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Crop Insurance in India: A Façade or Reality

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Abstract - Farming indeed is a profession of hope blighted with untoward climatic incidents. The unpredictable weather changes and related risks thwart the agricultural productivity gains and put farmers in a challenging situation leading to extreme hopelessness and suicides. In the independent India, the policy makers have unrolled various avatars of crop insurance by way of different schemes but crop insurance seems to have remained a failed attempt. The need and usefulness of agricultural insurance in risk mitigation are not in question here rather it is consistent fall in the acreage and the number of farmers covered under the umbrella of these policies that are the cause of the concern. The paper provides an overview of crop insurance schemes in the past and the present. Also it makes an attempt to analyze the status of India's flagship crop insurance scheme- Pradhan Mantri Fasal Bima Yojana (PMFBY) which is in its second phase of implementation in the country at present so as to check the viability of the existing insurance laws in the country.

Keywords - crop insurance, schemes, Pradhan Mantri Fasal Bima Yojana, risk mitigation, acreage, etc.

- X -

INTRODUCTION

Agriculture's contribution to the Indian economy remains phenomenal. This is because unlike developed countries where we have few farmers participating in agricultural production in meeting global food demands, the situation in developing countries like India itself is quite the opposite. Here, domination by smallholder farmers in meeting food demands is the prominent trend because very few economic opportunities exist outside urban areas pushing most rural dwellers to engage in agriculture. But we have to admit the fact that agriculture is tantamount with risk and uncertainties caused due to vagaries of nature that adversely affect the farmers in terms of loss of production and agricultural income. These risks are due to unforeseen weather, disease, pest infestations and market conditions causing wide variations in yields and commodity prices. The type and severity of risks vary by crop, farming system, agro-ecological conditions and policy and institutional settings. Weather shocks pose a major challenge to the rural economies and it is therefore imperative to mitigate these risks. The loss is not only borne by the farmers and their families alone rather that burden is to be shared by us all.

A myriad of strategies do exist to mitigate agricultural risks. Some of these include: investments in infrastructure like having better irrigation facilities, making use of technological innovations for instance the drought-tolerant cultivars, crop management practices such as making changes to the timing of production activities and also the financial instruments like that of credit and insurance. Unfortunately, the situation in developing countries is such that most of these above mentioned strategies are often either not available or not feasible for many resourced constrained farmers. And as far as the technological innovations are concerned, most of the farmers are not yet fully aware about it. Under these circumstances, it is better to start with having a good agricultural insurance policy first in order to have a control over the situation at hand and then gradually we can take this effort to an altogether next level.

In the words of the *Agricultural Crop Insurance Company of India*, "*Crop Insurance*" is a *means of protecting the agriculturist against financial losses due to uncertainties that may arise from crop failures/losses arising from named or all unforeseen perils beyond their control*.[1] It provides *security* and *assurance* to the farmers by *stabilizing their income* and minimizing the problem of *rural indebtedness* caused due to the frequent failure of crops and in turn motivates them to *make more investments in agriculture* by spreading crop losses over time and space. It encourages the farmers for *optimal allocation of resources* in their production process. Protecting the economic interest of the farmers against possible risk or loss accelerates adoption of *new agricultural practices* like *intercropping, crop rotation*, etc. which not only benefits the farmers but also the government in the sense that it reduces, to some extent, government expenditure incurred on relief measures extended

[1] National Center for Agricultural Economics and Policy Research, *Agricultural Insurance in India: Problems and Prospects* (ICAR, New Delhi, 2008).

to meet the havoc caused by natural calamities, and also it may act as anti-inflationary measure, by locking up part of the resources in rural areas. It also strengthens the position of co-*operatives* and *other institutions* that finance, agriculture to the extent it enables the farmer members to repay their loans in years of crop failure.[2] It is evident from here that adopting a *robust crop insurance system* is the need of the hour and it can help alleviate the distress arising out of these natural calamities.

HISTORICAL BACKGROUND

The concept of crop insurance is not new to India. Although it received more attention post independence there are evidences which show that the spadework was already put in place prior to it. For instance, a proposal of a *rain insurance scheme* for the State of Mysore and for India as a whole was put forward by *J.S. Chakravarti*. He published a number of papers on the subject and also wrote a book titled, "*Agricultural Insurance: Practical Scheme suited to Indian Conditions"* (*1920)*. Similar attempts were made by other princely states like Dewas, Baroda, Madras, etc., to introduce crop insurance.

Post- Independence, a special commission under *Dr. G. S. Priolkar* was constituted in the year 1947-48 to work out the modalities of crop insurance and the report recommended two pilot schemes which circulated to the states, but to no purpose as none of states adopted them due to very high financial obligations. In *October 1965*, the Government of India decided to introduce a *Crop Insurance Bill* and a *Model Scheme of Crop Insurance* in order to enable the States to introduce, if they so desire that were later referred to an *Expert Committee* headed by *Dr. Dharm Narain*. **[3]** Thus, for over two decades the debates and discussions on the issue of crop insurance continued but was not acted upon until 1972-23 when the Government of India began experimenting on a limited, ad hoc and scattered scale which is discussed briefly in the next section.

CROP INSURANCE POLICIES IN INDIA (1972-2016)

Ever since the *First Individual Approach Scheme*- the first ever crop insurance scheme to be introduced in India by the *General Insurance Department (GIC)* of *Life Corporation of India*[4], the government has come up with various different schemes to insure the farming community against the serious problem of crop failure whether full or partial. These schemes can be categorized as single peril and multi- peril coverage.[5] In India, a multi-peril crop insurance program is being implemented, considering the overwhelming impact of nature on agricultural output and its disastrous consequences on the society, in general, and farmers, in particular (discussed later in this section).[6]

Further, there are two approaches to providing crop insurance- the "*Individual Approach"* and the *"Homogeneous Area Approach"*. In the former case, the farmers are indemnified to the full extent of losses and the premium to be paid by the farmer is determined with reference to his own past yield and loss experience whereas in latter case, the villages with similar crop productivity are together taken as one unit and the farmers in each area unit are indemnified equally irrespective of their losses in individual yield i.e. they would pay the same rate of premium and receive the same benefits.[7] This approach is also sometimes known by the name of *"Area Yield Approach"* and was suggested by *V.M. Dandekar*. The *First Individual Approach Scheme (1971-78)* was the only scheme that was based on the *"Individual Approach"* because implementing this scheme in Indian conditions scheme was beset with problems and so this experiment failed badly.[8] The schemes that followed it were based on the Homogenous Approach introduced after this viz., the *Pilot Crop Insurance Scheme (1979-84)*[9] and *the Comprehensive Crop Insurance Scheme (1985-99)*[10].

The Comprehensive Crop Insurance Scheme was the first nation-wide scheme but it was later on replaced by the *National Agricultural Insurance Scheme (NAIS)* which was implemented by *Agricultural Insurance Company (AIC)* for the *Rabi season 1999- 2000 to that of 2013-14.* This scheme employed both the individual and homogeneous approaches. On the recommendations of a joint group constituted by the government the scheme was modified for the *Rabi season of 2010-11* and was known by the name of *Modified National Agricultural Insurance Scheme (MNAIS).* Further, the *Weather Based Crop Insurance Scheme (WBCIS) launched in the year 2007-09* and the *Coconut Palm Insurance Scheme (CPIS) from 2009-10* were also

[2] National Center for Agricultural Economics and Policy Research, *Agricultural Insurance in India: Problems and Prospects* (ICAR, New Delhi, 2008).
[3] Crop Insurance in India, *available at*: http://www.agroinsurance.com (last visited on 12 September 2019).
[4] LARRDIS, "Crop Insurance in India" (Lok Sabha Secretariat, 2014).

[5] *Ibid*.
[6] *Ibid*.
[7] Commercial Viability Analysis of Crop Insurance as Micro- Insurance, *available at:* http://www.shodhganga.inflibnet.ac.in (last visited on 12 September 2017).
[8] Crop Insurance in India, *available at*: http://www.agroinsurance.com (last visited on 12 September 2019)
[9] S. S Raju and Ramesh Chand, "Problems and Progress in Agricultural Insurance in India", *Policy Brief* 31 (NCAP, 2009)
[10] *Ibid*.

implemented by AIC. MNAIS, WBCIS and the CPIS were full-fledged component schemes under the aegis of the *National Crop Insurance Programme (NCIP)*[11]*.* Unable to deal with the problem of crop failure and the growing plight of the farmers, the government came up with yet another scheme in *2016*- the *Pradham Mantri Fasal Bima Yojana (PMFBY)* which has been planned to be implemented in the country in phases and currently the scheme is in its second phase. It has been discussed in details in later sections of the paper.

ISSUES RELATED TO CROP INSURANCE

No doubt, the weather gods have been brutal on these poor farmers but isn't the government responsible too for the increasing suicide counts and the reason that these farmers take the roads demanding loan waivers. It is the protection from such climatic flippancy, in terms of crop insurance that has failed these farmers when they needed it the most. Although crop insurance has been in the country since 1972, yet it has been beset with several problems. Even after repeated revision of the schemes and huge support in the form of premium subsidies, it has remained a failed attempt i.e., it has failed to produce desired results.

The reason for the failure of the very first of the crop insurance schemes was majorly attributed to the high premium- claim ratio, same high thresholds for both high and low risk areas, even extremely poor farmers were expected to pay the premium and they could not claim insurance because of unpaid dues on their bank loans.

The major setback to Comprehensive Crop Insurance Scheme was that Saurashtra experienced severe droughts during 1985-87 and large- scale crop- failures during 1990-93 that resulted in high indemnity payments. Some other drawbacks of the said scheme include- area approach, coverage confined to loanee farmers, uniform premium rate for all the farmers and regions, coverage of few crops and time lag for indemnity payment.

The limitations of the Weather Based Crop Insurance scheme included- distance of the farm from the weather station, non- coverage of perils other than weather, wider sowing/ planting window of the crop, differences in soil types & management practices, shift in climatic & weather patterns, etc. leading to weak correlation between the yield and the weather indices. [12]

The performance audit report[13] for the period 2011-12 to 2015-16 has pointed out several drawbacks of the National Agricultural Insurance Scheme and the schemes launched under the aegis of the National Crop Insurance Programme some of these are as follows:

- Coverage of farmers- It has been more than decades of its existence but still it has only reached just a small percentage of the farmers particularly that of the non-loanee, primarily because the schemes is not mandatory for them unlike the loanee farmers.
- Non- maintenance of databases- The Government of India and the state governments did not maintain databases of the insured farmers. The implementing Agency- AIC also did not maintain comprehensive data under any of the schemes neither NAIS nor the NCIP. Discrepancies were also found in the data relating to area sown and area insured. Further, the integrity of the data provided by the state governments in this respect and used by AIC was not ensured.
- Lack of awareness- Most of the farmers opted for sum insured equivalent to loan amount under NAIS indicating that either the loanee farmers were intent on covering the loan amount only (in which case, the scheme acted more as loan insurance than as crop insurance) or were not aware or were not informed appropriately by loan disbursing Bank/FIs about the full provisions of the scheme.
- Delays in claim settlement- The delays and omissions by the state governments and by loan/insurance disbursing banks and financial institutions, resulting in denying or delaying insurance coverage to the farming community were noticed. Grievance redressal systems and monitoring mechanisms for speedy settlement of farmer's complaints at central and the state government levels were inadequate.
- Premium- Capping of premium under NCIP, introduced with the aim of restricting the liability of the governments under the schemes, also resulted in loanee farmers being denied their full entitlement.
- No specific legislation- Requirement of legal changes in existing law with regard to transparency and accountability of crop insurance business.

[11] Crop Insurance in India, *available at*: http:// www.policyholder.gov.in (last visited on 12 September 2019).

[12] Dr. Ashoka M.L and H. S. Niranjana Babu Reddy, "Crop Insurance: Performance of WBCIS in India" 3 *EPRA International Journal of Economic and Business Review* 4 (2015).

[13] Performance Audit Union Government Agriculture Crop Insurance Schemes Reports Of Agriculture and Farmers Welfare, report no.7 of 2017, available at https://www.cag.gov. (last visited on 12 November 2019).

- Role players- Due to the vastness of the country, large number of small and marginal farmers, and adoption of area-based approaches, coordinated efforts of several agencies and organizations are critical for effective implementation of the crop insurance schemes in the country which is lacking here.
- Loopholes in implementation and monitoring- There was no effective mechanism to monitor the implementation of the schemes. Monitoring of the schemes by center/state governments and Implementing Agencies was very poor as:
  - (i) Technical Support Unit (TSU), an independent agency under the guidance of DAC&FW, has not been set up to monitor implementation of the crop insurance schemes,
  - (ii) Periodical Appraisal Reports were not prepared by the DAC&FW despite 14 years of operation of the schemes,
  - (iii) State Level Coordination Committees on Crop Insurance and District Level Monitoring Committees did not carry out the work allocated to them effectively, and
  - (iv) Implementing Agencies also did not carry out the monitoring of the schemes as assigned to them effectively.

PRADHAN MANTRI FASAL BIMA YOJANA

Realizing the limitations of existing crop insurance system, a new crop insurance scheme was launched under the name of Pradhan Mantri Fasal Bima Yojana (PMFBY), from Kharif season of the year 2016 with the same old objective of increasing coverage and providing financial support to the farmers like the earlier schemes. This scheme is being implemented in different phases that have been briefly discussed below:

- ***Phase I of PMFBY***

Some of the salient features[14] of the scheme at this stage are stated as under:

(i) Coverage of farmers: The scheme covers loanee and non-loanee farmers (on a voluntary basis), tenant farmers and sharecroppers.

(ii) Premium Rates: The premium rates are lower and differ across seasons. The premium subsidy to be provided by the Central and the State Governments which will be shared equally between them.

(iii) Coverage of Risks: It aims to prevent sowing/planting risks, loss to standing crop, post-harvest losses and localised calamities. The sum insured is equal to the cost of cultivation per hectare, multiplied by the area of the notified crop proposed by the farmer for insurance.

(iv) Use of modern technology: The Crop Cutting Experiments (CCEs) till now had been lacking in reliability and speed in estimation of crop yield. Using a mix of modern can minimize the number of CCEs. The use technology available in the fields of remote sensing, aerial imagery, satellites etc. would reduce manpower and infrastructure. The use of mobile based technology with GPS stamping can help to improve the quality of data and make faster assessment of claims. The expenses here are to be borne equally by the Centre and the State, with a cap on total funds to be made available by the Central government.

(v) Role of Private players: Both the public and the private sector companies are allowed to participate in the new crop insurance scheme. The selection of Implementing Agency (IA) is made by state governments by adopting a cluster approach consisting of 15-20 ‘good’ and ‘bad districts’, based on risk profile, with reference to the bid to be laid out which is made through competitive bidding.

(vi) Time frame for loss assessment: The cut-off date for the receipt of yield data is within one month of final harvest. Processing, approval and payment of final claims is based on the yield data and it is to be completed within three weeks from receipt of yield data thus, speeding up the settlement of claims. Also, there will be timely release of premium subsidy to the Insurance Companies.

(vii) Publicity and Awareness: Adequate publicity is to be given in all villages of the notified districts through fairs, exhibitions, SMS, short films, electronic and print media and documentaries. The crop insurance portal is to be regularly uploaded with all published material information.

The scheme has faced several challenges during its first year of implementation which pertain to extension of cut off dates for registration resulting in high premium rates; delay in submission of yield data to assess damages as the system relies on thousands of Crop Cutting Experiments (CCE); lack of trust in the quality of such data as they are not being video recorded and delay in payment of premium subsidy by the state governments to the insurance companies, etc. The litmus test of any crop insurance program is quick assessment of

[14] Pradhan Mantri Fasal Bima Yojana, 2016, India, *available at*: http://www.pmfby.gov.in (last visited at April 20, 2018).

crop damages and payment of claims into farmers' accounts directly, and from that point of view, the first year of implementation of PMFBY has not been very successful and so the center has revamped the scheme.

- ***Phase II of PMFBY***

The second phase of the scheme, known as PMFBY 2.0, was initiated at the start of the year with some beneficial modifications. Its primary objective is to effectively implement the plan in accordance with its intended principles and objectives. The revised guidelines[15] are stated as follows:

(i) The IA selected through open tenders called annually were having little functional presence at block or even district level and so the revamped scheme provides for allocation of business to them for a period of 3 years so that they can implement the scheme in an earnest manner, including setting up local offices. An additional provision granting extra points for outstanding performance by any company and awarding tenders even beyond three years so as to further incentivize quality service delivery to farmers.

(ii) For timely disposal of claims and enforce implementation discipline, the Center has strictly directed the State Governments to release its share of premium subsidy before the set cut-off dates for both the kharif and the Rabi Season failing of which the said govt. will not be allowed to operate the scheme for the season.

(iii) Until now the scheme was compulsory for the loanee farmers and the banks used to deduct the farmer's share of premium against loan accounts remitting the same to the insurance companies. No direct contact with the insurance companies and lack of policy certificates, the farmers were in no position to even take the firms to court in cases of default or delays in claim settlement. By making the enrolment 100 % voluntary for all the farmers, crop insurance will become an informed choice for loanee farmers, just as it already is for their non-loanee counterparts and the insurance companies will have to make efforts to create real awareness among farmers about the benefits of crop risk coverage.

(iv) There were cases where the farmers took loans for a particular crop that had higher value which was different from the one actually grown by them. The reason being the credit limits linked to the "scale of finance" per acre, which was crop-specific, and farmers wanting to have the maximum possible loans sanctioned availed such loan facility. In the event of the crop failure, these farmers failed to get their claims against yield losses the crops grown by them.

(v) The Center has now capped the limit of premium subsidy to a maximum of 30% in case of un-irrigated areas and 25% in irrigated areas. Now the insurance companies will have to actively seek out farmers and convince them of the importance of crop insurance.

The pandemic tweaks seem to write an altogether different story for the crop insurance as well as the country as a whole. Since the whole world has come to a halt due to COVID, digitization has become necessary in the field of crop insurance as well. The lack of use of technology was one of the major drawbacks of this scheme in the first phase as well and we are working in this area for this phase too.

It is expected that these operational guidelines hopefully will take the scheme to a next level and will help us to resolve the problem of crop insurance to some extent.

CONCLUSION

Shastri Ji's slogan of "Jai Jawan, Jai Kisan" adulating the soldiers and the farmers pointed out that they are the two pillars of Indian democracy and that the nation needs to respect them and take care of their issues. The question is- have we been able to address the plight of our farmers? The deplorable living conditions of the farmers today suggest otherwise.

Agriculture in India is a perilous endeavour because of the occurrence of untoward climatic incidents that worsen the status of the farmers, who are at the receiving end. About millions of them working the hardest yet suffer the most. Crop Insurance, an ex-ante adaptation strategy, transfers the risk from the insured farmers to the insurer agency and acts as a panacea to ills of the nature. In spite of its importance, crop insurance in India has neither gained much popularity amongst the farming community nor has any related crop insurance scheme been successful so far in improving the deplorable living conditions of the farmers because of their innate lacunas.

It is quite clear that till now our country is not fully equipped to handle risk situations and to insulate the farmers from both production and price risks. Schemes after schemes have been launched but all in vain. Studies have been conducted to evaluate and analyze the different schemes so that

15 Editorial, "PMFBY 2.0: A revamped crop insurance scheme", *The Indian Express*, Feb. 27, 2018.

the government can come up with a farmer friendly policy. The Pradhan Mantri Fasal Bima Yojana which is currently in action is an attempt in this direction but as mentioned earlier it all depends on how effectively and efficiently the role players carry out its implementation i.e., implementation in its true spirits.

SUGGESTIONS

The proposed suggestions are here as under:

- It becomes the primary duty of Government to think of the welfare of farmers which would necessitate thinking of ways and means of reducing the risk in farming. Instead of one-size fits all approach, we can look at linking the risks with the type of crops. More importantly, the Government subsidy on insurance schemes has to reach the farmer who needs it the most. Moreover, the government should pay the premium for small farmers.
- Awareness creation and training programmes play a crucial role in convincing farmers to take up insurance.
- Reserve Bank of India (RBI) and National Bank for Agriculture and Rural Development (NABARD) should effectively monitor the compliance of their circulars regarding compulsory crop insurance for loanee farmers.
- Insurance companies and banks should play a pro-active role in insuring effective implementation of crop insurance schemes.
- Center and the state governments should maintain/have access to comprehensive database of beneficiary farmers for the purpose of monitoring and more effective implementation of insurance schemes to ensure that the benefits of the schemes have reached intended beneficiaries.
- DAC&FW should take effective measures to ensure that large numbers of farmers are brought under the schemes, and more non-loanee farmers are encouraged to participate in the schemes. vii. State governments should be encouraged to adopt the village as the defined area for insurance, so that the schemes are appropriately targeted at the farming community. It should also introduce measures (through use of technology where feasible) for more accurate assessment of crop yields.
- An Atlas of critical weather elements for different agro-climatic regions and an Agricultural Insurance Act should be formulated to take care of specific needs of the crop insurance and agricultural insurance in general. The government needs to legislate on the subject, making insurance cover compulsory and holding agricultural as well as bank officials accountable for process pertaining to crop insurance should also be a part of the legislation.

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