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A study on current crop insurance schemes with a special reference to Pradhan MantriFasalBhimaYojana(PMFBY) and restructured Weather Based Crop Insurance Scheme

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Abstract: India is an agriculture based economy. As per ministry of Agriculture report livelihood of 58% of the Indian populationdepends on Agricultural activities. Time and again the Government of India is striving to develop Indian economy by boosting agricultural development and farmers welfare. In the current 2016-17 Budget, huge amount is being allocated for this purpose which includes allocation for Rs 287,000 crore grant in aid to gram panchayats and municipalities, ParamparagatKrishiVikasYojana' to support the organic farming scheme, 'PradhanMantri Gram SinchaiYojana' to improve access to irrigation,`Per Drop More Crop' to enhance water efficiency, continued support to Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and the creation of a unified national agriculture market to boost the incomes of farmers etc.The announcement of Pradhan MantriFasalBimaYojana (PMFBY), a crop insurance scheme by Mr. Narendra Modi, Prime Minister of India is considered as a major evolution in the insurance sector of the country.This paper attempts to highlight the requirement of announcing a new crop insurance scheme, how the scheme is different from other crop insurance schemes, critical challenges faced in implementing the scheme.

Keywors : PMFBY,MGNREGA,PKVY

1. Introduction:

Indian agricultural income has direct positive correlation with economic development of the country. The agriculture income may decline due to crop loss or due to lesser market price for the crop, which can't be predicted before sowingthe crop and hence risk is assumed to be very high.Vast majority of Indian population depends on agriculture and such scenario adversely affect livelihood of farming community. There have been many cases of farmers suicide on account of crop loss and it is truly challenging for any Government to control such unfortunate incidences unless we have a formal mechanism to protect the agricultural risk. A crop insurance scheme is effective when it is implemented with a right spirit,when it is covered to all farmers and when right amount of claims are paid to right person at a right time.

The genesis of crop insurance in India started with Mr. JS Chakravarthi, Ex-Officio Financial Secretary to the Government of Mysore and Member of Mysore Legislative,attempting to introducedrought protection scheme in 1915. After that it took more than five decades to frame draft insurance bill, institutionalize the scheme and to launch first insurance scheme by General Insurance Corporation, which was a department of Life Insurance Corporation of

India. Later on Indian agriculture history has witnessed many crop insurance schemes such as Pilot Crop Insurance Scheme (PCIS), Comprehensive Crop Insurance Scheme (CCIS), Experimental Crop Insurance Scheme (ECIS), Pilot Scheme on Seed Crop Insurance (PSSCI), Farm Income Insurance Scheme (FIIS), National Agricultural Insurance Scheme (NAIS), Pilot Coconut Palm Insurance Scheme (CPIS), Modified National Agricultural Insurance Scheme etc. All popular schemes attracted low premium and highest subsidy contribution from central and state and still failed miserably due to very high claim ratio (that is ratio between claims paid to premium received was always higher than 100%).

Today there are two insurance schemes implemented in Indiaie. Weather Based Crop insurance Scheme (WBCIS) and Pradhan MantriFasalBhimaYojana (PMFBY).

This paper aims to present the need oflaunching PMFBY, the difficulties faced by farmers who availed WBCIS and current challenges faced by Banks and insurance companies in implementing the scheme.

WBCIS was announced on pilot basis in the year 2007 and later extended to all states and major food crops, horticulture and commercial crops. It is not an income protected scheme but protects the farmers against extreme weather parameters such as excess or insufficient rain, too high or low temperature, wind speed, hailstorm and cloud burst. The scheme was introduced to ensure the speedy settlement of claims to farmers based on triggers from weather measurement stations.

Private insurance companies such as ICICI Lombard, HDFC Ergo, Cholamandalam – MS, Royal Sundaram alliance, Future Generali, IFFCO-TOKIYO, L&T General, Reliance General, Tata AIG, are participating earnestly in improving the design of the scheme, simplifying the process and reducing the cost.

PMFBY introduced with Kharif 2016 season has replaced previous two crop insurance schemes i.e. National Agricultural Insurance scheme (NAIS) and Modified National Agricultural Insurance scheme (MNAIS).The scheme is implemented through multi-agency framework by empanelled insurance companies work in association with Department of Agriculture, cooperation and farmers welfare (DAC&FW), Ministry of Agriculture and farmers welfare, State and Central government, financial institutions and various government department such as Statistics, Horticulture, Agriculture, Revenue, IT and Panchayat Raj etc.

A research study was conducted to analyse the performance of WBCIS between Kharif 2012-Rabi 2014 in Karnataka. Primary survey was conducted based on Stratified and multistage random sampling techniques. 383 farmerswho had availed WBCIS scheme, were chosen as sample in Haveri district using questionnaire method.

2. Major findings of primary survey undertaken in Haveri district of Karnataka state are given below.

1. For availing loan from the Bank, it is compulsory for the farmers to apply for crop insurance on all notified crops. It is observed that 19 % of respondents are unaware of the crop insurance scheme.

   No insurance companies push the scheme as it involves huge promotional cost. Banks cannot afford to invest their time in creating awareness or explain the product details to the farmer. Farmers expect awareness campaigns to be conducted at gramasabha level.

2. WBCIS has covered only 2.7% of the farming community of Karnataka in the year 2013-14 in which year all the crops were allowedto be insured under the scheme.
3. Premium paid by the farmers isconsidered to be very high. On horticulture crop like Mango they have paid premium to the extent of 12.5%of sum insured in Haveri district. Farmers are not finding value proposition in the scheme in spite of 50% subsidy on premium given by central and state government on equal contribution.The table belowindicates premium rate (i.e. premium collected*100/sum insured) charged by different insurance companies in Karnataka.

Insurance Company	**Average of Premium rate in 2013-14**	**Average of Premium rate in 2012-13**
Cholamandalam MS	16.00%	10.33%
IFFCO TOKIO	10.90%	10.86%
ICICI Lombard	10.68%	11.14%
AIC	10.64%	10.50%
HDFC ERGO	10.40%	9.15%
Average	**10.66%**	**10.51%**

(Source: secondary data collected from Ministry of Agriculture, Government of Karnataka)

4. During the Kharif 2013 season 91% of farmers said that they lost cropdue to various reasons. Among this distressed farmers, 45% of them quoted that reasons for crop loss are poor quality of seeds, insects, yellow disorder, Koleroga,etc which are not covered under the scheme. Thus WBCIS is not mitigating all kinds of crop losses and not benefitting needy farmers.
5. Nearly 85% of the farmers expressed that they are not happy with the claim amount received from insurance companies as the scheme is not compensating the full amount of loss incurred.The table belowindicates the opinion of Marginal, Small, Medium and Large scale farmers on insurance claim received by them.

Coverage of crop loss	1. Marginal	2. Small	3. Medium	4. Large	Grand Total
1.Not satisfactory	82.76%	86.79%	83.91%	93.75%	84.86%
2. Satisfactory	6.90%	6.60%	5.17%	0.00%	5.74%
3. Good	9.20%	5.66%	10.92%	6.25%	8.88%
4. Excellent	1.15%	0.94%	0.00%	0.00%	0.52%

Source: Primary data collected.

6. Insurance companies do not maintain farmers data base and only consolidated premium paid details with crop, season and area wise is shared to insurance company by the Banks. In this process there is a scope for a farmer to buy the same scheme in multiple banks by paying

nominal amount of premium and get settlement in all the banks. Insurance company pays settlement to all accounts of the same farmer in case of adverse weather parameters.

At the same time it gives scope for an insurance agent/ insurance company to create multiple account of a same farmer quoting same land survey number and avail subsidy benefit from the Central and State Government.

7. Premium collected from the farmers are credited along with the consolidated statement once notification period is over. If a farmer loses crop during this season on account of excess or no rain fall especially during sowing period, he would not get claim immediately as the premium might have not received from the banks to insurance company and hence Government subsidy is not granted to Insurance companies.It leads to delay in the process of claim settlement.
8. Sum insured under the scheme may not be equal to the loan amount borrowed by the farmers. Banks find it difficult to recover total amount of loan in case of crop loss.

To overcome the above challenges namely low awareness, high premium, improper assessment of crop loss, limited crop and perils coverage, data duplication, delay in claim settlement etc.,aneffective crop insurance scheme was required to be introduced.

3. The key features of PMFBY as per operating guidelines issued are as follows:

1. It is a comprehensive risk insurance which protects against all non - preventable risks arising out of natural fire, lightening, flood, droughts, landslide, pests, diseases etc.
2. Sum insured is equal to the scale of finance for that crop as fixed by District Level Technical Committee, which is based on threshold yield and Minimum support price for the crop.
3. Maximum insurance premium payable by thefarmer is fixed. On food and oilseed crops maximum premium is 2% of Sum insured (SI) during Kharif and 1.5% of SI during Rabi season and on horticulture and commercial crops maximum premium is only 5% of SI. The difference between farmers premium and actuarial premium rate as quoted by empanelled insurance company is considered as subsidy which will be shared equally by Central and State government.
4. The scheme can cover all crops for which historical yield data is available.
5. If the claim ratio of any insurance company at national level exceeds 350% of premium collected or 35% of SI whichever is higher, then Central and State government will share catastrophic loss in the ratio of 1:1.
6. The scheme is operated under area approach and CCE are conducted in notified area. If actual yield of a specific crop is lesser than calculated threshold yield, then all the insured farmers in that area will get insurance claim as per the shortfall and SI.

7. Adequate publicity is ensured at village level Melas, print media and sms messages which are to be sent to farmers three months before the starting of coverage period.
8. Smart technologies are being adopted to assess loss such as RST, Satellite images and yield estimates based on the records of previous CCE, etc, CCEs will be verified by using GPRS and camera enabled smartphones.
9. Information Technology (IT) tools are being used in theapplication process, data base management, online settlement of premium and claim etc. It has been made mandatory to produce Aadhar card and survey numbers while applying, which ensures no farmer is covered twice for the same crop and same area.The IT tools used, enables insurance companies to have consolidated list of farmers who have availed crop insurance and also helps to find farmers who have not availed crop insurance. Such farmers can be contacted to ensure the coverage.

The technical design, promotional campaigns, formation of SLCCM, etc.of PMFBY is more promising than any other crop insurance schemes launched till date in India. The financial performance of the scheme can be assessed only after claim settlement is assessed for a season.

4. Initial hurdles faced by implementing Crop insurance scheme in Karnataka:

1. Karnatak State has notified that a farmer can choose between any WBCIS and PMFBY. Other than horticulture crops (excluding cotton, onion and chilli) all other crops are covered under PMFBY. Farmers can not differentiate between WBCIS and PMFBY and when they approach Bank for borrowing the loan, it has become branch managers' discretion to select the scheme.
2. It has been made compulsory for all the farmers to file application online through 'Samrakshane' platform, which is expected to be filled by Bank Branch on farmer's behalf.

   All branches,whether it is Public/ Private/ Co-operative sector bank, in rural and semi-urban areaswhere farmers density is more have full workload from the beginning of the monsoon to till the end of July, as they need to process agricultural loans as well as crop insurance.

   Previously, the proposal forms were made only half a page by insurance companies and it was very simple to fill all the details in less than 5 minutes for a farmer. Many branch managers expressed their concern about the time consumed to filling up one application form online. With low internet band width, frequent network disconnect and server being very slow to respond, they are taking effectively 30 minutes to fill an application form. Branches are allowed to appoint data entry operator and train themto fill the required field in the platform. But to verify the data entered by them takes more time and for entry verification purpose they are collecting filled-in hard copy of proposal also, which has substantially increased the workload of Bank staff.

3. During the interaction with Branch Managers of a few Banks, it is noticed that they do not want to spend their productive time on Non-loanee borrower application process and they try to avoid their request quoting some evasive reply. The very purpose of introducing the online platform is to ensure transparency and accountability in the scheme implementation. It isa hindrance to coverall farmers under the scheme.

4. Aadhar cards are made mandatory for filing the application form, which ensures that no farmer is opting for the scheme in multiple places. However in the absence of Aadhar card many branches are collecting proposals, which may lead to benami farmers enrolments and availing undue benefit in the form of subsidy and claims by them.

5. The cost and administration of Crop Cutting Experiments are expected to be higher. The accuracy and challenges of the CCE after incorporating technology can be evaluated once it is practically exercised for a period.

6. Conclusion:

Any reform in crop insurance sector will be most effective only when it is accompanied by overall reform in the agricultural sector, which includes providing irrigation facility, empowering Research and Development activities to come up with high quality of seeds and fertilisers at affordable cost, creating high awareness about the latest farming technologies among the farmers community etc.Continuous and rigorous awareness programs should be conducted to train farmers on risk mitigating strategies which can be easily adopted by the farmers such as adopting multi cropping, adopting allied activities to agriculture such as Dairy, Poultry etc., engaging with non-agriculture based income earning activities, adopting drought/flood prone crops based on weather forecast, etc.Both the schemes have inherent strengths and weaknesses in the design and risk assessment. This is advisable to design a scheme scientifically where crop loss is assessed in combination of weather indicators and also with crop cutting experiments in a defined ratio.

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