FARMERS OPINION ON PROSPECTS AND PROBLEMS IN THE IMPLEMENTATION OF GREEN INSURANCE

Abstract

Green insurance is an easy way for farmers to protect themselves against financial losses due to uncertainties they may arise due to crop failures or losses caused by unforeseen perils that are beyond their control. Green insurance covers risks of anticipated loss in yield of various crops. This paper aims to study the farmers' opinion on prospects and problems in the implementation of green insurance. Both primary and secondary data were used for the study. 600 sample respondents were selected by adopting stratified convenient sampling method. The collected data were analyzed with statistical tools such as weighted average score and Garrett Ranking method.

Keywords: Green Insurance, Farmers, Problems and Prospects.

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I. INTRODUCTION

Risk and uncertainties are common in agriculture due to the vary characteristic of agriculture i.e., dependence on nature. There are numerous factors that affect the returns from farming, many of which are beyond the control of farmers'. Occurrences of drought, flood, untimely rainfall, hailstorm, etc., are only a few among the long list of factors that affect the returns from farming directly. Green insurance can transfer the risk from the insured farmers' to the insurance agency. By paying a nominal premium amount, it facilitates the farmers' to receive larger compensations subject to the incidence of unforeseen loss. Insurance lends support to farmers' after distress. Compensation amount can help them start a new agricultural season after a bad year. At the same time, it reduces the burden on Government's disaster payments. In crop insurance schemes, as in other insurance, the insurer agrees to pay the sum insured in the event of realization of underlying risk, on payment of prescribed premium. Indeed, to make insurance programs successful, risk diversification through pooling across space and time is essential.

II. PROSPECTS IN THE IMPLEMENTATION OF GREEN INSURANCE

1. **Communication with Farmers:** To increase insurance coverage, it is necessary for the government and bank to effectively communicate to the farmers' about the value of insurance. Communication on time to farmers' regarding the purchase of green insurance within the due dates can be done through media, educational programs and group interaction.

Table 1: Communication with Farmers'

Sl. No.	Prospects	SA	A	SD	D	NO	Total	Weighted Average Score	Rank
1	Through Media	160	164	120	111	45	2083	3.47	III
2	Through Education Programs	200	169	96	89	46	2188	3.65	II
3	Through Group Interaction	198	189	90	92	31	2231	3.72	I

Source: Primary data

It is found from Table 1 that the first and foremost factor preferred by the respondents is Group Interaction because farmers' purchasing crop insurance largely depends on face to face interaction. This factor has got first rank as it is proved by the highest weighted mean score of 3.72. Communication through Education Programs and Media acquire second and third ranks respectively.

2. **Provide Subsidy:** The difference between actuarial premium rate and the rate of insurance charges payable by farmers' shall be treated as rate of normal premium subsidy, which shall be shared equally by the central and state. Table 2 shows that the provide subsidy to the farmers'.

Table 2: Provide Subsidy to the Farmers' - Garrett Rank

Sl. No.	Prospects	RANK					Total
		I	II	III	IV	V	
1	100% subsidy to below poverty line people	180	180	76	72	92	600
2	Subsidy for marginal farmers'	190	180	99	101	30	600
3	Subsidy for female farmers'	230	198	72	71	29	600
4	Extra insurance premium should be reduced	173	168	108	92	59	600
5	Subsidy increase from 50% to 75%	245	198	75	47	35	600

Source: Primary data

Table 3: Provide Subsidy to the Farmers' – Garrett Scores

Sl. No.	Prospects	RANK					Total
		I	II	III	IV	V	
1	100% subsidy to below poverty line people	180*76 =13680	180*61 =10980	76*50 =3800	72*40 =2880	92*25 =2300	33640
2	Provide Subsidy for marginal farmers'	190*76 =14440	180*61 =10980	99*50 =4950	101*40 =4040	30*25 =750	35160
3	Provide Subsidy for female farmers'	230*76 =17480	198*61 =12078	72*50 =3600	71*40 =2840	29*25 =725	36723
4	Extra premium should be reduced	173*76 =13148	168*61 =10248	108*50 =5400	92*40 =3680	59*25 =1475	33951
5	Subsidy increase from 50% to 75%	245*76 =18620	198*61 =12078	75*50 =3750	47*40 =1880	35*25 =875	37203

Source: Primary data

Table 4: Provide Subsidy to the Farmers' – Rank

Sl. No.	Prospects	Garrett Total Scores	Garrett Mean Scores	Garrett Rank
1	100% subsidy to below poverty line	33640	56.07	V
2	Provide Subsidy to Marginal Famers'	35160	58.60	III

3	Provide Subsidy to Female Farmers'	36723	61.20	II
4	Extra premium should be reduced	33951	56.59	IV
5	Subsidy increase from 50% to 75%	37203	62.01	I

Source: Primary data

Table 4 shows that the Garrett total scores for prospects in the implementation of green insurance. The Garrett Mean Scores ranking first is for 'Subsidy increase from 50% to 75%' (62.01). Second rank is assigned for 'to provide subsidy for female farmers' (61.20). Third rank is given to the statement 'to provide subsidy for marginal farmers' (58.60). Fourth rank is given for 'Extra insurance premium should be reduced' (56.59). The last rank is given to the statement '100% subsidy to below poverty line people' (56.07).

3. **Government Active Support to the Farmers:** The Government is implementing a number of insurance schemes to help the farmers' in reducing their yield losses. The table 5 shows the government active support to the farmers.

Table 5: Government Active Support to the Farmers' - Garrett Rank

Sl.No	Prospects	RANK							
		I	II	III	IV	V	VI	VII	Total
1	Correct information on weather patterns	158	107	68	55	78	89	45	600
2	Farms and Crops location	130	91	108	92	78	89	12	600
3	To provide information on history of perils and crop yields	143	96	97	62	92	77	33	600
4	To provide reinsurance	103	98	92	91	86	98	32	600
5	Making scheme voluntary	199	106	95	55	52	48	45	600
6	To provide financial support to the farmers	162	116	82	98	52	48	42	600

Source: Primary data

Table 6: Government Active Support to the Farmers' – Garrett Scores

Sl. No.	Prospects	RANK							Total
		I	II	III	IV	V	VI	VII	
1	Correct information on weather patterns	158*79 =12482	107*66 =7062	68*58 =3944	55*50 =2750	78*43 =3354	89*35 =3115	45*22 =990	33697
2	To Provide Farms and crops location	130*79 =10270	91*66 =6006	108*58 =6264	92*50 =4600	78*43 =3354	89*35 =3115	12*22 =264	33873
3	To provide information on history of perils and crop yields	143*79 =11297	96*66 =6336	97*58 =5626	62*50 =3100	92*43 =3956	77*35 =2696	33*22 =726	33737
4	To provide reinsurance	103*79 =8137	98*66 =6468	92*58 =5336	91*50 =4550	86*43 =3698	98*35 =3430	32*22 =704	32323
5	Making Scheme Voluntary	199*79 =15721	106*66 =6996	95*58 =5510	55*50 =2750	52*43 =2236	48*35 =1680	45*22 =990	35883
6	To provide financial support to the farmers	162*79 =12798	116*66 =7656	82*58 =4756	98*50 =4900	52*43 =2236	48*35 =1680	42*22 =924	34950

Source: Primary data

Table 7: Government Active Support to the Farmers' – Rank

Sl. No.	Prospects	Garrett Total Scores	Garrett Mean Scores	Garrett Rank
1	Correct information on weather patterns	33697	56.16	V
2	To provide farms and crops location	33873	56.46	III
3	To provide information on history of perils and crop yields	33737	56.23	IV
4	To provide reinsurance	32323	53.87	VI
5	Making Scheme Voluntary	35883	59.81	I
6	To provide financial support to the farmers	34950	58.25	II

Source: Primary data

The Table 7 shows the scores for prospects of implementing green insurance to the farmers'. The Garrett ranking is done according to the scores. First rank is given for the 'making scheme voluntary' (59.81). Second rank is assigned for green insurance gives financial support to the farmers' (58.25). The category of 'Location farm and crops' (56.46) has got third rank. Fourth rank is given to provide information on history of perils and crops' (56.23). Fifth rank is given for 'Correct information on weather patterns' (56.16). 'To provide reinsurance' (55.75) has got sixth rank. It is indicates the government provides correct information on history of perils and crop yield.

III. PROBLEMS IN THE IMPLEMENTATION OF GREEN INSURANCE

1. **Area Approach and Coverage:** Green insurance was implemented on the basis of area approach i.e. mandal, taluks and block. Table 8 shows that the areas approach and coverage.

Table 8: Area Approach and Coverage

Sl. No.	Problems	SA	A	SD	D	NO	TOTAL	Weighted Average Score	Rank
1	Non-availability of Past Records	185	188	83	98	46	2168	3.61	III
2	Variety of crops and varied agro climatic conditions	230	224	48	46	52	2334	3.89	I
3	Prohibitive Manpower and Infrastructure cost	193	198	92	85	32	2235	3.73	II

Source: Primary data

It is clearly seen from the Table 8 that the problems in the implementation of green insurance. The first factor is 'Variety of Crops and Varied agro Climatic Conditions' is the first as per its high score. The factors such as 'manpower and infrastructure cost is highly prohibited' and 'Non-availability of Past Records' are next in significance as their scores are comparatively less. It is concluded that large variety of crops, varied agro climatic conditions and manpower and infrastructure cost is highly prohibited is the main problem in the implementation of green insurance.

2. **Levels of Indemnity**: Usually, there are three levels of indemnity: 90 percent, 80 percent and 60 percent corresponding to low risk, medium risk and high risk areas that are available for crops, based on the coefficient of variation in their yield for past five years. Levels of indemnity are given in Table 9

Table 9: Levels of Indemnity

Sl. No.	Problems	SA	A	SD	D	NO	TOTAL	Weighted Average Score	Rank
1	60% does not adequately cover the risk	323	195	46	22	14	2591	4.32	I
2	80% to escalate the premium rates	231	230	46	47	46	2353	3.92	II
3	90% to increase the subsidy burden of the Government	186	138	88	142	46	2076	3.46	III

Source: Primary data

Table 9 clearly shows the problems in the implementation of green insurance in the level of indemnity. The category, '60% does not adequately cover the risk' is given the first rank by the farmers' and next comes the problem '80% to escalate the premium rates'. Third rank is occupied by the problem '90% to increase the subsidy burden of the Government'. It is concluded that majority of the farmers' are not satisfied with 60% of indemnity level.

3. **Process of Insurance Claim**: An insured producer should be aware that there are time requirements for submitting a loss claim. These can vary depending on the policy, so it is important for Insured farmers' to be familiar with the terms of their specific green insurance policy. Process of Claim are given in Table 10

Table 10: Process of Insurance Claim

Sl. No.	Problems	SA	A	SD	D	NO	Total	Weighted Average Score	Rank
1	Documentation process is very difficult	277	138	59	62	64	2302	3.84	I
2	Lack of accounting knowledge	198	189	92	92	29	2235	3.73	II
N	Lack of educational knowledge	172	188	108	118	14	2186	3.64	III

Source: Primary data

It is inferred from table 10 that the documentation process is very difficult is ranked first. Lack of accounting knowledge is in the next rank. The last (III) rank is given to lack of educational knowledge.

4. **Knowledge about Crop Cutting Experiments:** Crop Cutting Experiments are carried out on all important crops for the purpose of General Crop Estimation Surveys. The same yield is used for purpose of calculation of premium rates[2]. Table 11shows that the knowledge about crop cutting experiments.

Table 11: Knowledge about Crop Cutting Experiments

Sl. No.	Problems	SA	A	SD	D	NO	Total	Weighted Average Score	Rank
1	Improper conduct of crop cutting experiments	184	201	93	92	30	2217	3.70	II
2	Inadequate involvement of the farmers'	92	237	93	138	40	2003	3.34	III
3	Inaccurate reporting of the results of CCE's	230	250	56	46	18	2428	4.05	I

Source: Primary data

It is evident from Table 11 that the main problem in the implementation of green insurance is knowledge about crop cutting experiments. The factor 'Inaccurate reporting of the results of CCEs' is placed first as its score is higher than other factors. The factor 'Improper conduct of crop cutting experiments' is awarded second position as its score is lower than the earlier in the hierarchy. The other factor 'Inadequate involvement of the farmers'' is in the third position.

5. **Reasons for Delay in Settlement of Claim:** Yield data used for claims is generated under general crop estimation surveys by way of crop cutting experiments. Procedure of assessment and settlement of claims are automated processes and claim amount is credited to the insured farmers' bank account. No paper work is required to be done by insured farmers' or intermediaries[3]. The Table 12 gives the opinion of farmers' for the procedures of settlement of claims.

Table 12: **Reasons for Delay in Settlement of Claims**

Sl. No.	Problems	SA	A	SD	D	NO	Total	Weighted Average Score	Rank
1	Delay in receipt of crop yield estimates	184	278	92	46	0	2400	4.00	II
2	Delay in verification of yield data	231	303	20	46	0	2519	4.20	I
3	Payment of claims to farmers' through banking network	231	230	46	78	15	2384	3.97	III

Source: Primary data

As per Table 12 the highest score is given to the 'Delays in receipt of crop yield estimates'. The 'Delay in receipt of crop yield estimates' is in the next rank. The lowest score is given to the statement 'Payment of claims to the farmers' through banking network' is in the next rank.

6. **Lack of Promotion Techniques:** Agricultural insurance aims to provide insurance coverage and financial support to the farmers' in the failure of any of the notified crop. Table 6.3.6 shows the lack of promotion techniques in the implementation of green insurance.

Table 13: Lack of Promotion Techniques - Garrett Rank

Sl.No	Problems	RANK					Total
		I	II	III	IV	V	
1	Govt. agencies do not educate them properly	212	185	64	120	19	600
2	Do not understand the premium calculation	231	221	46	92	10	600
3	Agriculture department that gives information only to few farmers'	298	185	25	46	46	600
4	Political pressure for getting claims	46	92	93	138	231	600
5	Lack of technical knowledge	138	185	93	138	46	600

Source: Primary data

Table 14: Lack of Promotion Techniques – Garrett Scores

| Sl.No | Problems | RANK | | | | | Total |
		I	II	III	IV	V	
1	Govt. agencies do not educate them properly	212*76 =16112	185*61 =11285	64*50 =3200	120*40 =4800	19*25 =475	35872
2	Do not understand the premium calculation	231*76 =17556	221*61 =13481	46*50 =2300	92*40 =3680	10*25 =250	37627
3	Agriculture department that gives information only to few farmers'	298*76 =22648	185*61 =11285	25*50 =1250	46*40 =1840	46*25 =1150	38173
4	Political pressure for getting claims	46*76 =3496	92*61 =5612	93*50 =4650	138*40 =5520	231*25 =5775	25053
5	Lack of technical knowledge	138*76 =10488	185*61 =11285	93*50 =4650	138*40 =5520	46*25 =1150	33093

Source: Primary data

Table 15: Lack of Promotion Techniques – Rank

Sl. No.	Problems	Garrett Total Scores	Garrett Mean Scores	Garrett Rank
1	Govt. agencies do not educate them properly	35872	59.79	III
2	Do not understand the premium calculation	37627	62.71	II
3	Agriculture department that gives information only to few farmers'	38173	63.62	I
4	Political pressure for getting claims	25053	41.76	V
5	Lack of technical knowledge	33093	55.15	IV

Source: Primary data

The above table 15 shows garret total scores for problems in the implementation of green insurance promotion techniques. The factors are given to the garret mean scores of I rank is given for 'Agriculture department that gives information only to few farmers'' (63.62). II rank is assigned for farmers' who 'Don't understand the premium calculation' (62.71). III rank is given for 'Government agencies do not educate them

properly' (59.97). IV rank is given for 'Lack of technical knowledge' (55.15). The last rank is given to the statement 'Political pressure for getting claims' (41.76). Agriculture department is not properly implementing schemes as expressed by more than 60% of the respondents. Hence, there is a need to create awareness about green insurance to all the farmers'.

IV. FINDINGS OF THE STUDY

1. **Prospects in the implementation of Green Insurance**

   - **Communication with Farmers:** It is observed from the study that the most significant factors for the implementation of green insurance are 'Group interaction' and 'Education Programs'. These factors have got first (3.72) and second rank (3.65) as per the weighted average score.
   - **Provide Subsidy:** The farmers felt that the subsidy to be increased from 50% to 75%. Besides, they opined that the extra insurance premium should be reduced.
   - **Government Support to the Farmers:** The analysis disclosed that the farmers' had given first rank to 'Farmer making scheme voluntary'. The second rank was gives to provide financial support to the farmers'.

2. **Problems in the Implementation of Green Insurance**

   - **Area approach and Coverage:** The analysis emphasized that the farmers' were not satisfied with area approach and coverage of insurance. The main reasons were large variety of crops, varied agro climatic conditions, manpower and infrastructure cost which is highly prohibited. These reasons were ranked first and second based on the weighted average mean score method.
   - **Levels of indemnity:** The analysis proved that the farmers' had given first rank to indemnity with 60% which does not adequately cover the risk. The second rank was given to 80% to escalate the premium rates and third rank was given to 90% to increase the subsidiary burden of the government.
   - **Process of Insurance Claim:** Difficult documentation process and lack of accounting knowledge were the first and foremost problems faced by the farmers in the process of insurance claim. The result is supported by Weighted Average Mean Score Method.
   - **Knowledge about Crop Cutting Experiments:** The analysis revealed that the farmers' had assigned first rank (4.05) to inaccurate reporting of the results of crop cutting experiments. The second rank (3.70) was given to improper conduct of crop cutting experiments. These are the main problems in the implementation of green insurance.
   - **Reasons for Delay in Settlement of Claims:** The farmers' felt that the main reasons for the delay in settlement of claim was due to the delay in getting receipt of crop yield estimates and delay in verification of yield data. These reasons have ranked first and second based on the weighted Average Mean Score Method.
   - **Lack of Promotion Techniques**: The study showed that there was a lack of promotion activities in green insurance from the point of view of farmers'. The 'agriculture department only gives the information to few farmers' and 'the farmers'

are not able to understand the premium calculations'. Hence, these factors secured the first two positions i.e. the first and second ranks respectively.

V. SUGGESTIONS OF THE STUDY

1. Prospects in the implementation of Green Insurance

- **Communication with Farmers:** Group interaction with farmers' should be followed by agriculture department and bank; because, face to face interaction would create faith and trust on green insurance to the farmers'.
- **Government Active Support to the Farmers:** The Government and financial institutions should motivate the farmers' to involve in green insurance scheme. The banks should also display the list of all insured farmers' at the village panchayat office and also display the list of benefited farmers' with claim amount. The transparency has induced the other farmers' to take-up the green insurance scheme.

2. Problems in the implementation of Green Insurance

- **Area Approach and Coverage:** Green insurance was implemented on the basis of area approach i.e. mandal, taluka and block. In order to satisfy the farmers', the green insurance claims should be reduced to the village level.
- **Process of Claim**: Claim procedures and formalities should be simplified by bank which will encourage the farmers' to prefer green insurance scheme.
- **Levels of Indemnity:** Risk areas are used to define the indemnity limit which should be reconsidered based on the premium rates paid on green insurance.
- **Reason for Delay in Settlement of Claim:** Delay in receipt of yield estimate is the main reason for delay in the settlement of claims. Government should use available technologies in the fields of remote sensing, aerial imaginary, satellite, etc., that can help in acreage estimation, quicker yield estimation and loss estimation etc., with reduced manpower and infrastructure cost.

VI. CONCLUSION

Risk and uncertainties are very common in agriculture. Green insurance is an ex-ante adoption strategy which can transfer the risk from the insured farmers' to the insurer agency. Large-scale usage of technology for receipt of crop yield estimates, verification of yield data, timely settlement of claims, introduction of new distribution channels like post offices and private sector insurers are some of the green insurance support services required for effective implementation of the scheme. It helps the farmers' to meet unforeseen circumstances with courage and lead a peaceful life. Hence, they can contribute for the development of nation relentlessly.

REFERENCES

[1] Shrikrishna S. Mahajan and Amol H. Bobade (2012), "Growth of NAIS: A Study of Crop Insurance in India", BAUDDHIK, Vol.3, No.1, January-April, Pp.3.

[2] BindiyaKunal Soni and Jigna Trivedi (2013) they analysed "Crop Insurance: An Empirical Study on Awareness and Perceptions" GIAN JYOTI E- JOURNAL volume 3. Issue 2 (Apr – Jun 2013) ISSN 2250-348 X

[3] Sarangi Susil and Panigrahi Dibakar (2016), "Crop Insurance, the Backbone of Indian Farming Community Issues and Challenges." Journal of Engineering Research and Applications, Vol-6, Issue-1, PP- 39-47.

[4] Singh and Archana (2016): "Agriculture Insurance in India" Journal of Bimaquest, Vol-16, Issue-2, pp-69-95.

[5] Mohanapriya.T and SenthilkumarV.M (2017), "An Analysis on Problems in implementing National Agriculture Insurance Scheme with Special Reference to Erode Block" Asian Journal of Management , Issue 8 (3), pp: 681-687.

[6] Kumbalep Saraswathi and M. Devaraju (2018): "Awareness and Perceptions of Farmers about Crop Insurance-A Study in Kolar District of Karnataka State". International Journal of Advances in Science Engineering and Technology, Vol-6, Issue-1, ISSN-2321-8991, PP-90-94.

[7] Sona H. C. And Muniraju Y. (2018) "Status of crop Insurance in India: A Study with Reference to Kodagu District of Karanataka State." International Journal of Management Studies, Vol-5, Issue- 3(9), pp-1-13.

[8] Selvaraj A. (2015): "Crop Insurance: "A Study with Farmers Awareness and satisfaction." Research Article, International Journal of Current Research Vol-07, Issue-07, ISSN- 0975-833X, pp-18680-18687.