



Crop Insurance in India – An Overview

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Abstract:

The study covers five major crop insurance schemes for the period of three years. It concluded that one of the main reasons for low levels of insurance penetration and density is the lack of awareness about the insurance products and the benefits of various insurance policies. The development of rural insurance products should have the specific needs and capacity of the rural population in mind. The farming community in India continually faces risks in crop production due to natural calamities right from the time of sowing to harvesting. Floods may wash away the growing fields, droughts may wither plants, diseases may attack during crop growth and hailstorms may wipe out months of farmers' labour and likely production in a single stroke.

Key Words: *Risk bearing, Indebtedness, Insurance penetration*

Introduction

Agriculture in India is highly susceptible to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season. For this purpose, the Government of India introduced many agricultural schemes throughout the country. Under the "Obligations of Insurers to Rural Social Sectors" of the Insurance Regulatory and Development Authority Act, 1999, the IRDA defines the rural sector as follows. "Rural sector" shall mean any place as per the latest census which has: (i) a population of not more than 5,000; (ii) a density of population of not more than 400 per square kilometer; and (iii) at least 75% of the male main working population⁵⁴ is engaged in agriculture.

The farming community in India continually faces risks in crop production due to natural calamities right from the time of sowing to harvesting. Floods may wash away the growing fields, droughts may wither plants, diseases may attack

during crop growth and hailstorms may wipe out months of farmers' labour and likely production in a single stroke. The yield uncertainty prevents farmers from maximizing production and discourages credit institutions from advancing loans for agricultural purposes. Further, the risk bearing capacity of majority of our farmers is limited due to scarce resources and man holdings. They cannot withstand risks which are disastrous in nature. A serious crop failure means not only the loss of farm income but also the loss of investment for the next crop season. This leads to their indebtedness. The risk burden of the farmers and the agricultural lenders can be reduced through crop insurance, which is primarily a way of protecting farmers against the element of chance in crop production. Crop insurance spreads the crop losses over space and time, provides social security to the farmers, helps in maintaining their dignity, offers self-help, encourages large investments in agriculture for improving crop yield and



increasing agricultural production. Moreover, the liability of the Government to bear the cost of relief measures to the farmers following crop failure is reduced to some extent as through crop insurance the farmers themselves contribute to their relief. Micro insurance products should be developed for under privileged people and for rural areas population products designed according to their needs and income. Insurance policy should be more transparent, reduce the administration charges and minimize hidden cost as much as possible. Insurance company should be provide quality products, better services, clarity in terms, discloser of hidden charges if any and minimum guarantee of the invested funds.

Objectives of the Study

- To present the obligations of the life insurers against Rural Sector and Social Sector.
- To analyze the various crop insurance schemes for the development of the rural sector.
- To draw few conclusions.

Sources of Data

The data has been collected from secondary data sources such as Annual Reports of IRDA, Survey reports, Journals, Magazines, Newspapers and web sites.

Sample Size: The study covers five major crop insurance schemes launched by the Agriculture Insurance Company of India Ltd (AIC) namely National Agricultural Insurance Scheme (NAIS), National Crop Insurance Programme (NCIP), Modified National Agricultural Insurance Scheme (MNAIS), Weather Based Crop Insurance Scheme (WBCIS) and Coconut Palm Insurance Scheme (CPIS).

Period of the Study

The period study covers a period of 3 years from 2010-11 to 2012-13

Obligations of Life Insurers for Rural Sector

During 2013-14, all the twenty three private sector life insurance companies had fulfilled their rural sector obligations. The number of policies underwritten by them in the rural sector as a percentage of the total policies underwritten in the year 2013-14 was as per the obligations applicable to them. The lone public sector insurer, Life Insurance Corporation of India was compliant with its obligations in the rural sector, by writing a higher percentage of policies in rural sector than the prescribed 25 per cent for 2013-14.

The life insurers had underwritten 103.98 lakh policies in the rural sector, viz., 25.5 per cent of the new individual policies (408.34 lakh policies) underwritten by them in 2013-14. LIC had underwritten 25.4 per cent of the new policies and private insurers underwrote 25.6 per cent of their new individual policies in the rural sector.

Obligations of Non-Life Insurers for Rural Sector

All the twenty two private non-life insurance companies were compliant with their rural sector obligations in the financial year 2013-14. The gross direct premium underwritten by them in the said sector, as a percentage of total premiums underwritten by them in the financial year 2013-14, was above the prescribed stipulations. All the public sector insurers complied with the rural sector obligations for the financial year 2013-14. With respect to public sector insurers, their obligation was seven per cent of the quantum of insurance



business written by them in the financial year 2013-14. All the non-life insurers underwrote a gross direct premium of Rs. 8,878 crore in the rural sector viz. 12.13 per cent of the gross direct premium underwritten (Rs. 73,208 crore) by them in the financial year 2013-14. Public and Private insurers underwrote 12.39 per cent and 11.83 per cent of their gross direct premium respectively in the rural sector.

Crop Insurance Schemes in India

The various flagship Schemes of Agriculture Insurance Company of India Ltd (AIC) and performance under such programmes are detailed as under:

National Agricultural Insurance Scheme (NAIS)

The Scheme was introduced during Rabi 1999-2000 season replacing Comprehensive Crop Insurance Scheme (CCIS). The scheme was implemented by Agriculture Insurance Company of India limited, on behalf of Ministry of Agriculture. The main objective of the scheme was to protect the farmers

against the losses suffered by them due to crop failure on account of natural calamities, such as drought, flood, hailstorm, cyclone, fire, pest/ diseases, etc., so as to indemnify the losses and restore their credit worthiness for the ensuing season. The scheme was available to all the farmers, both loanee and non-loanee, irrespective of the size of their holding. The scheme envisages coverage of all crops including cereals, millets, pulses, oilseeds and annual commercial and horticultural crops in respect of which past yield data is available. As per provisions of NAIS, the flat and capped premium rates were charged for food crops and oilseeds and actuarial rates were charged for annual commercial and horticultural crops. Premium subsidy of 10% was allowed for small and marginal farmers, shared equally by Central and State Government. However, some State and Union Territory Governments were also providing higher subsidy to small and marginal farmers and subsidy to other farmers.

Table 1: National Agricultural Insurance Scheme (NAIS) (RS. in Lakhs)

| S.NO. | Season | No. of Farmer Covered | Sum Insured | Premium | Claims Reported |
|-------|--------------|-----------------------|--------------|-------------|-----------------|
| 1 | Rabi 2010-11 | 49,67,878 | 11,01,055.62 | 29,816.72 | 65,792.83 |
| 2 | Kharif 2011 | 1,15,54,561 | 23,48,710.36 | 71,434.9 | 1,66,537.54 |
| 3 | Rabi 2011-12 | 52,39,299 | 11,28,393.63 | 25,767.81 | 54,548.2 |
| 4 | Kharif 2012 | 1,06,45,405 | 27,18,136.05 | 87,823.9 | 2,78,951.73 |
| 5 | Rabi 2012-13 | 61,36,713 | 15,70,211.63 | 44,680.56 | 1,90,410.87 |
| 6 | Kharif 2013 | 1,03,22,401 | 29,79,601.57 | 2,21,231.56 | 3,47,306.73 |

Source: Annual Reports of IRDA

Since introduction in 1999 till Kharif 2013 season, NAIS covered about 21.64 crore farmers insuring 31.50 crore hectare area for sum insured of Rs.317031.61 crore against a premium of Rs.9524.29 crore. Claims amounting to Rs.29,099.67 crore out of the reported

claims of Rs.30313.54 crore have so far been settled benefitting 5.68 crore farmers. During Kharif 2013 season under NAIS, 1.03 crore farmers spread over 433 districts of 26 states/ UTs were covered insuring 1.02 crore hectare with sum insured of Rs. 29,796.01 crore with



gross premium of Rs. 22,123 crore. Claims figure are likely to increase as claims for Kharif 2013 season have yet to be finally settled. The Government of India (GOI) withdrew this Scheme from Rabi 2013-14 seasons and introduced National Crop Insurance Programme (NCIP). However, GOI continued NAIS in 14 States/UT on request from concerned state/UT governments.

National Crop Insurance Programme (NCIP): The most important change is the introduction of NCIP from 1st November 2013 consequent to the withdrawal of NAIS. NCIP has three component schemes viz. Modified National Agriculture Insurance Scheme (MNAIS), Weather Based Crop Insurance Scheme (WBCIS) and Coconut Palm Insurance Scheme (CPIS). MNAIS and WBCIS are being implemented by AIC and 10 other insurance companies.

Modified National Agricultural Insurance Scheme (MNAIS): The scheme before incorporation in NCIP was piloted from Rabi 2010-11 to Kharif 2013. The modified version has many improvements viz. insurance unit for major crops are village panchayat or other equivalent

unit; in the case of prevented / failed sowing claims up to 25 per cent of the sum insured is payable, post-harvest losses caused by cyclonic rains are assessed at farm level for the crop harvested and left in 'cut & spread' condition up to a period of two weeks in coastal areas; individual farm level assessment of losses in case of localized calamities, like hailstorm and landslide; on-account payment up to 25 per cent of likely claim as advance, for providing immediate relief to farmers in case of severe calamities; threshold yield based on average yield of past seven years, excluding up to two years of declared natural calamities; minimum indemnity level of 80 per cent is available (instead of 60 per cent in NAIS); and premium rates are actuarial supported by up-front subsidy in premium, which ranges from 40 per cent to 75 per cent, equally shared by the centre and the states. Insurer is responsible for the claims liabilities. AICIL has been implementing MNAIS since its inception. During Kharif 2013, the pilot was implemented by AIC in 29 districts across 13 states and during Rabi 2013-14 as part of NCIP in 127 districts across 12 states.

Table :2:Modified National Agricultural Insurance Scheme (MNAIS) (Rs. in Lakhs)

| S.NO. | Season | Farmers Insured | Sum Insured | Gross Premium | Claims Payable |
|-------|--------------|-----------------|-------------|---------------|----------------|
| 1 | Rabi 2010-11 | 3,36,724 | 66,679.04 | 4,524.08 | 1,595.88 |
| 2 | Kharif 2011 | 4,17,831 | 1,12,748.71 | 11,128.92 | 7,673.22 |
| 3 | Rabi 2011-12 | 6,17,328 | 1,63,181.19 | 15,506.86 | 7,084.83 |
| 4 | Kharif 2012 | 16,05,834 | 4,38,423.01 | 51,101.48 | 60,380.15 |
| 5 | Rabi 2012-13 | 8,02,901 | 1,62,435.46 | 17,956.55 | 4,849.26 |
| 6 | Kharif 2013 | 13,16,210 | 4,06,225.84 | 49,275.25 | 61,259.13 |
| | Total | 50,96,828 | 13,49,693.3 | 1,49,493.1 | 142,842.5 |

Source: Annual Reports of IRDA



It is found that in the Kharif 2013, 0.13 crore farmers were covered insuring 0.15 crore hectare with sum insured of Rs. 4062.26 crore with gross premium of Rs. 492.75 crore. Since introduction as pilot in Rabi 2010-11 to Kharif 2013, MNAIS covered about 0.51 crore farmers insuring 0.57 crore hectare area for sum insured of Rs.13,496.93 crore against premium of Rs.1494.93 crore. Claims amounting to Rs.1,428.43 crore were paid benefitting more than 9 lakhs farmers.

Weather Based Crop Insurance Scheme (WBCIS)

Apart from the above two yield guarantee insurance schemes, the Government of India had introduced another pilot namely, Weather Based Crop Insurance Scheme (WBCIS) with effect from Kharif 2007, which became a full-fledged scheme as a component of NCIP with its introduction. The scheme operates on an actuarial basis with premium subsidy which ranges from 25 percent to 50 percent equally shared by the centre and states. AIC has since implemented the scheme in various states during all previous Kharif and Rabi

seasons starting Kharif 2007. WBCIS is a parametric insurance product designed to provide insurance protection to the cultivator against adverse weather incidence during the cultivation period, such as deficit and excess rainfall, frost, heat (temperature), relative humidity, wind speed etc., which are deemed to adversely impact the crop yield. Crops and 'Reference Unit Areas (RUA)' are notified before the commencement of the season by the state government. Each RUA is linked to a Reference Weather Station (RWS), on the basis of which payout/ claims are processed. The payouts are made on the basis of adverse variations in the current season's weather parameters as measured at Reference Weather Station (RWS). Claim under WBCIS is area based and automatic. The company insured more than 35 different crops including perennial crops like Apple, Citrus fruits, Grapes, Mango, Pomegranate, Cashew nut, Oil palm, etc. The scheme was implemented in 13 states in Kharif 2012 and 14 States in Rabi 2012-13. During Kharif 2013, the pilot was implemented by AIC in 112 districts across 13 states and during Rabi 2013-14 as part of NCIP in 123 districts across 14 states.

Table 3: Weather Based Crop Insurance Scheme (WBCIS) (Rs. in Lakhs)

| S.NO. | Season | Farmers Insured | Sum Insured | Gross Premium | Claims Payable |
|-------|--------------|-----------------|--------------|---------------|----------------|
| 1 | Kharif 2010 | 39,15,052 | 4,43,617.74 | 46,057.52 | 15,009.02 |
| 2 | Rabi 2010-11 | 28,22,499 | 5,24,668.32 | 42,756.08 | 28,888.11 |
| 3 | Kharif 2011 | 52,63,741 | 8,34,181.4 | 83,701.81 | 35,395.58 |
| 4 | Rabi 2011-12 | 31,69,805 | 6,69,468.05 | 55,741.28 | 58,133.95 |
| 5 | Kharif 2012 | 35,47,486 | 7,24,024.28 | 72,649.38 | 54,050.94 |
| 6 | Rabi 2012-13 | 37,06,628 | 6,46,507.53 | 57,552.46 | 78,056 |
| | Total | 2,24,25,211 | 38,42,467.32 | 3,58,458.53 | 2,69,533.6 |

Source: Annual Reports of IRDA



It is found that during Kharif 2013 season, 0.37 crore farmers were covered insuring 0.69 crore hectare with sum insured of Rs.6465.07 crore with gross premium of Rs.575 crore. Since introduction as pilot in Kharif 2007 to Kharif 2013, WBCIS covered about 3.05 crore farmers insuring 4.19 crore hectare area for sum insured of Rs.53725.74 crore against premium of Rs.5058.28 crore. Claims amounting Rs.3511.33 crore became payable benefitting more than 177 lakh farmers.

Coconut Palm Insurance Scheme (CPIS)

AIC in collaboration with Coconut Board designed a scheme for coconut viz., Coconut Palm Insurance Scheme (CPIS) which is now a component of NCIP. The scheme is available to all coconut growing states/UTs in the country. Dwarf and Hybrid coconut palms in age range of 4 to

60 year and tall variety coconut palms in age range of 7 to 60 years are eligible for coverage. On premium, 50 per cent subsidy will be paid by Coconut Development Board (CDB) and 25 percent by state government concerned and balance 25 percent of the premium will be paid by farmer / grower. In case, the state government does not agree to bear 25 percent share of premium, farmers / growers will be required to pay 50 percent of premium, if interested in the insurance scheme. Besides the above, AIC has developed various crop insurance products for risk mitigation of various crops viz. Rainfall Insurance Scheme-Coffee (RISC) in collaboration with Coffee Board, Rubber Plantation Insurance, Bio-Fuel Plants Insurance, Grapes Insurance, Mango Weather Insurance, Potato Contract Farming Insurance, Pulpwood Tree Insurance, Rabi Weather Insurance, and VarshaBima/ Rainfall Insurance.

Table 4:Coconut Palm Insurance Scheme (CPIS) (Rs in Lakhs)

| S.No. | Year | No. of Farmers | Sum Insured | Gross Premium | Claim Paid |
|-------|-------|----------------|-------------|---------------|------------|
| 1 | 2009 | 436 | 272.52 | 1.39 | 0 |
| 2 | 2010 | 34905 | 19842.46 | 104.79 | 121.57 |
| 3 | 2011 | 8444 | 5493.89 | 28.48 | 95.73 |
| 4 | 2012 | 9469 | 4780.29 | 31.48 | 31.19 |
| | Total | 53254 | 30389.15 | 166.13 | 248.48 |

Source: Annual Reports of IRDA

The above table reveals that the number of farmers availing benefit from the scheme is 436 in 2009 and it shown an increasing trend for remaining period. In 2012 witnessed 532 crores of farmers with sum insured of Rs. 303.89 crores with gross premium of 16.6 crores and claims amounting of Rs. 25.85 crores.

Conclusion: It is concluded that with the majority of the population still residing in

rural areas, the development of rural insurance products will be critical in driving overall insurance market development over the longer term. One of the main reasons for low levels of insurance penetration and density is the lack of awareness about the insurance products and the benefits of various insurance policies. Insurance education helps a consumer to understand their needs and risks, ascertain availability of



insurance for managing risks, appreciate their value of possessing an insurance product and to know about the do's & don'ts before and after purchase of an insurance policy. In general, the rural population is much more aware of life insurance than non-life insurance. It is quite common to refer to a life insurance policy as an "LIC" in the rural areas.

Micro insurance products should be developed for under privileged people and for rural areas population products designed according to their needs and income. Insurance policy should be more transparent, reduce the administration charges and minimize hidden cost as much as possible. Insurance company should be provide quality products, better services, clarity in terms, disclosure of hidden charges if any and minimum guarantee of the invested funds. The development of rural insurance products should have the specific needs and capacity of the rural population in mind. Firstly, the income pattern in rural areas is different from in urban areas. Despite government promotion, Crop insurance has remained a small part of the total

market. Most insurance companies see rural business as an obligation rather than an opportunity.

References

1. Tapen Sinha, "The Indian insurance industry: challenges and prospects", IIRM, India, 2003.
2. S.S. Raju & Ramesh Chand, "Agricultural Insurance in India Problems and Prospects", National Centre for Agricultural Economics and Policy Research, March 2008.
3. Pre-launch Survey Report of Insurance Awareness Campaign, Sponsored by IRDA, 2011.
4. Harnam Singh, Dr Madhurima Lall, "An Empirical Study of Life Insurance Product and Services in Rural Areas", International Journal of Multidisciplinary Research Vol.1 Issue 8, December 2011.
5. Karim. MH (Karim Koshteh), Kiyanoush Ghalavand, Karim Elyas, "Economic Security through Rural Insurance in India", IJACS/2012/4-15/1033-1038.