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Farmers Perception And Awareness About Agriculture Insurance Scheme – A Study Of North Karnataka

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Abstract

Agriculture is considered the backbone of Indian economy. The agriculture sector determines the growth and sustainability of Indian economy. About 52% of India's workforce and 21% of India's population still relies on agriculture for employment and livelihood. In spite of this, 197 farmers had committed suicide in 2015 in Karnataka (till September) and North-Karnataka accounted for 25 percent of such suicide cases compared to an average of 15 percent in remaining 5 regions of Karnataka (as per political map of Karnataka). As per the officials from agriculture department, none of the farmers who committed suicide had taken a crop insurance policy. These lives might have been saved if the crop is insured against climate change. As per the records of Agriculture Insurance Company of India (AIC) Ltd, only 16.3 percent of all farmers in Karnataka are covered under the NAIS. In the light of this observation, the researcher felt that it is high time to assess the awareness and existing knowledge about crop insurance among farmers. It is also necessary to assess perception of farmers about crop insurance. The study reveals that farmers have lot of faith in Pradhan Mantri Fasal Bima Yojana. They have strong confidence in PMFBY that it will provide security against Crop Loss. However, they opined that there is no provision in the policy for risk coverage of both Kharif and Rabi Seasons. It is suggested that crop insurance should be delivered along with crop loan through banks. The agriculture department (GOK) should conduct an awareness programme in collaboration with Management Educational Institutes. This will not only help in creation of awareness but also educating farmers about crop insurance

Keywords: Climate,Crop,Bank,Cultivation.

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1.INTRODUCTION

Agriculture is considered the backbone of Indian economy. The agriculture sector determines the growth and sustainability of Indian economy.[1]About 52% of India's workforce and 21% of India's population still relies on agriculture for employment and livelihood. The agriculture sector is expected to play a vital role in India economy as it helps in poverty alleviation, preventing migration, ensuring food security, creating employment opportunities, social upliftment, regional and industrial development, foreign exchange earnings, easing inflation, etc. but, this sector is exposed to many risk. Among theme climate change is considered to be the major one. In recent years, the climate change has badly affected the Indian agriculture sector. The climate change had affected the crop growth and quality, livestock health, farmers' productivity, soil quality, pests, etc. Due to this, the rate of agri-GDP growth had turned out to be 2 percent per annum against a target of 4 percent during the first three years of the 12th Five-Year plan (2012-17). The climate change is considered as major route cause for this problem.[2]

The Climate change may be in the form of drought, flooding, cyclone, increased carbon dioxide, increased heat, deteriorating soil quality, unseasonal rain, etc. All these events severely affect farmers through loss in agriculture output and income and these are not in the control of farmers. This had in turn affected farmers repayment capacity resulting in distress selling of agriculture land and increase in suicide cases.

Agricultural insurance is considered as an important mechanism to address the risk of agriculture output and income resulting from climate change. Agricultural Insurance is a means of protecting the farmers against financial losses due to uncertainties that may arise from all unforeseen risks beyond their control. Since independent, the Government of India and State Governments had launched National Agricultural Insurance Scheme (NAIS) to protect farmers against financial losses arising from agriculture losses due to climate change as well as manmade events. Approximately 30 million farmers, i.e. about 19% of the total farmer population are covered by agriculture insurance. In India there are currently three crop insurance programs that are concurrently running under the umbrella of what is known as National Crop Insurance Programme (NCIP).

a)National Agricultural Insurance Scheme (NAIS):

National Agricultural Insurance Scheme (NAIS) is the GOI sponsored Crop Insurance Scheme. The scheme was launched in the year 1999. The scheme is applicable to crop cultivated in Rabi season. The basic objective of the scheme is to provide financial support to the farmers in the event of failure of crops as a result of natural calamities, pests and diseases.[3] The scheme is implemented by Agriculture Insurance Company of India (AIC) Ltd.The scheme is available to all the farmers – loanee and non-loanee both - irrespective of their size of holding. All the crops have been covered by the scheme i.e. cereals, millets

and pulses, oilseeds and annual commercial/horticultural crops. The premium rates are 3.5% per cent (of sum insured) for bajra and oilseeds, 2.5% for other Kharif crops; 1.5% for wheat and 2% for other Rabi crops. In the case of commercial/ horticultural crops, actuarial rates are being charged. 50% subsidy in premium is allowed in respect of Small & Marginal farmers, to be shared equally by the Government of India and State/UT Govt. Presently the scheme is implemented by 24 States and 2 Union Territories. Since inception of the scheme and until (March 2015), 22.94 crores farmers have been covered over an area of 33.97 crore hectares insuring a sum amounting to Rs.349666.78 crore. The claims amounting to Rs. 33329.38 crores have been paid against the premium of about Rs.10598.75 crore benefiting about 5.92 crore farmers.

b) Modified National Agricultural Insurance Scheme (MNAIS):

To make agriculture insurance scheme easier and farmers' friendly, the government of India had introduced a Modified National Agriculture Insurance Scheme on full-fledged basis from 2012 onwards replacing existing insurance scheme. Under modified scheme, premium rates are worked out on actuarial basis, farmer pay premium net off subsidy.[4] The farmers have option for change of crop name after taking insurance coverage. Since inception of the scheme, 96.81 lakh farmers have been covered over an area of 108.36 lakh hectares insuring a sum amounting to Rs.21359.41 crore. The claims amounting to Rs. 1719.49 crores have been paid against the premium of about 2363.40 crore benefiting about 16.56 lakh farmers (upto 2015).

c) Weather Based Crop Insurance Scheme (WBCIS):

This scheme was launched in the year 2007 with the objective of covering the financial losses arising on account of crop loss resulting from incidence of adverse from adverse weather incidences such as rainfall, temperature, frost, heat, humidity un-seasonal rainfall etc. It is not Yield guarantee insurance. Etc. The major difference between NAIS and WBCIS is that the NAIS covers all risk whereas WBCIS covers only weather risks. The weather risks are mapped with monetary losses from nominal loss to total cost of cultivation. The premium has three components - farmer's share, state share and central share. Private insurance companies are allowed to participate in the scheme. They collect the premium but bear full claim responsibility. Under this scheme, the insurance of loanee farmers (farmers who have been extended credit through Kisan credit cards) is mandatory and for non-loanee farmers (farmers who don't have institutional credit), it is voluntary. Weather based Crop Insurance Scheme (WBCIS) operates on the concept of "Area Approach" i.e., for the purposes of compensation, a 'Reference Unit Area (RUA)' shall be deemed to be a homogeneous unit of Insurance. This RUA shall be notified before the commencement of the season by the State Government and all the insured cultivators of a particular insured crop in that Area will be deemed to be on par in the assessment of claims. Each RUA is linked to a Reference Weather Station (RWS), on the basis of which current weather data and the claims would be processed. In addition to Agriculture Insurance Company of India Ltd. (AIC) private General Insurance Companies i.e. ICICI-Lombard, IFFCO-TOKIO, HDFCERGO and Cholamandalam MS Ltd. have also been allowed for implementation of the scheme. From 2013 five more private insurance companies had also been allowed to participate in the scheme. Since inception of the scheme, 341.36 lakh farmers have been covered over an area of 459.87 lakh hectares insuring a sum amounting to Rs.62714.04 crore. The claims amounting to Rs. 4078.84 crores have been paid against the premium of about 5950.34 crore benefiting about 190.06 lakh farmers (upto 2015).

d) Pradhan Mantri Fasal Bima Yojana (PMFBY):

The Government of India had launched Pradhan Mantri Fasal Bima Yojana on 13th January 2016. Under the scheme, farmers will pay 2 per cent of premium fixed by insurance firms for Kharif crops and 1.5 per cent for Rabi crops. The remaining share of the premium, as in previous schemes, will continue to be borne equally by the Centre and the respective state governments. The government of India has allocated 3100 crores towards its share of the premium. The government has set a target of brining 50 percent crops under insurance in the next 3 years from the present level of 23 percent. The uniqueness of this scheme is that apart from Agriculture Insurance Company of India (AIC) Ltd, the public and private sector insurance companies have joined hands to offer insurance coverage. The companies who have joined the scheme include:

1) ICICI-Lombard General Insurance Company Ltd.
2) HDFC-ERGO General Insurance Company Ltd.
3) IFFCO-Tokio General Insurance Company Ltd.
4) Cholamandalam MS General Insurance Company Ltd.
5) Bajaj Allianz General Insurance Company Ltd.
6) Reliance General Insurance Company Ltd.
7) Future Generali India Insurance Company Ltd.
8) Tata-AIG General Insurance Company Ltd.
9) SBI General Insurance Company Ltd.
10) Universal Sompo General Insurance Company Ltd.

The government of India has also launched an aggressive campaign to promote the scheme.

2.Present Status of Crop Insurance Schemes in Karnataka

Agriculture is the major occupation for a majority of the rural population in Karnataka. As per the population Census 2011, agriculture supports 13.74 million workers, of which 23.61 percent are cultivators and 25.67 per cent agricultural workers. A total of 123,100 km of land is cultivated in Karnataka constituting 64.6 per cent of the total geographical area of the state. The agricultural sector of Karnataka is characterized by vast steppes of drought-prone region and sporadic patches of irrigated area.[5]Thus, a large portion of agricultural land in the state is exposed to the vagaries of monsoon with severe agro-climatic and resource constraints. More than 60 per cent of Karnataka's workforce engaged in Agriculture. Therefore, Agriculture sector is considered to be main driving force of Karnataka's economy.

However, there was a fall in agriculture share in state domestic product from 17.04 percent in 2007-08 to 15.94 percent in 2011-12. The share of agriculture sector in India's GDP was 5.20 percent in 2012-13 which had come down to 5.14 percent in 2013-14. Heavy rain had destroyed crops in 2013-14 resulting into fall in share of agriculture in state domestic product. The state had received 742.6 mm rainfall against the normal 673.7 mm, an excess of 10 per cent. The rainfall deficit was 45% in north interior Karnataka during the year 2015. Since 2011, all the districts of North-Karnataka region except Uttar Kannada were

affected by severe drought. Uttar Kannada was also under the clutches of drought during 2013-14 and 2014-15.

The severe drought had badly affected the farmers especially the marginal and small farmers who accounts for 76 percent of farming community in Karnataka. The government of Karnataka had declared North-Karnataka region as drought region from 2011 to 2015 and initiated various measures to protect the interest of farmers and to support their income generating activities. Mounting crop losses on account of drought and un-repayable debts followed by falling crop prices and faulty market support price system (manmade events) had forced the marginal and small farmers to take the extreme step of ending their lives by commuting suicide. According Agriculture Department statistics, 1,002 farmers have ended their lives from April 2015 to January 2016. With this, Karnataka has broken all previous records as far as farmer suicides are concerned.[6] While 156 farmers had committed suicide in 2008-09, 146 in 2009-10, 242 in 2010-11, 187 in 2011-12, 100 in 2012-13 and 58 in 2013-14, 48 had killed themselves in 2014-15. According to Ministry of Agriculture (GOI), 197 farmers had committed suicide in 2015 (till September) and North-Karnataka accounted for 25 percent of such suicide cases compared to an average of 15 percent in remaining 5 regions of Karnataka (as per political map of Karnataka). As per the officials from agriculture department, none of the farmers who committed suicide had taken a crop insurance policy.[7] These lives might have been saved if the crop is insured against climate change. As per the records of Agriculture Insurance Company of India (AIC) Ltd, only 16.3 percent of all farmers in Karnataka are covered under the NAIS. In the light of this observation, the researchers felt that it is high time to assess the awareness and existing knowledge about crop insurance among farmers.[8]It is also necessary to assess perception of farmers about crop insurance. There is a dire need to create awareness among farmers about crop insurance schemes. In this backdrop the present has been undertaken by the researchers.[9]

3.REVIEW OF LITERATURE

J. Sundar and Dr. Lalitha Ramakrishnan made an attempt to measures the awareness level and source of awareness among farmers about crop insurance.[10]They had also examined the farmers' perception about crop insurance and their willingness in paying for crop insurance. They found that farmers' awareness level about crop insurance was low. Most of the farmers were not willing to pay for crop insurance because of instable income, premium rate, no or low compensation, problems with distribution channel and lack of financial knowledge. Phillip Daniel Daninga and Zhang Qiao assessed farmers' attitude towards drought insurance in Bunda district and found that farmers had negative perception about drought insurance on account of compensation fairness, convenience of service delivery, program appropriateness, and government's protection to farmers.[11] They suggested that farmers' attitudes and perception should be incorporated in developing effective drought insurance in Tanzania. S.B. Goudappa, B. S. Reddy and S.M. Chandrashekhar had conducted a study on farmers' perception and awareness of crop insurance. The study was conducted in North Eastern parts of Karnataka because region receives very less rainfall compared to other part of Karnataka and people of this region always suffering from drought. The study revealed that majority of respondent (>80%) are not aware that crop insurance implementing agency and who pay's compensation. Almost all respondents are in the wrong perception that banks will pay compensation and are the implementing agency. More than three fourth of the insurance beneficiaries mentioned that bank compulsion was the motivation for opting insurance. Further more than 80% of respondents are not aware of extent of coverage premium paid, last date, procedure for insuring crops and method of loss determination and compensation worked out by agriculture insurance company.

4.RESEARCH PROBLEM

The government of India has launched insurance schemes to protect the farmers against climate change.[12] But, it was observed that insurance scheme have become just a policy documents and its reachability to farmers was not impressive as only 16.3 percent of farmers were covered by NAIS. This research is also intended to study the root cause for poor performance of the insurance schemes and suggest policy measures to overcome such problems. The research is also intended to investigate reasons for non-popularity of insurance scheme among farmers.[13]

5.OBJECTIVES OF THE STUDY

The study had been undertaken with the following objectives:

1. To measure the awareness level of Crop Insurance among farmers
2. To determine perception of farmers towards crop insurance
3. To investigate factors responsible for poor performance of crop insurance schemes
4. To offer suggestions to farmers for mitigation of risk against climate change
5. To offer policy recommendations

6.RESEARCH METHODOLOGY

This study is Descriptive in nature. 4 districts of North-Karnataka region where more number of suicide cases were reported have been selected for the purpose of study. 3 talukas have been selected from each district. 1 sample village is selected from select taluka and the details of the same are highlighted in the table-1. The field visit was conducted from January 2018 to June 2018. [14]

25 farmers were selected from each village as sample respondents. The total sample size is 375 respondents covering 15 villages. The data is collected through a Structured Questionnaire. A random sampling technique was used for selecting the villages and farmers. The responses were measured with a 5 pointer likert - type rating, where strongly agree (SA) = 5; Agree (A) = 4; Neutral (N) = 3; Disagree = 2; Strongly Disagree = 1. The data required for the study has also been collected from secondary sources such as Business-line newspaper, Website of Agriculture Insurance Company of India (AIC) Ltd, Karnataka State Natural Disaster Monitoring Centre and Department of Agriculture (GOK), research reports and journals. The study was conducted from January 2016 to June 2016. Data analyzed and presented in descriptive and narrative forms using mean, standard deviation, Z-score. The demographic profile of farmers and source of earnings were presented in table-2 and table-3 respectively.

TABLE-1
LIST OF SAMPLE VILLAGES

District	Sample Villages		
Bagalkote	Alagur, Jamkhandi Tq.	Dhavaleshwar, Mudhol Tq.	Kaladagi, Bagalkote Tq.
Belagavi	Jambagi, Athni Tq.	Belavadi, Bailahongal Tq.	Sulebhavi, Belagavi Tq.
Dharwad	Alagawadi, Navalgund Tq.	Mattigatti, Kundgol Tq.	Amminabhavi, Dharwad Tq.
Gadag	Benakanakoppa, Naragund Tq.	Bannikoppa, Shirahatti Tq.	Asundi, Gadag Tq.
Haveri	Naregal, Hanagal Tq.	Hattimattur, Savanur Tq.	Budagatti, Haveri Tq.

TABLE-2
DEMOGRAPHIC CHARACTERISTICS OF FARMERS

Attribute	Frequency	Percentage
Age		
Below 30	129	27.2
31-40	193	40.6
41-50	112	23.6
61 and above	41	8.6
Gender		
Male	442	93
Female	33	7
Educational Level		
No Formal Schooling	247	52
Primary (1st to 8th Std.)	172	36.2
Secondary (9th to 12th Std.)	38	8
Tertiary (Undergraduate)	14	2.9
Others	4	0.9
Household Size		
1-5	242	51
6-10	193	40.6
11 and above	40	8.4
Marital Status		
Single	72	15.2
Married	403	84.8
Agri. Land Holding Size		
Upto 2.5 acres	291	47.7
2.6 – 5.0 acres	184	31.0
Membership of Co-Operative Society/SHG		
Yes	190	40
No	285	60

TABLE-3

SOURCE OF EARNINGS OF FARMERS

Source of Earnings	Percentage
Agriculture	69
Dairying	6
Poultry	3
Wage Employment	21
Others including Livestock	1

Source: Fieldwork

RESULTS AND ANALYSIS

TABLE – 4

EVIDENCE OF CLIMATE CHANGE VARIABILITY

Evidence	Frequency	Percentage
Decrease in rainfall	475	100
Increase in temperature	475	100
Increase in drought frequency	475	100
Increase in heat stress on cattle	121	25.5
Deterioration in soil quality	69	14.5
Increase in crop pests	36	7.6
Increase in crop deceases	27	5.7
Increase in heat stress on agri-labours	58	12.2
Increase in flood frequency	43	9.1
Unseasonal Rain	311	65.5

The mean score of awareness about National Agricultural Insurance Scheme is 2.04. It means that respondents' average response was "Disagree" regarding awareness while the standard deviation for the responses was 0.14.[15.16] The mean score of awareness about Pradhan Mantri Fasal Bima Yojana is 4.28. It means that respondents' average response was "Agree" regarding awareness while the standard deviation for the responses was 0.14.[17] The mean score of awareness about weather based crop insurance scheme, seasons covered by crop insurance schemes, premium rate, risk covered, insurance amount, procedures of insuring crops, agency offering crop insurance, method of loss determination, claim settlement process and claim settlement period is around 1. It means that respondents' average response was "Disagree" regarding awareness.[18,19,20] In other words, the farmers are unaware about these criteria of crop insurance.

Majority of farmers came to know about Pradhan Mantri Fasal Bima Yojana through Mann Ki Baat programme which was telecasted on All India Radio on 31st January 2016.[21,22]

FINDINGS

1. The study reveals that farmers have lot of faith in Pradhan Mantri Fasal Bima Yojana. They are confident that PMFBY will provide security against Crop Loss. However, they opined that there is no provision in the policy for risk coverage of both Kharif and Rabi Seasons.
2. Farmers also opined that the premium rates are quite high and government is not offering subsidy of 75% to 80% on premium as promised by it.
3. The study also revealed that farmers do not have trust in insurance agents.
4. Majority of farmers opined that PMEBY is not available at the door step of farmers and the plan is meant for rich people and will benefit only rich farmers.
5. Majority of farmers came to know about Pradhan Mantri Fasal Bima Yojana through Mann Ki Baat programme which was telecasted on All India Radio on 31st January 2016.

SUGGESTIONS

1. Crop Loan Package: The crop insurance should be delivered along with crop loan through banks. This will not only ensure cost optimization but also more coverage.
2. It is high time that social participation of farmers need to be encouraged. The social participation is expected to increase crop insurance awareness.
3. The local agriculture department (GOK) should conduct an awareness programme in collaboration with Management Educational Institutes. This will not only help in creation of awareness but also educating farmers about crop insurance.
4. The farmers were sensitive to premium rate and compensation in time. The service providers have to concentrate on both. The service provider should provide compensation in time. For that the loss assessment was major factor which delays the claim in time. Therefore, it is suggested that Agriculture Department (GOK) should appoint or depute an authority in every district for loss assessment. It will greatly help the farmers to recover from bad agricultural years. This will influence non participating farmers to join PMEBY.
5. To be able to implement a PMEBY successfully, technical issues on the program implementation needs to be well prepared and information of the implementation modalities ought to be well shared among farmers.
6. It also suggested that government should release the subsidy on insurance premium on time. This is expected to influence the non-participating farmers to join PMEBY.

The government should explore possibility of developing a blended loan cum insurance product which not only provide crop loan but also include risk coverage against crop failure and risk coverage against price fall. Keeping in mind the local conditions, it is also necessary to design conventional and customised products. The outcomes of the study are expected to give a new direction to crop risk management.

TABLE-5
AWARENESS LEVEL ABOUT CROP INSURANCE

Awareness Criteria	Score					Total Score	Mean Score
	SD	D	N	A	SA		
	1	2	3	4	4		
National Agricultural Insurance Scheme	198	324	93	264	90	969	2.04
Modified National Agricultural Insurance Scheme	221	356	165	84	0	826	1.74
Weather Based Crop Insurance Scheme	279	368	36	0	0	683	1.44
Pradhan Mantri Fasal Bima Yojana	31	48	0	592	1360	2031	4.28
Seasons covered	281	364	27	12	0	684	1.44
Crops covered	235	368	33	48	165	849	1.79
Premium Rate	281	370	27	0	0	678	1.43
Risk covered	285	368	18	0	0	671	1.41
Insurance Amount	321	288	30	0	0	639	1.35
Procedures of Insuring Crops	330	290	0	0	0	620	1.31
Agency Offering Products	333	284	0	0	0	617	1.3
Method of Loss Determination	347	256	0	0	0	603	1.27
Claim Settlement Process	366	218	0	0	0	584	1.23
Claim Settlement Period	353	244	0	0	0	597	1.26

Source: Fieldwork

TABLE-6
PERCEPTION ABOUT PRADHAN MANTRI FASAL BIMA YOJANA

Perception Criteria	SD	D	N	A	SA	Total Score	Mean Score
	1	2	3	4	5		
Faith in Pradhan Mantri Fasal Bima Yojana	37	146	54	804	455	1496	3.56
Crop Insurance Policy under PMFBY is offered by Private Insurance Companies	28	54	906	176	95	1259	3
PMFBY offer security against Crop Loss	38	178	63	672	520	1471	3.5
Crop Insurance for Rich Farmers	0	24	72	292	1555	1943	4.63
PMFBY protects Investment of Farmers	69	208	267	408	280	1232	2.93
PMFBY reduces credit defaults of Farmers	29	58	912	164	85	1248	2.97
PMFBY will prevent farmers from taking extreme step of committing suicide	137	408	108	136	45	834	1.99
PMFBY is Agriculture Risk Mitigation Tool	7	90	930	160	90	1277	3.04
All agri-risks are covered under PMFBY	75	202	282	396	255	1210	2.88
All crops are included in PMFBY	80	198	288	380	250	1196	2.85
All agri-risks are covered by PMFBY	78	270	360	224	155	1087	2.59
Kharif and Rabi Seasons are included in PMFBY	128	436	96	116	65	841	2
Premium rate of PMFBY is low	137	358	198	120	40	853	2.03
Premium Subsidy offered is 75% to 80%	134	364	192	132	35	857	2.04
Premium Payment is exempted from Service Tax	65	204	348	372	220	1209	2.88
PMEBY is available at the door step of farmers	402	36	0	0	0	438	1.04
Mandatory for farmers to buy Policy	76	206	315	368	220	1185	2.82
Product is simple to understand	35	66	165	780	510	1556	3.71
Application process is simplified	32	46	945	116	105	1244	2.96
Fast and Easy availability of information	77	56	402	652	90	1277	3.04
Speedy settlement of claim	32	46	945	116	105	1244	2.96
Trust Brokers / Channelizing Agents	137	408	105	140	45	835	1.99
One Nation –One Scheme	42	50	912	124	90	1218	2.9

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