per cent for all kharif crops, 1.5 per cent forrabi and 5 per cent for commercial/ horticulture crops. The gap between the actuarial premiums and the rates payable by farmers would be fully met by the state and the central government. There is no upward limit on government subsidy.
- Claim pay-outs will be based on the average yield estimated through CCEs and is calculated as follows :-

$$\text{Claims Payout} = \frac{\text{Shortfall in Yield}}{\text{Threshold Yield}} \text{X Sum Insured}$$

Shortfall in yield is the difference between Threshold Yield and the Average Yield.

- Online payment of compensation and mobile cash payments to be used for early settlement of claims.
- 25 per cent of the claim will be given immediately in case of crop damage while the rest will be settled at the earliest.

Table 1: Mandated number of Crop Cutting Experiments (CCEs)

WBCIS		PMFBY	
Unit Area	**Minimum number of C.C.E.s**	**Unit Area**	**Minimum number of C.C.E.s**
Taluka/Tehsil/Block	16	District	24
Mandal/Phirka/any other smaller unit	10	Tehsil	16
Gram Panchayat comprising 4-5 villages	8	Village/Gram Panchat/Patwari Mandal, Halka	4 for major crops, 8 for other crops

Source: PMFBY Guidelines-www.pmfby.gov.in

Table 2: Deadlines/Cut of dated under PBFBY

S. No.	Activity	Kharif	Rabi
1	Loaning Period (Loanee)	1st May to 16th August	15th Sept. to 15th Jan.
2	Cut-off date of Deceleration	30th September	28th February
3	For Receipt of proposal	31st July	31st Dec.
4	Receipt of Yield Data	Within a month from final harvest	Within a month from final harvest
5	Payment of Compensation	Within 3 weeks after harvesting of crop	

Source: Website of Agricultural Insurance Company of India Ltd-www.aicofindia.org.

- Use of technology has been emphasized under this scheme. It is advised that the use of available technologies such as remote sensing, satellite/aerial images are to be used in acreage/yield estimation and crop health/loss assessment need to be explored. GRPS enabled smart phones, GIS, drones and other modern technologies are to be used for a quick estimation of crop damage. The state governments are directed to increase the frequency of automated weather stations to record the weather fluctuations accurately.

Conclusion
Various countries have adopted different models of implementation of crop insurance with varying level of control and contribution from the public sector/government. For example, in countries like USA, Canada, Brazil, Mexico and China, the agriculture insurance sector operates in a PPP mode which is controlled/funded largely by the government while in Australia, its implemented purely by private insurance companies with zero contribution/interference from the government. In India, various schemes such as CCIS, NAIS and MNAIS were implemented by the government funded GIC and AIC, while private participation has been encouraged for implementing MNAIS and WBCIS in 2011-12.

In case of the latest insurance scheme PMFBY, PPP mode has been adopted with government having major control over the design improvements and additional benefits to the farmers under these schemes. Premium rates being charged are on actuarial basis and claim liability is at present on the insurance company. To make the premium affordable to the farmers, Government is providing upfront subsidy up to 75 per cent under mNAIS and 50 per cent under WBCIS. Coverage is envisaged to include food crops, oilseeds and annual commercial and horticultural crops. The risk cover would be available for standing crops, prevented sowing and post-harvest losses due to cyclone in coastal areas. However, cloudburst and hailstorm risks are not covered under NCIP. NCIP witnessed uneven spread in terms of formers/area covered in different states.

PMFBY is a replacement scheme for NAIS/mNAIS and under implementation from year 2015. State/UT Government is envisaged to notify as an insurance unit, Village/Village Panchayat or any other equivalent unit for major crops. For other crops it may be a unit of size above the level of Village/village Panchayat. For the claims arising out of crop damage due to post-harvest losses and localized risks, assessment of damage will be made on individual farm basis. Adoption of innovative technology especially Smart phones/hand held devices for capturing conduct of CCEs is a pre-condition for scheme implementation, which is a positive feature.

The Government of India has designed an insurance portal www.agri-insurance.gov.in for better administration, coordination amongst stakeholders, proper dissemination of information and transparency for Farmers, States, Insurance Companies and Banks. The basic information like notified areas, crops, Sum Insured, Government subsidy, premium to be paid by Farmer and insurance companies concerned in the particular insurance unit has been digitalized so that farmers and other stakeholders may get the relevant information on inter net and through SMS. The idea behind developing a web-based, integrated IT solution is to speed to service delivery, unify fragmented databases, achieve a single view of data, eliminate manual data based and thus provide insurance services to farmers faster than before. Further, to ensure better administration and ease in accessing information by farmers, an android based "crop insurance app" has also been launched which could be downloaded from either the website of DAC&FW of MoA, Government of India or Google Play Store. The Government is also endeavoring for the integration of all the stakeholders, viz., farmers, insurance companies, financial institutions and Government agencies on an IT platform to ensure better administration, coordination and transparency for getting real time information and monitoring etc. in a phased manner in consultation with Ministry of Finance and other stakeholders. Online submission of application forms by the farmers especially for non-loanee farmers for getting insurance coverage through designated bank branches is also envisaged under the new scheme.

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