

Chapter VII

CONCLUSIONS & RECOMMENDATIONS

Crop insurance in India has two unique features not necessarily found in other countries of the world: (i) the credit-insurance linkage and (ii) element of compulsion in the insurance cover for loanee farmers. Both these features are inescapable in designing a crop insurance system for India. The preponderance and geographical spread of a vast number of small dispersed holdings producing low value of output per holding implies that the insurer cannot viably approach individual farmers to solicit business, collect premiums, collect claim reports, conduct individual loss survey assessments and pay individual claims. The costs would be prohibitive. Equally, the farmers are so poor and their need for cash so acute especially at the start of the cropping seasons that they would not voluntarily pay premiums.

The Indian crop insurance system has been widely acknowledged as an ingenious solution to this problem by adopting the homogeneous area-yield approach and by requiring the payment of insurance premium and indemnities in and out of the crop loan account it has greatly economized transactions and administration costs of insurance selling and claims administration. The system also ensures that every penny spent by the government on paying claims reaches the farmer for whom it is intended. In contrast to the traditional yield insurance scheme, weather insurance is market based and financially sustainable. The even spread of benefits, the more advantageous premium regime for commercial and horticulture crops and swift payouts has the potential

to transform the lives of the vulnerable sections of the farming community as it prevents them from paying high interest rate to the moneylenders and helps them to avoid debt trap. Despite these strengths and important policy initiatives the index based crop insurance, especially the weather index insurance, piloted since 2007 with the government support, is at best only partially successful.

The key actionable areas and possible solutions for making crop insurance an effective tool of risk mitigation, particularly in the context of weather index insurance are discussed below:

- i. Crop yields and weather are closely related, yet given the dynamic nature of the weather and varied agriculture practices, appropriately designing weather insurance product is of paramount importance. The present design of the product is complex yet could not quite convince the farmers about its utility as an important risk mitigation tool.
- ii. Lack of adequate density of weather stations too is contributing to the basis risk and affecting the credibility of the product. The private weather data providers, who saw a business opportunity, set up weather stations to service the product, but the data is expensive to buy. The lack of standardization of weather station equipment is yet another grey area.
- iii. Competition is good so long as there are rules of the game and the customers know how to evaluate the product offered by multiple insurance providers. At present the competition pushed by the government is not quite affective for two reasons: one, the states lack the technical expertise to understand the complex weather insurance products offered by the different insurance providers, as also there is no transparent system

(except a few states like Rajasthan); secondly, farmers could not quite exercise their option to choose the product as only one insurance provider is permitted in a given area. In other words, the present system of encouraging competition among insurance providers is neither fool-proof, nor transparent.

- iv Many states who are piloting weather index insurance are ignorant of the basic insurance principles, as also the process needed to evaluate the product offering of multiple insurance providers. Consequently a few powerful insurance providers seem to promote their business interest and are thereby compromising the farmers' interest.
- v. Less than 5% of the non-loanee farmers are participating in insurance despite high level of the government support. The key reasons appear to be lack of awareness and understanding, financial illiteracy (on how insurance products work), lack of convenience in buying insurance products, liquidity and affordability issues. There is a greater need to bring the great majority of non-loanee farmers into the insurance fold if weather index insurance is to be considered as successful.
- vi. The limited scope of weather parameters covered under weather insurance and the distribution of the sum insured across various crop stages is unlikely to provide decent compensation for adverse weather deviations at any one particular stage of the crop. As a result, while the ratio of the number of farmers receiving compensation to the total farmers insured is high, the average size of the claim is relatively low. The farmers,

therefore, are not happy with the amount of compensation, though timely payment of compensation is perceived as a positive feature.

- vii. Weather index insurance is piloted for over six years, annually covering over 10 million farmers. Yet the government so far has not undertaken a study to compare the benefits and stakeholders perception of the different insurance products. Consequently, an important product like weather index insurance is still run as a pilot.
- viii. Unlike area yield insurance, weather index insurance provides coverage for perennial/tree crops. This is being seen as an attraction with weather index insurance, but it requires focussed study on weather yield relationship of these perennial/tree crops.
- ix. Weather index insurance is supposed to facilitate faster claim settlement which it is doing. However it is being noticed that delay in receiving premium subsidies particularly from the piloting states is leading to delays in settlement of claims.

Despite some perceived shortcomings and challenges, weather index insurance has the potential to be used as an important adaptation strategy to mitigate the risk of climate change. Keeping in mind these potential benefits, a few suggestions are made below to enable the policy makers to use weather index insurance as a critical component of risk mitigation. Broadly these areas fall in different categories, namely, product design, weather data & standards, financial literacy & awareness, distribution network ,and resolving of queries. Some of the suggestions which can play an important role in scaling of weather index insurance are discussed here:

- (i) **Product Innovation:** As mentioned pre-page, weather insurance product is complex yet limited in scope. It has to provide reasonable benefit vis-à-vis area yield insurance which is comprehensive in nature. In order to bring together the strengths of area yield insurance and weather yield insurance, it will be good idea to combine the two products into a 'double trigger' insurance wherein a part of the payout could be made based on weather index and the rest, using yield index. Further innovation could be combining the traditional insurance for localized risks like hailstorm, landslide etc. which causes heavy damage to crop in a very small time span with weather index insurance particularly for high value crops. However, this should be done keeping in view the localized conditions in each area and after assessing the type of risks associated with particular crops in selected areas and cost effectiveness of the scheme. The loss of crops yield/value due to such add-on indices can further be assessed through field survey or through satellite images/remote sensing technology.
- (ii) **Improving Weather Station Density:** An ideal weather insurance product should have the least radius of insured farms from the location of weather stations. Ideally a five kilometre radius would need about 50,000 weather stations in the country. If not impossible, but this challenging task would need public private partnership in setting up weather stations. It is also worthwhile to look at new technologies wherein macro level weather data sets can be downscaled to micro level using meteorological satellites.

- (iii) **Reliable weather data** from IMD can be analyzed through collaborative inter-functional research exercises involving research institutions, agricultural universities and industry think-tanks to undertake region/crop specific calibration exercises for improvement of crop insurance by blending different models, triggers & indices.
- (iv) **Technical Support Unit:** Many implementing states are short of the needed expertise and data tools to evaluate the product offerings from multiple insurance providers. The best way competition could be made use of is to strengthen and hand-hold the states with data sets, technical training, review reports, advice etc. by setting up a centralized technical support unit at Central level in the Ministry of Agriculture.
- (v) **Value Added Services:** With weather forecast and agro advisory services playing an increasing role for farmers in risk management, the crop insurance penetration could be given a boost by providing value added services like weather forecast, agro advisories to the insured farmers, as an add-on or free service.
- (vi) **Financial Literacy and Education:** The need for adequate understanding of insurance, particularly crop insurance is felt not only at the farmer's level but also at the policy makers' level. The government should mount a structured and sustained awareness and financial literacy drive to make weather insurance a product whose utility is well known among the farmers and the policy makers.

- (vii) **Convenient Delivery Channels:** Loanee farmers are well serviced though, the non-loanee farmers have not been provided the convenience of easy enrolment. With great strides in rural infrastructure and telecommunications, the village level institutions like post offices, common service centers, agri-input dealers, etc. should be looked into to service the non-loanee farmers.
- (viii) **Data Bank and Information Interface:** Notwithstanding the transparency of payouts under weather insurance, often farmers struggle to understand how the payouts are determined. In order to empower the farmers and grass root level agencies involved in implementation of weather insurance, it would be helpful to provide them with near real time data access which in turn can lead to creating a national 'data bank'. This may also help larger policy decisions besides servicing the weather index insurance.
- (ix) **Grievance redressal system:** The participating farmers can be the ambassadors for propagating insurance products if they are enabled to understand the products, how and when a payout is made and their grievances if any are redressed within a reasonable time. It is, therefore, suggested that the insurance providers should put in place a sound and effective redressal mechanism, including the provision for online grievance registration and resolution.
- (x) **Agriculture Risk Protection Act:** Currently the country has many parallel ad-hoc as well as quasi-scientific schemes targeting the same contingencies in agriculture risk management. Consequently there is

duplicity as well as poor accountability of these programs. It is suggested that a comprehensive study be undertaken to document the effectiveness of these schemes with an objective of converging these schemes on a sound and scientific approach. This could be possible by amending the existing Acts, including enacting the Agriculture Risk Protection Act to give direction and permanency to crop insurance.

Weather insurance can neither modify weather conditions, nor can it eliminate weather risk. However, it can certainly help manage weather risks in a more efficient way, if designed and used appropriately. With emergence of sophisticated technology and streamlining of institutional delivery mechanism the WBCIS can go a long way in addressing the risk mitigation issue.