

Awareness and Perception of Farmers on Crop Insurance in Myanmar: A Case Study of Ayeyarwaddy Delta

Submitted By

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29/12/2020



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Introduction

Agriculture sector plays the largest portion of the population continued to be employed in Myanmar.

Crop damage caused by weather disaster is a critical issue among these cases in Myanmar.

Myanmar is the most natural disaster-prone countries in Asia with an estimated 50% of the total number of disaster in the country related to floods.

Crop insurance is one alternative to manage risk in yield loss by the farmers.

Introduction(Cont.)

In 2016, Global World Insurance Co(GWI) submitted a proposal to Insurance Business Regulatory Board(IBRB) under the Ministry of Planning & Finance

IBRB allowed Global World Insurance Co.,Ltd to do crop insurance as 2 years pilot project in Yangon, Mandalay, Magway, Ayarwaddy divisions on January 31, 2018.

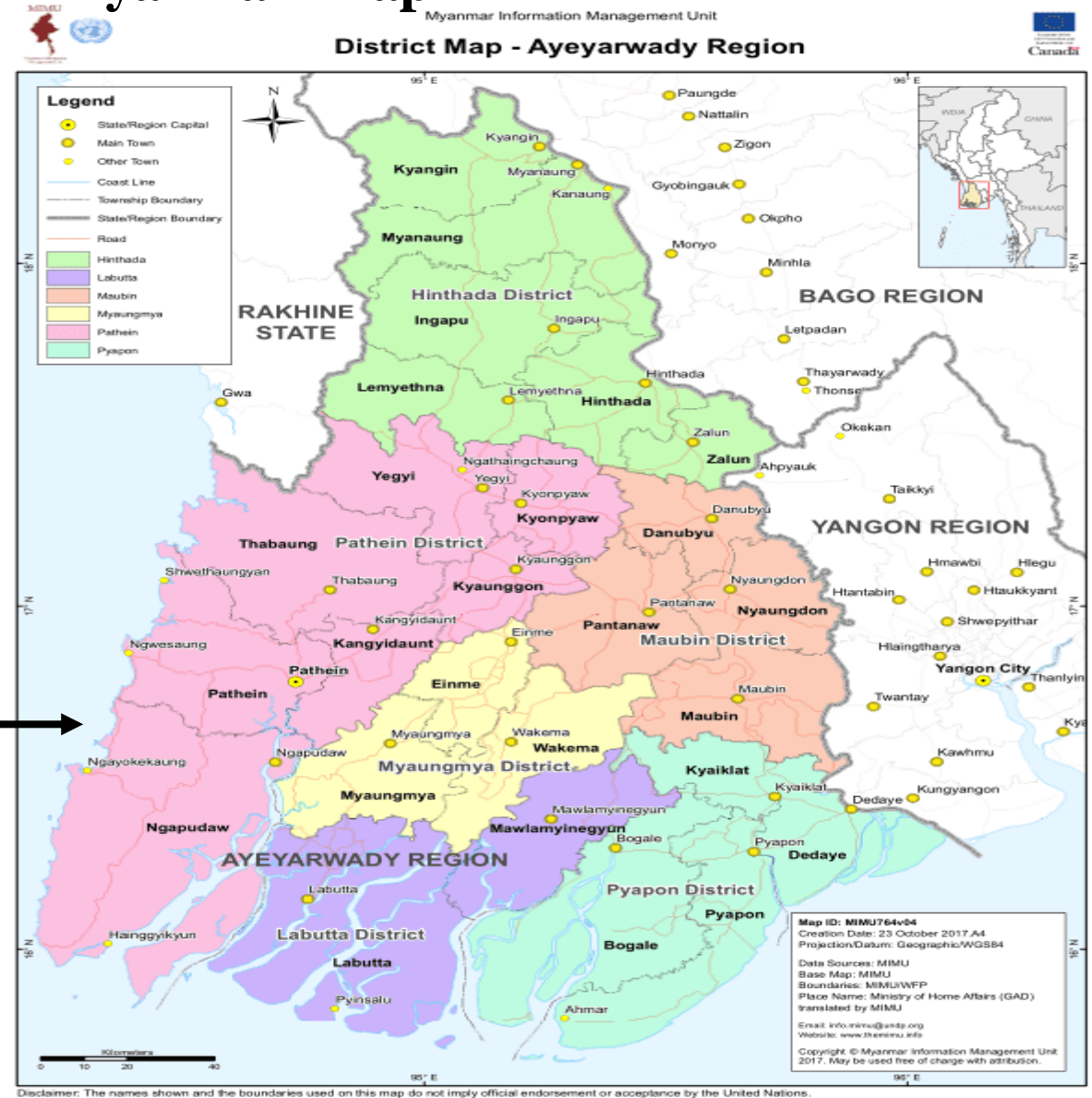
According to the project, crop insurance was started implementation in Ayeyarwaddy region during the 2018 rainy season.

It is a simple insurance system based on the Yield per Acre .Yields are lower than expected (50 basket of rice) due to unpredictable weather(such as flooding)

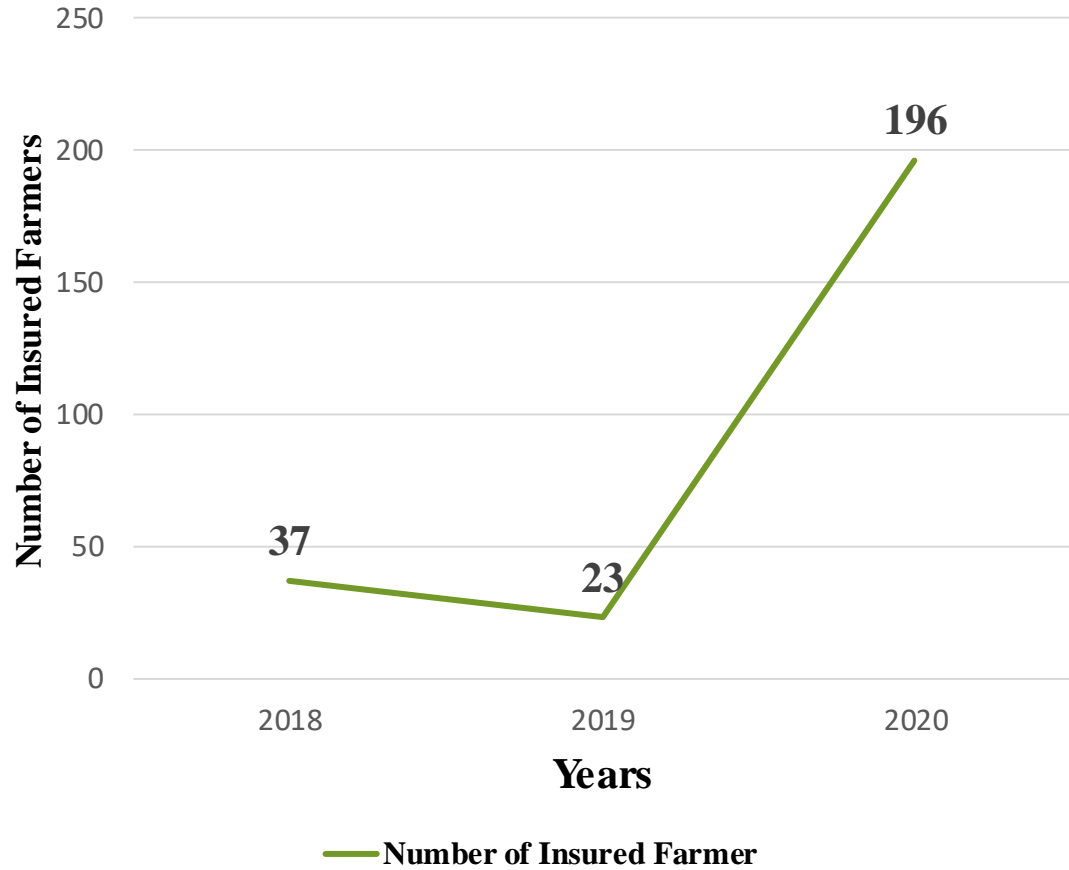
Only paddy (Raining & Summer) can be insured, term of insurance is (1) year.

The premium rate is (2%) of the sum insured. Premium must be paid before planting paddy at least 30 days.

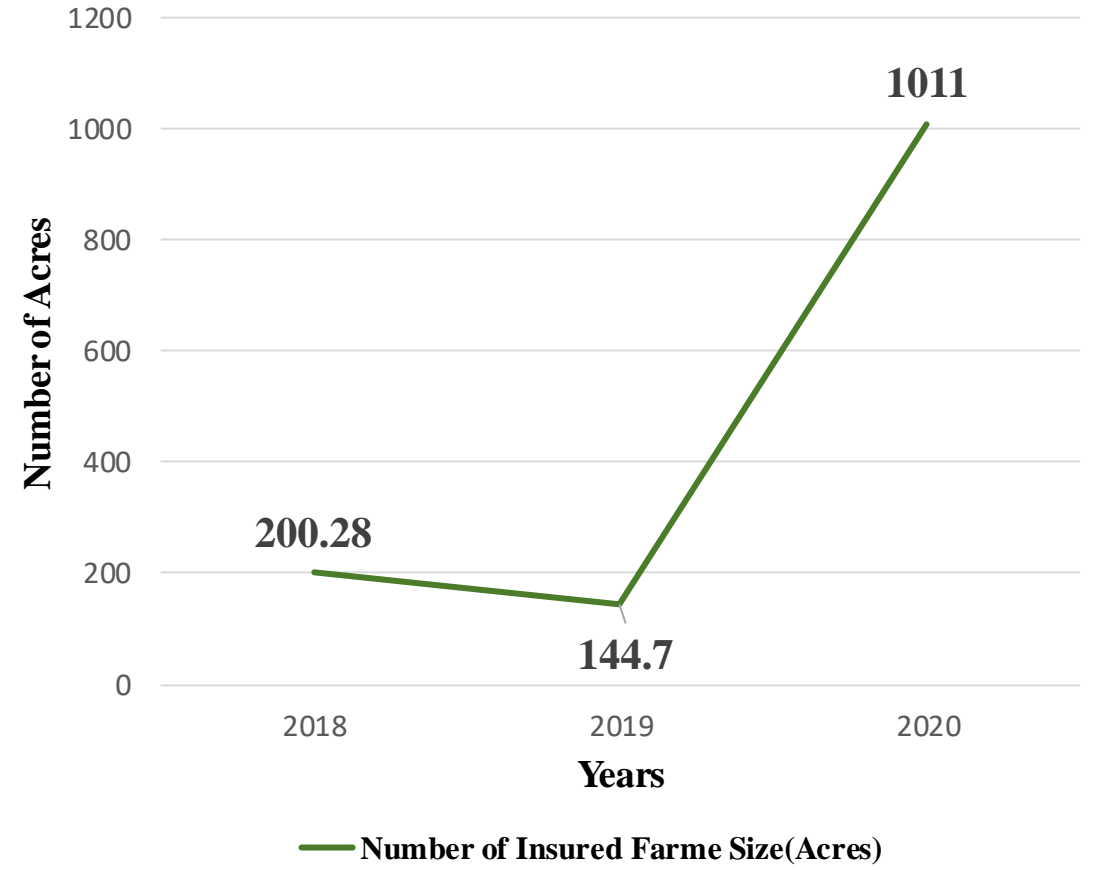
Ayeyarwaddy Region in Myanmar Map



The Number of Insured Farmers



The Number of Insured Farmers



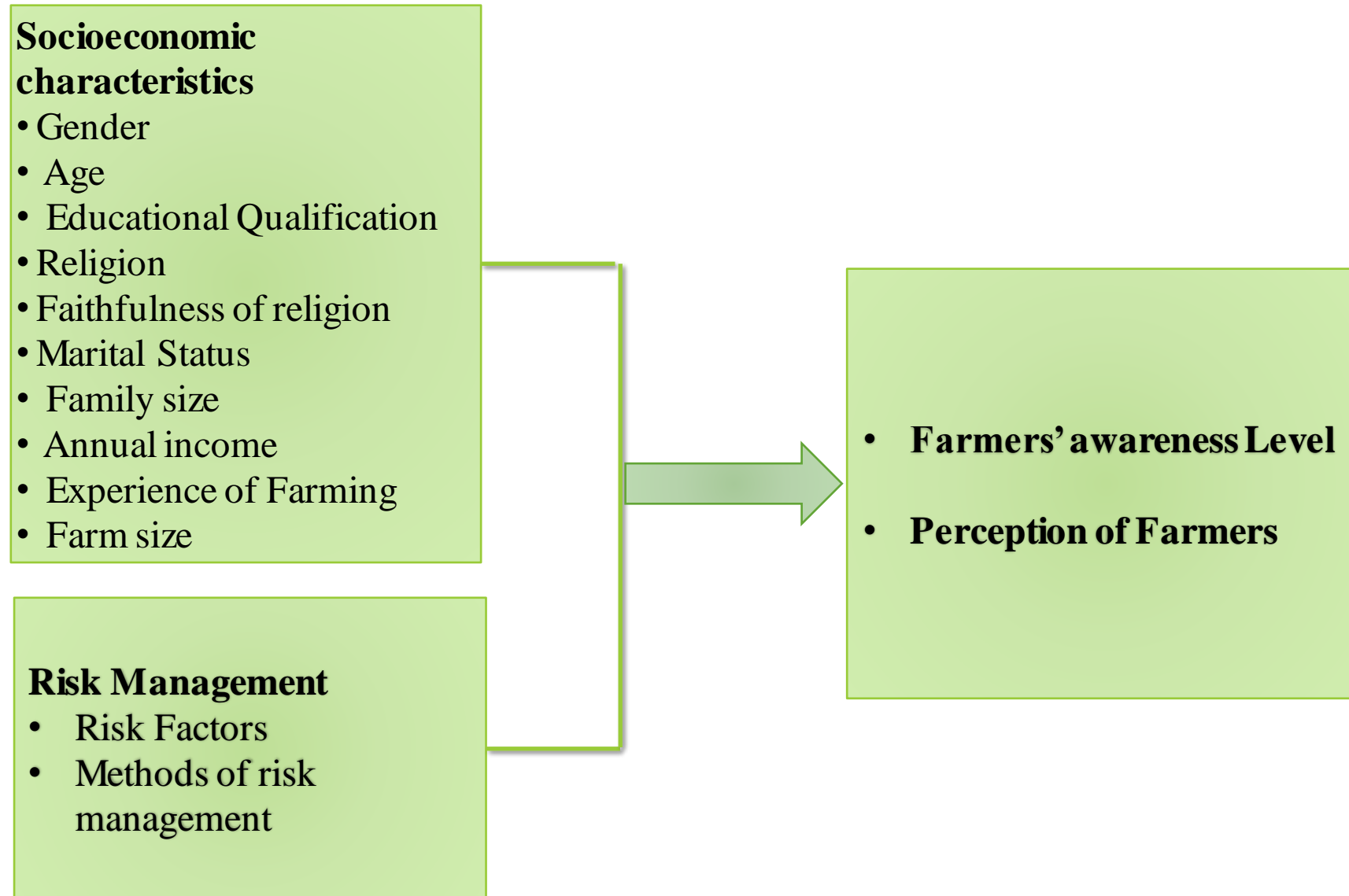
Literature Review

Crop insurance is a financial protection or cover purchased by agricultural producers, and others in agricultural value chain, to protect themselves against either loss of their crops due to natural disasters such as hail, drought, and floods or loss of revenue due to declines in the prices of agricultural commodities (Livata, 2009).

Awareness is an understanding of the activities of others, which provides a context for your own activity.((Dourish and Belloti,1992)

According to Kolter (2005), **perception** is a process through which information is received, selected, organized and interpreted by an individual.

Conceptual Framework



Objective of the study

The objectives of the study are as follows:

To assess the socioeconomic characteristics and the risk management of farmers in Ayeyarwaddy Delta.

To investigate the relationship between farmers' awareness about crop insurance and socioeconomic characteristics and risk management.

To analyze the relationship between farmers' perception about crop insurance and socioeconomic characteristics and risk management.



Hypothesis

Hypothesis 1: The socioeconomic characteristics (gender, age, education qualification, marital status, family size, annual income, experience of farming and farm size) are related to farmers' awareness about crop insurance.

Hypothesis 2: The risk management (risk factors and methods of risk management) are related to farmers' awareness about crop insurance.

Hypothesis 3: The socioeconomic characteristics (gender, age, education qualification, marital status, family size, annual income, experience of farming and farm size) are related to farmers' perception about crop insurance.

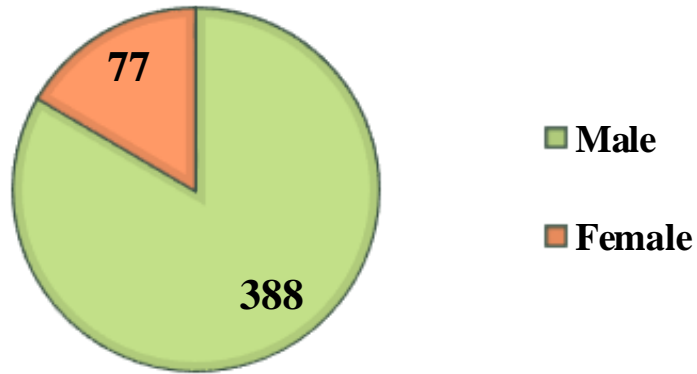
Hypothesis 4: The risk management (risk factors and methods of risk management) are related to farmers' perception about crop insurance.

Methodology

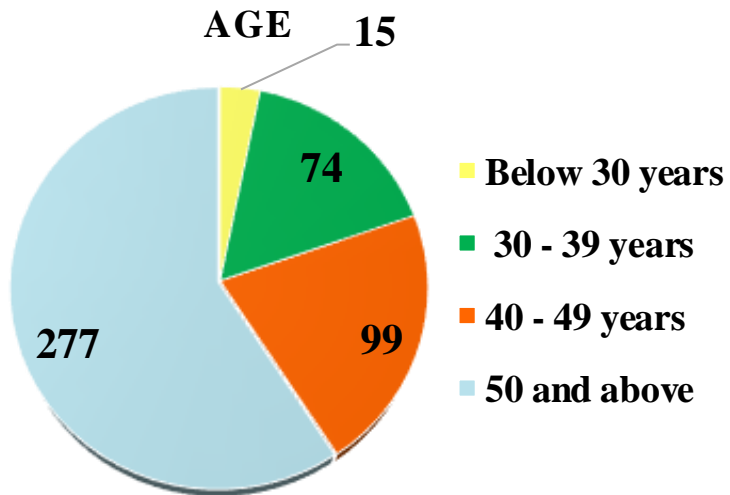
Sample Size	<ul style="list-style-type: none">• Hinthada, Kangyudaung and MawKyun in the Ayeyarwaddy Delta Region• 465 of insured and non-insured farmers from 26 villages
Primary Data	<ul style="list-style-type: none">• Structured questionnaire by using simple random sampling method• Seven-point Likert Scale
Secondary Data	<ul style="list-style-type: none">• Research journals & papers• Government Organizations and Insurance Company of Report• Text books• Website & Internet Information
Methods	<ul style="list-style-type: none">• Descriptive and Statistical methods
Statistical Tools	<ul style="list-style-type: none">• Simple percentage• Henry Garrett Ranking Technique• Cronbach's Alpha• Chi-square Test

Socioeconomics Characteristic of Farmers

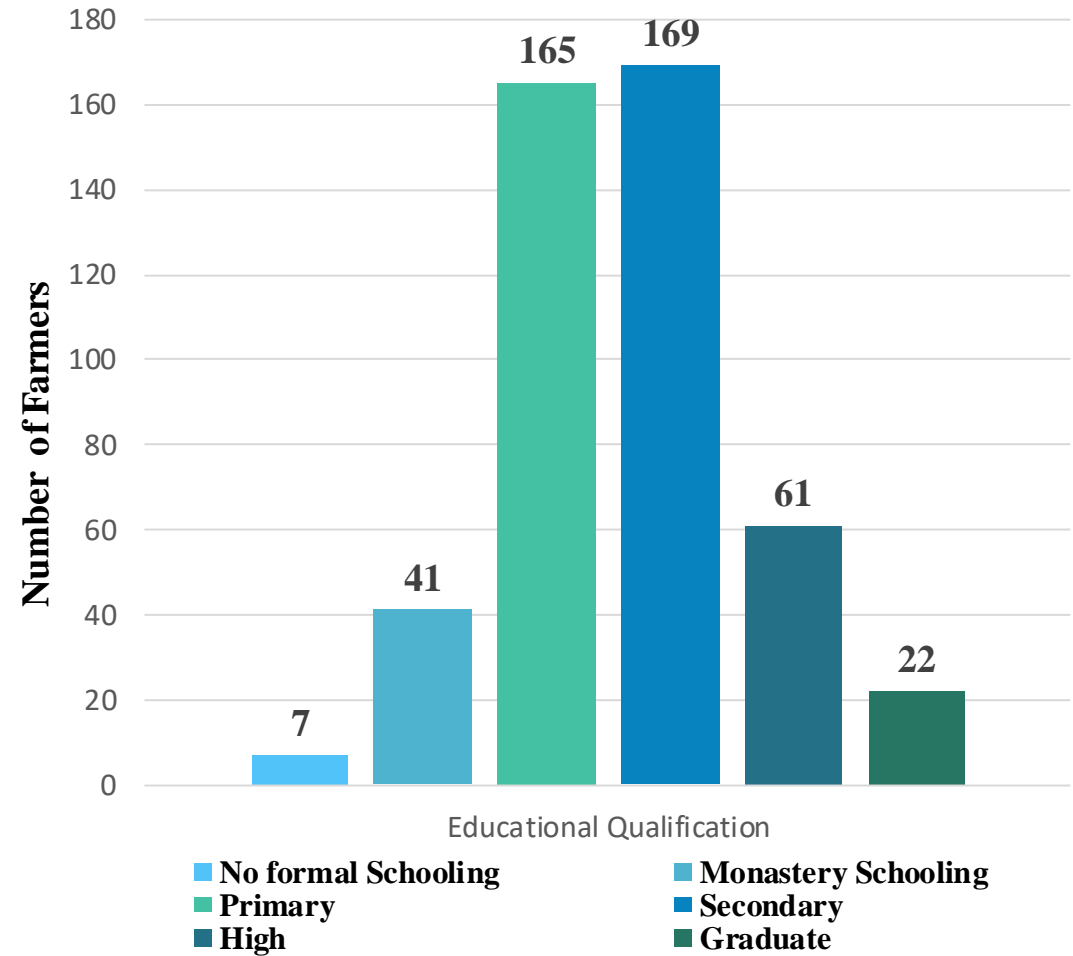
GENDER



AGE

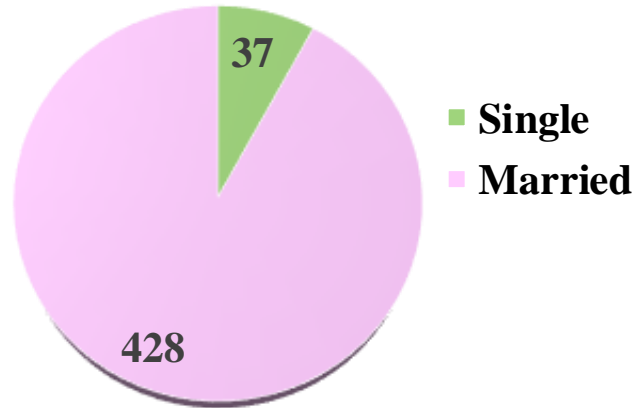


Educational Qualification

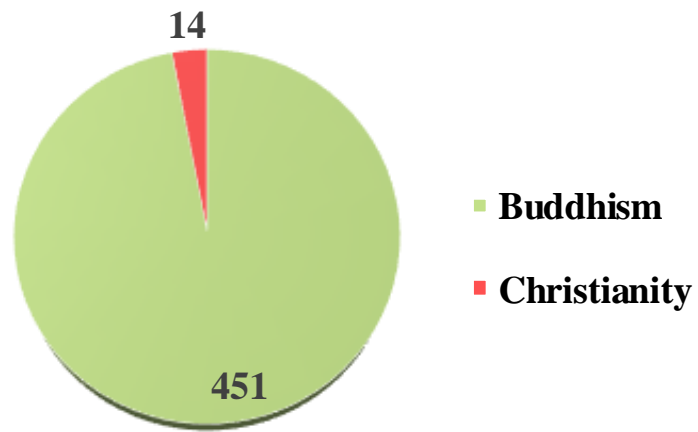


Socioeconomics Characteristic of Farmers

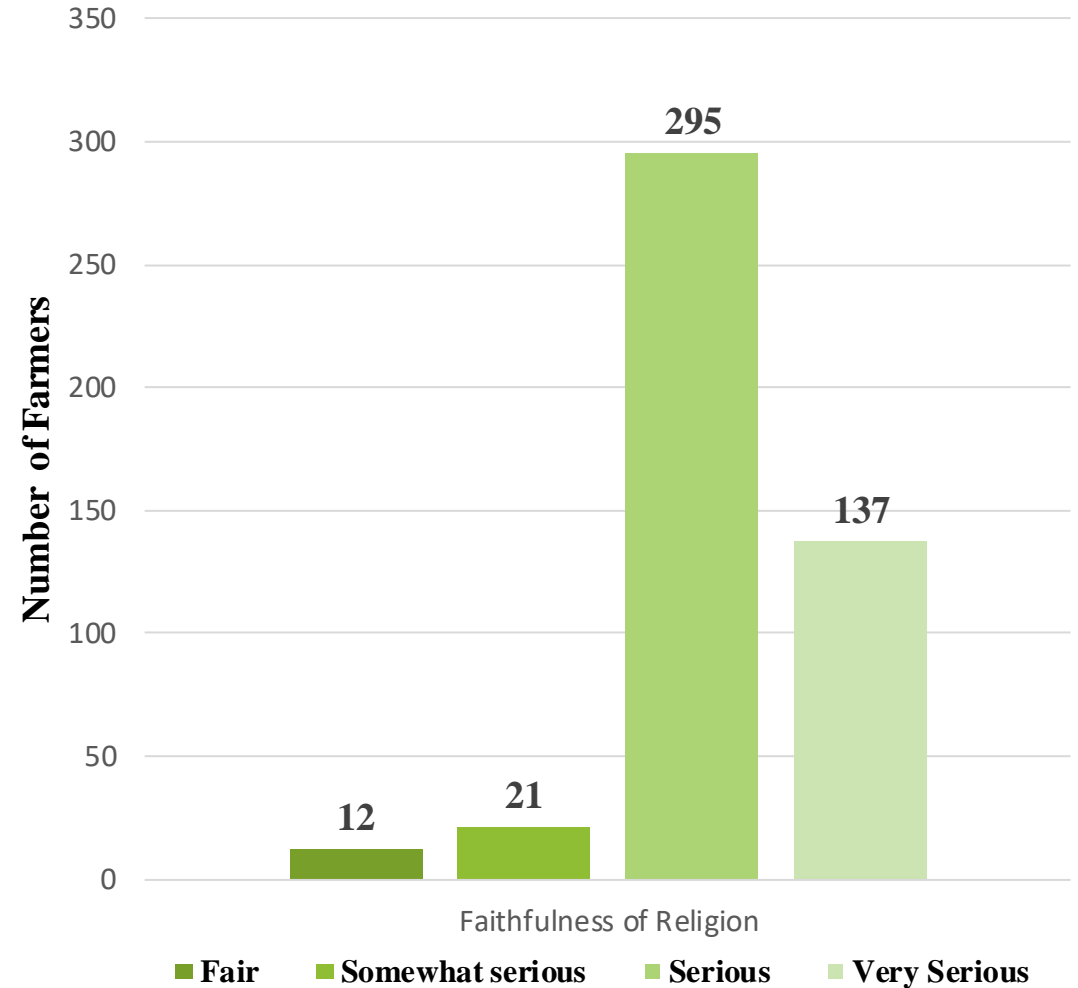
Marital Status



Religion

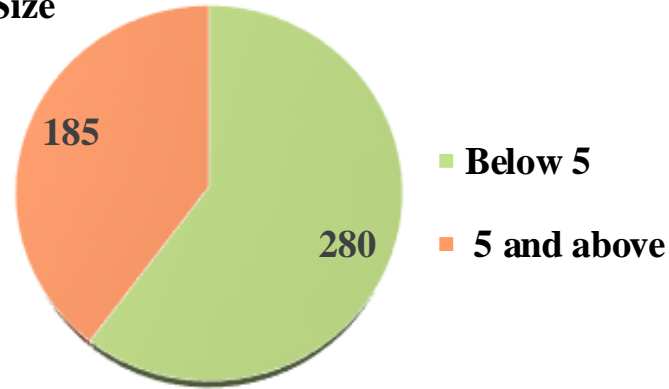


Faithfulness of Religion

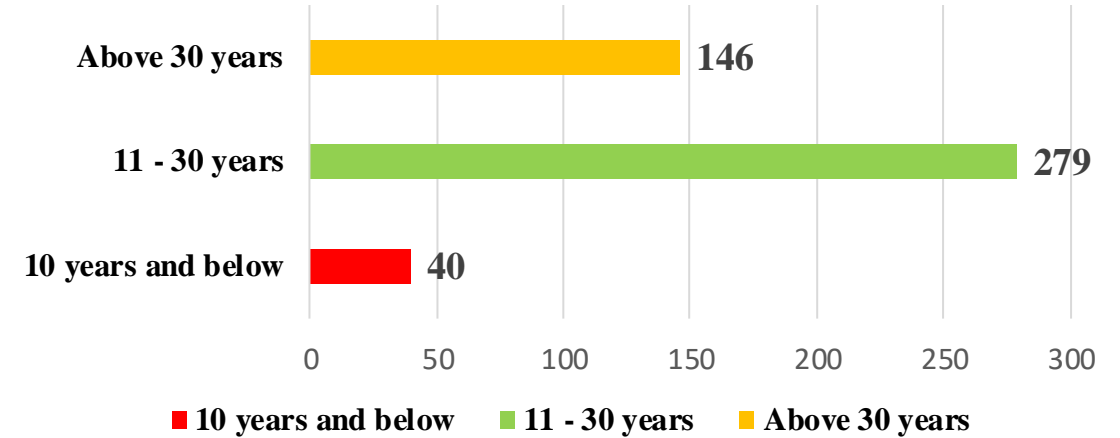


Socioeconomics Characteristic of Farmers

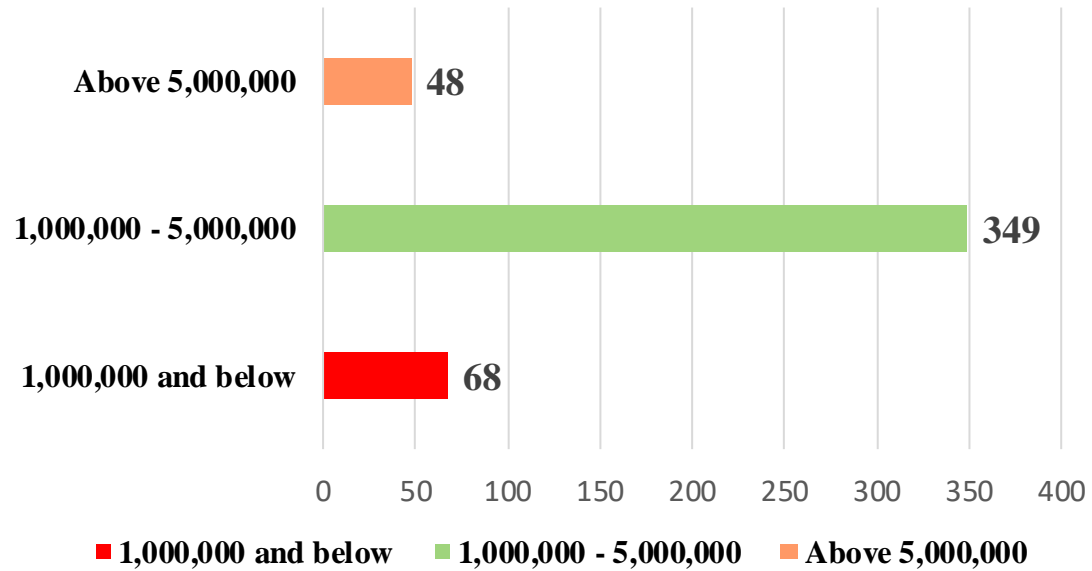
Family Size



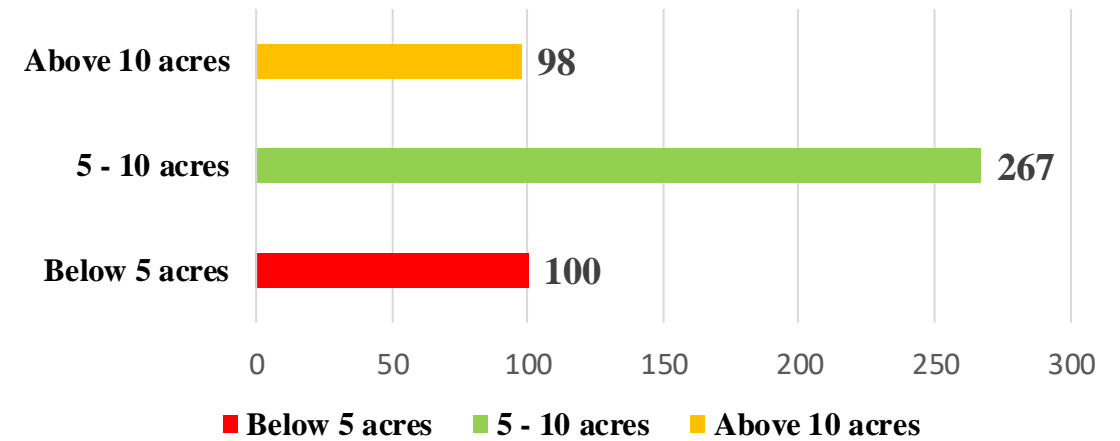
Experience of Farming (Years)



Annual Income of Farmers (MMK)

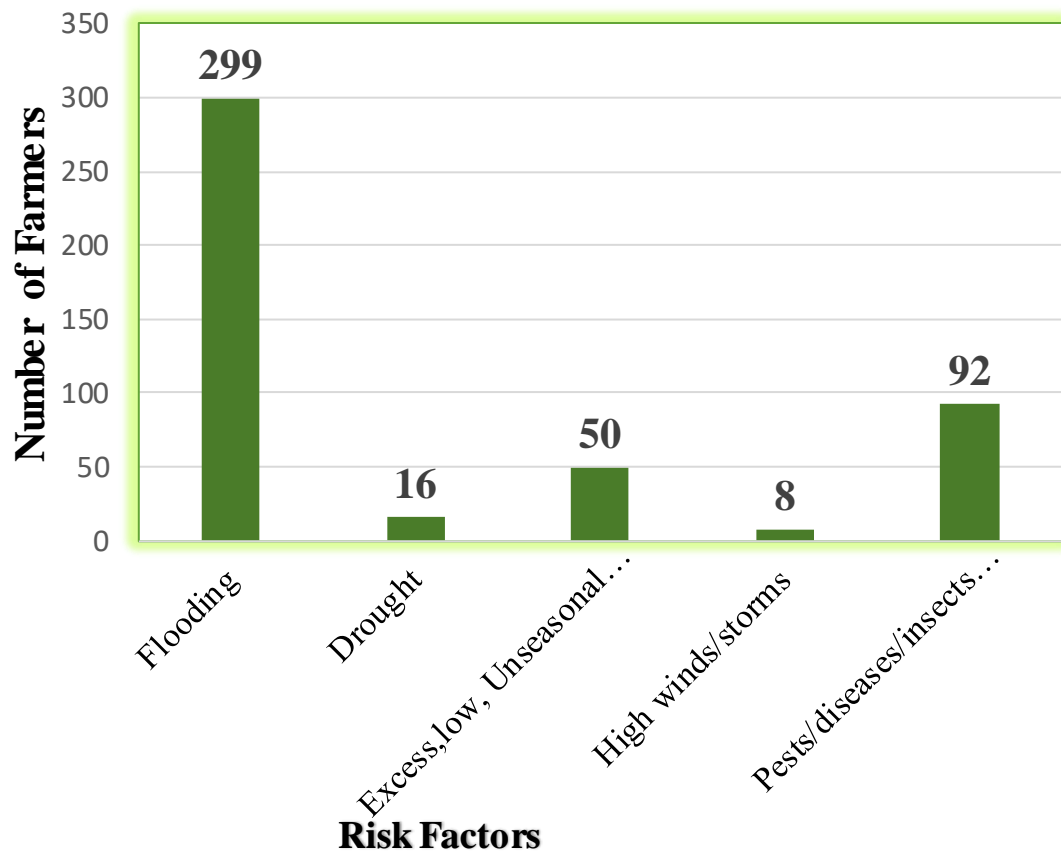


Farm Size (Acres)



Risk Factors and Methods of Risk Management of Farmers in Case of Crop Loss

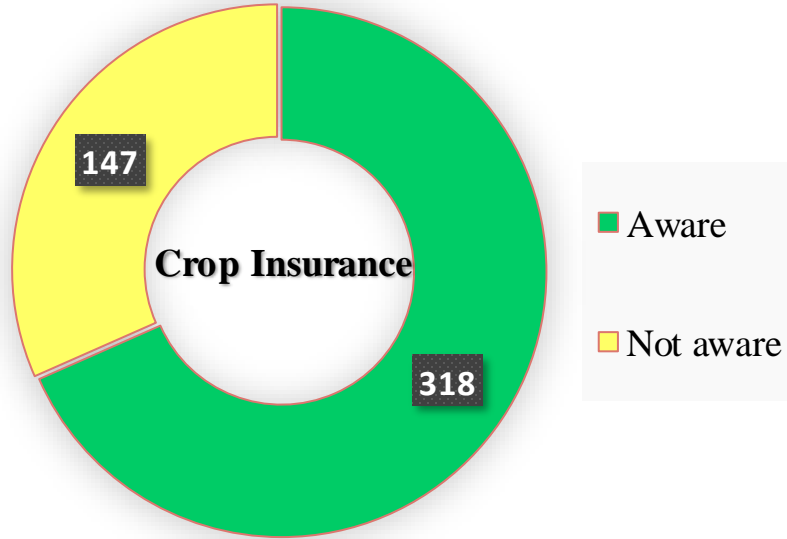
Risk Factors for Destruction of the crop



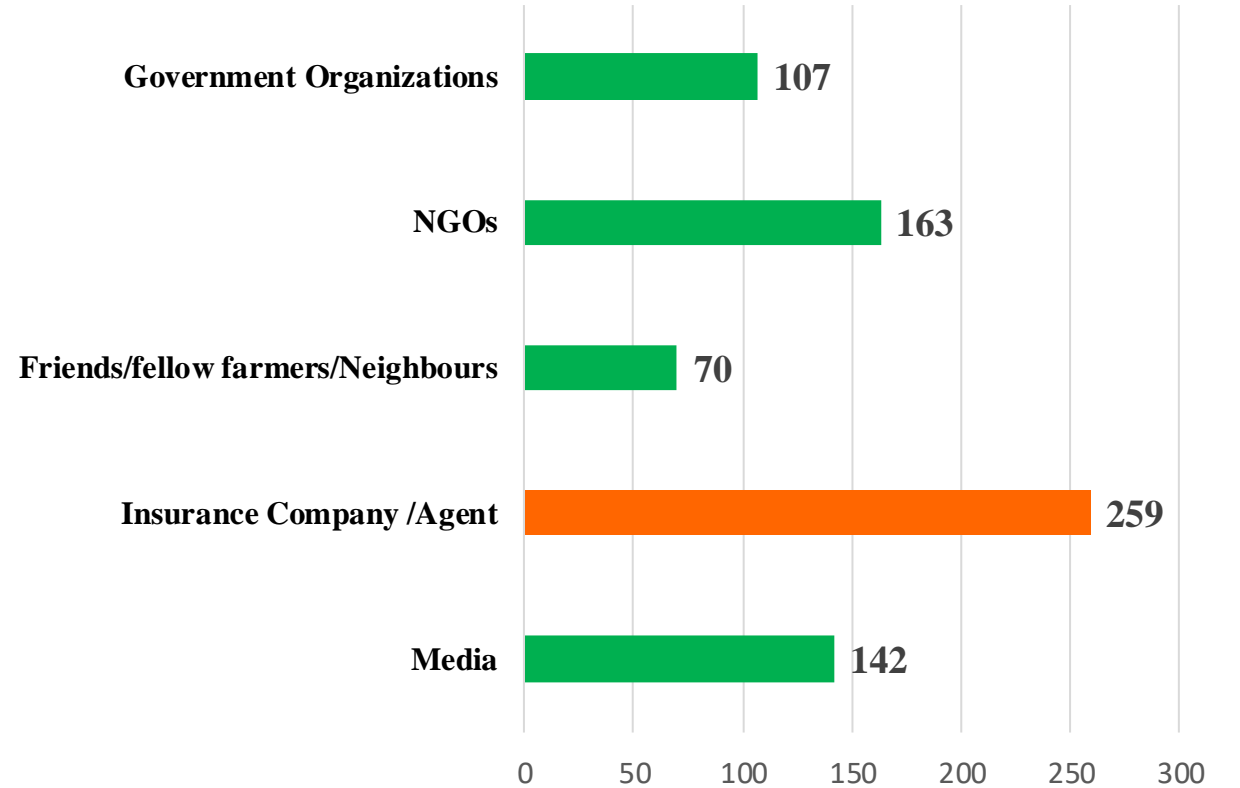
Methods of Risk Management	Garrett Mean Score	Rank
Sales of Fixed Assets/Livestock	40.99	IV
Loan (Friends/ Relatives /Bank/Credit Union)	54.34	III
Loan with collateral	61.02	I
Government subsidiary	54.85	II
Crop Insurance	37.85	V

Farmers' Awareness on Crop Insurance

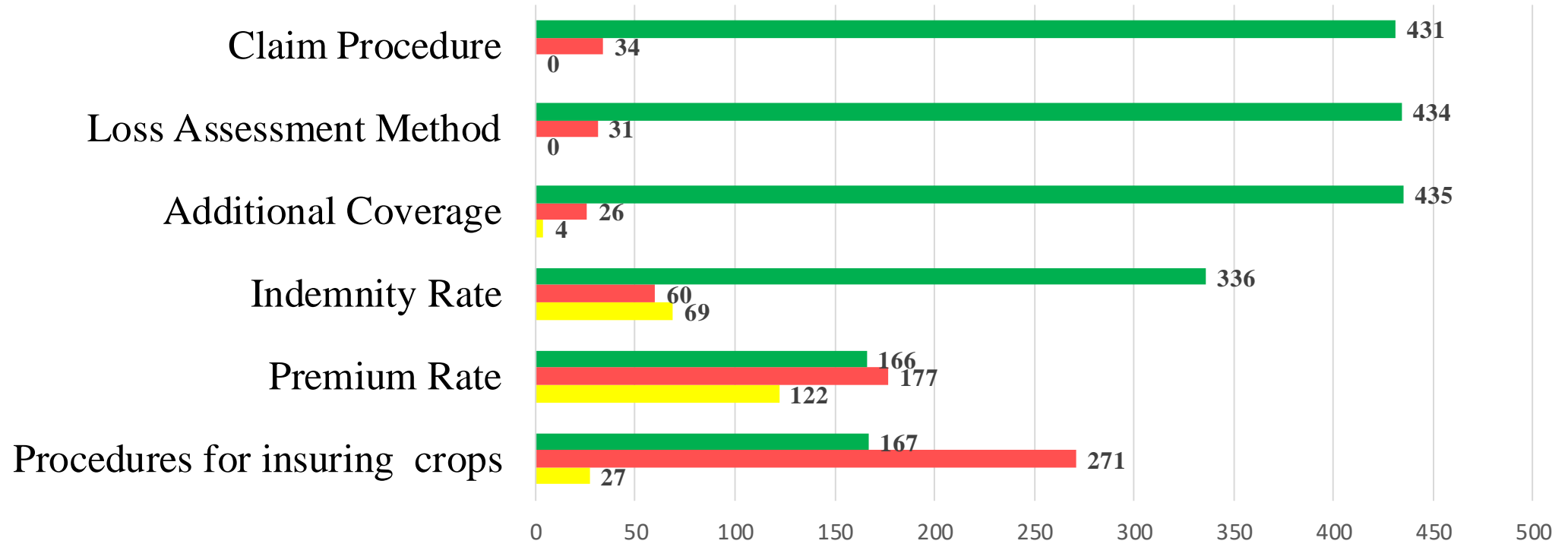
Farmers' Awareness on Crop Insurance



Sources of Information on Crop Insurance



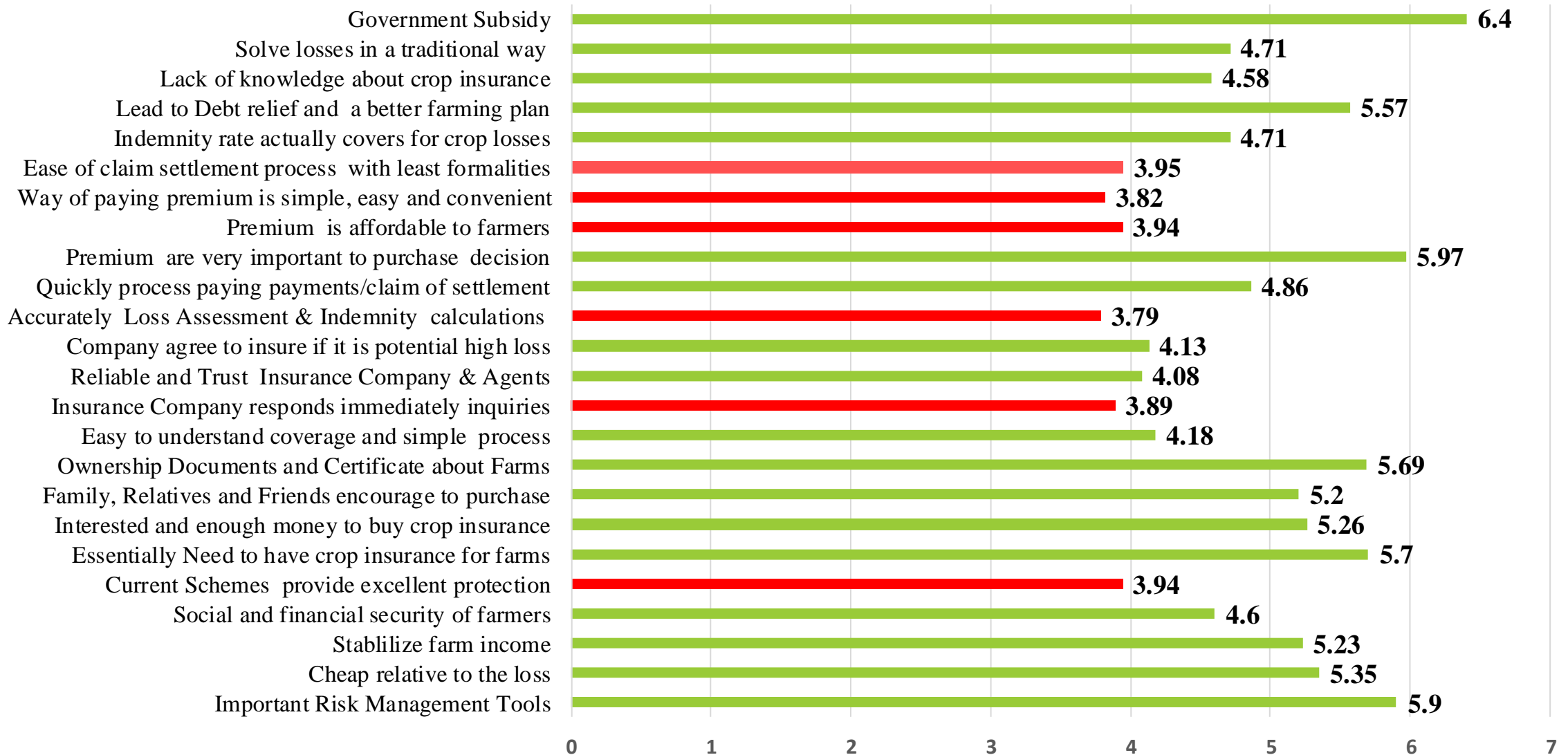
Farmers' Awareness Level on Crop Insurance Scheme



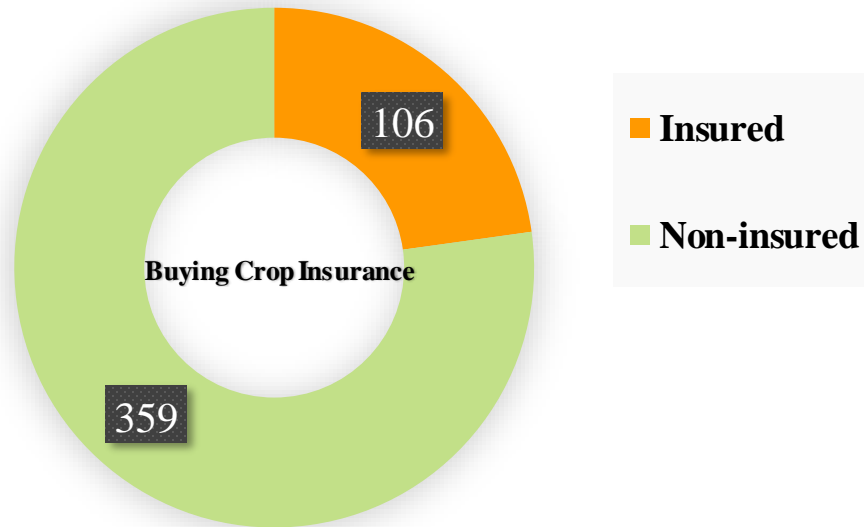
	Procedures for insuring crops	Premium Rate	Indemnity Rate	Additional Coverage	Loss Assessment Method	Claim Procedure
■ Not aware	167	166	336	435	434	431
■ Partially aware	271	177	60	26	31	34
■ Fully aware	27	122	69	4	0	0

■ Not aware
 ■ Partially aware
 ■ Fully aware

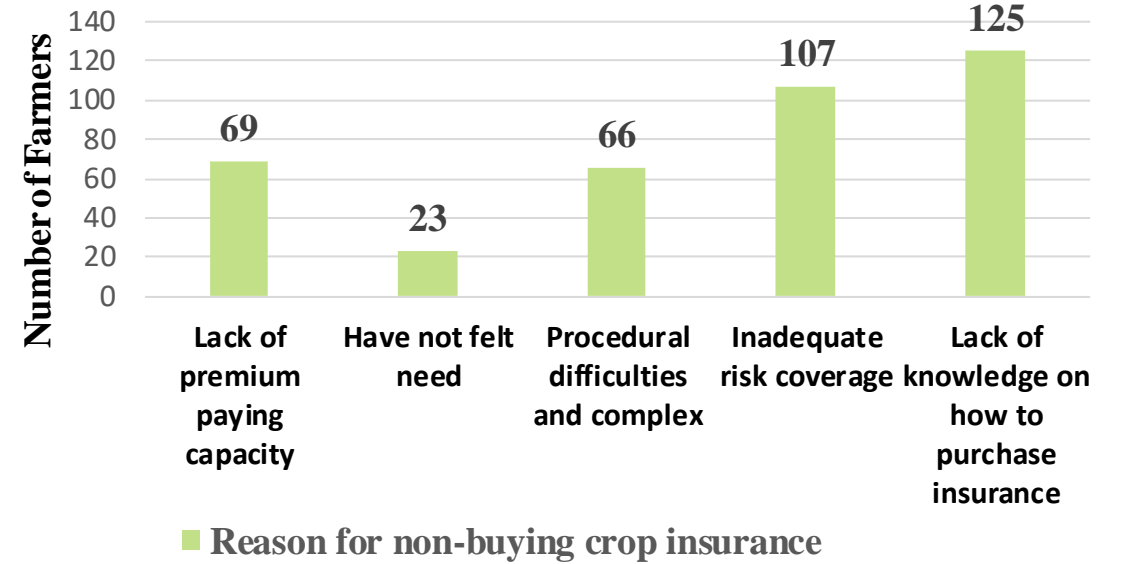
Perception of Farmers about Crop Insurance



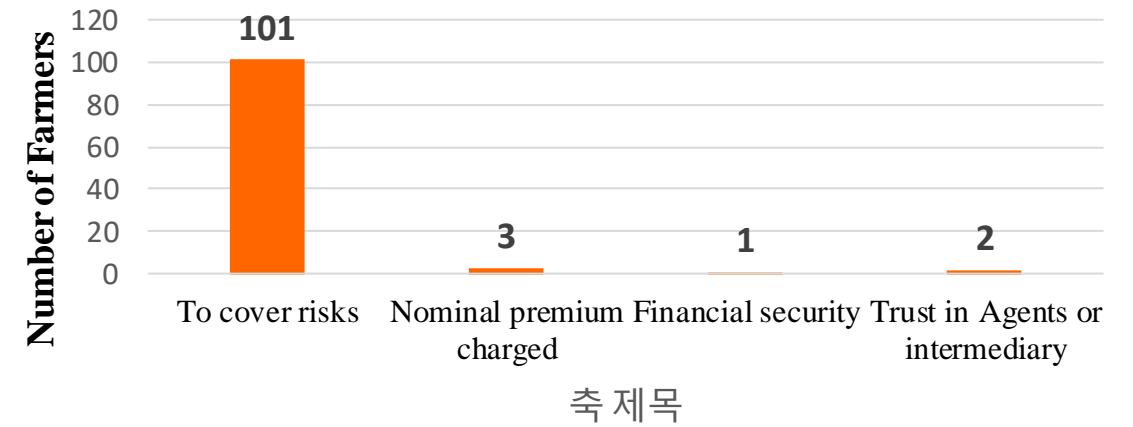
Buying Crop Insurance



Reason for non-buying crop insurance

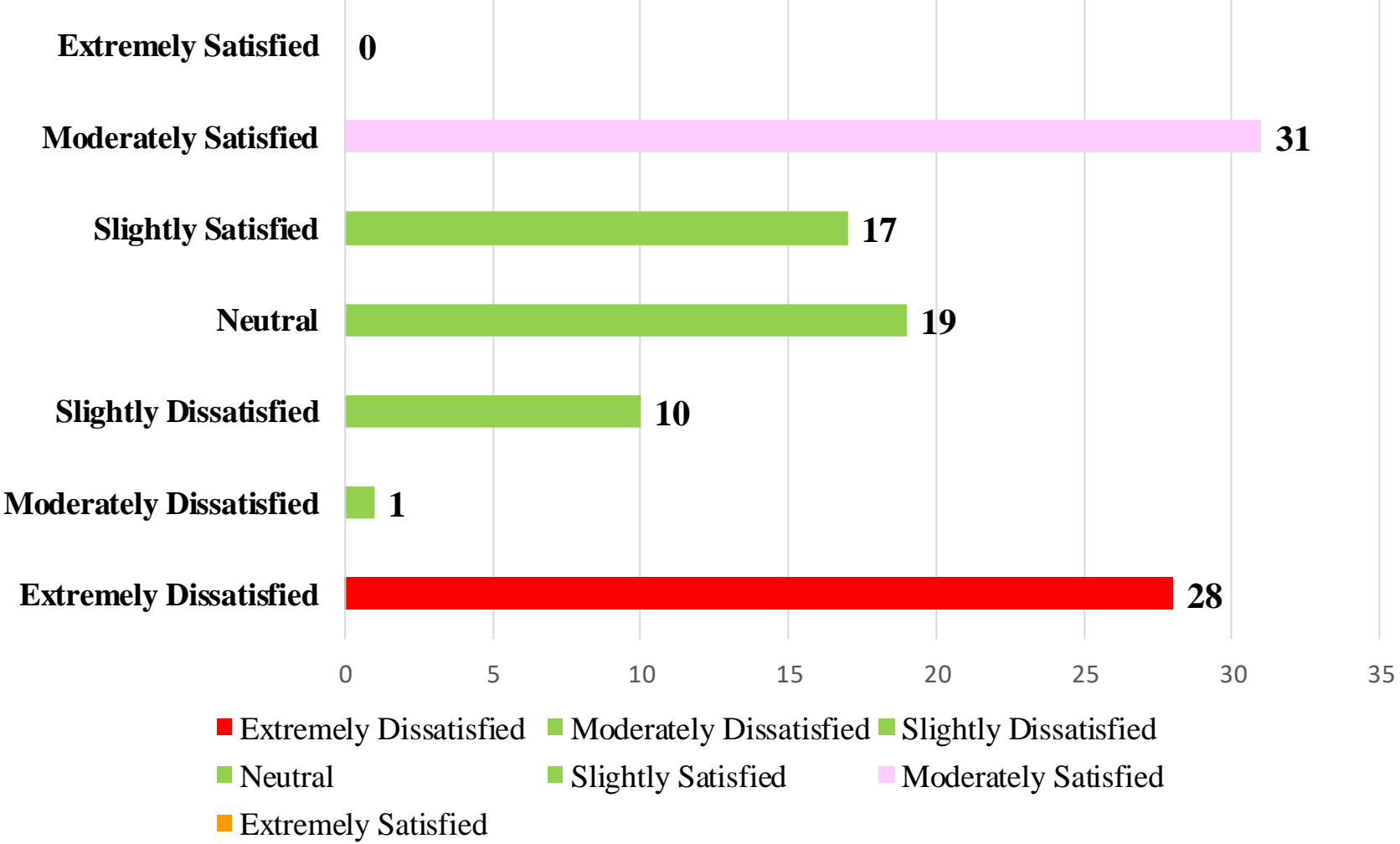


Reasons for buying crop insurance



Reasons for buying crop insurance

Satisfaction Level regarding Present Insurance Scheme



Source : Survey Data (2020)

Constraints about Present Crop Insurance

Constraints	Garrett's Mean Score	Rank
Inadequate risk coverage	69.07	I
Low indemnity rate	60.69	II
Delay in settlement of claim	50.87	IV
Complex procedures and documentation	52.69	III
Lack of government support	49.34	V
Inadequate publicity and marketing effort	38.93	VI
Not aware of crop insurance and company	29.55	VII

Source : Survey Data (2020)

Chi-Square Test

Association between Awareness of Farmers and Socioeconomic characteristics

Socioeconomic characteristics	Awareness about Crop Insurance		Chi-square	P-value
	Yes	No		
Gender				
Male	40	37	11.54***	0.001
Female	278	110		
Age				
Below 30	11	4	12.76***	0.005
30-39	38	36		
40-49	67	32		
50 and above	202	75		
Marital status				
Single	20	17	3.82**	0.05
Married	298	130		
Educational Qualification				
Non-formal /Monastery schooling	44	4	19.63***	0.000
Primary school	104	61		
Secondary school	122	47		
High school and above	48	35		
Religion				
Buddhism	304	147	6.67***	0.01
Christianity	10	4		
Faithfulness of religion				
Fair	4	8	27.96***	0.000
Somewhat serious	9	12		
Serious	225	70		
Very serious	80	57		
Family size				
Below 5	173	107	14.19***	0.000
5 and above	145	40		
Annual income				
Below 1,000,000	39	29	4.49*	0.01
1,000,000-5,000,000	245	104		
Above 5,000,000	34	14		
Farm size				
Below 5	67	33	3.14**	0.043
5-10	178	89		
Above 10	73	25		
Experience of farming				
10 years and below	24	16	4.51*	0.1
11-30 years	185	94		
Above 30 years	109	37		

Hypothesis 1: The socioeconomic characteristics (gender, age, education qualification, marital status, family size, annual income, experience of farming and farm size) are related to farmers' awareness about crop insurance.

Notes: ***, ** and * present 1%, 5% and 10% significant level

Source: Survey Data, 2020

Association between Awareness of Farmers and Risk Management

Hypothesis 2: The risk management (risk factors and methods of risk management) are related to farmers' awareness about crop insurance.

Risk Management	Awareness about Crop Insurance		Chi-square	P-value
	Yes	No		
Risk Factors				
Flooding	216	83	12.14***	0.000
Drought, excess rainfall, low rainfall, unseasonal rainfall, high winds and storms	53	21		
Pests/ diseases/ insects infestations	49	43		
Methods of risk management				
Sales of fixed assets/ livestock	14	12	52.39***	0.000
Loan (friends, relatives, bank and credit union)	45	52		
Loan with collateral	146	71		
Government subsidiary	113	12		

Notes: *, ** and * present 1%, 5% and 10% significant level**

Source: Survey Data, 2020

Association between Perception of Farmers and Socioeconomic characteristics

Socioeconomic characteristics	Perception about Crop Insurance		Chi-square	P-value
	High	Low		
Gender				
Male	59	18	0.2	0.659
Female	288	100		
Age				
Below 30	11	4	3.25	0.354
30-39	61	13		
40-49	70	29		
50 and above	205	72		
Education				
Non-formal /Monastery schooling	30	18	9.25**	0.026
Primary school	123	42		
Secondary school	123	46		
High school and above	71	12		
Marital status				
Single	26	11	0.40	0.526
Married	321	107		
Religion				
Buddhism	339	112	2.33	0.127
Christianity	8	6		
Faithfulness of religion				
Fair	10	2	6.11*	0.100
Somewhat serious	17	4		
Serious	209	86		
Very serious	111	26		
Family size				
Below 5	209	71	0.001	0.991
5 and above	138	47		
Annual income				
Below 1,000,000	53	15	4.19	0.123
1,000,000-5,000,000	253	96		
Above 5,000,000	41	7		
Farm size				
Below 5	67	33	11.02***	0.004
5-10	195	72		
Above 10	85	13		
Experience of farming				
10 years and below	33	7	9.97***	0.037
11-30 years	203	76		
Above 30 years	111	35		

Hypothesis 3 : The socioeconomic characteristics (gender, age, education qualification, marital status, family size, annual income, experience of farming and farm size) are related to farmers' perception about crop insurance.

Notes: *, ** and * present 1%, 5% and 10% significant level**

Source: Survey Data, 2020

Association between Perception of Farmers and Risk Management

Hypothesis 2: The risk management (risk factors and methods of risk management) are related to farmers' perception about crop insurance.

Risk Management	Perception about Crop Insurance		Chi-square	P-value
	High	Low		
Risk Factors				
Flooding	199	100		
Drought, excess rainfall, low rainfall, unseasonal rainfall, high winds and storms	67	7	28.93***	0.000
Pests/ diseases/ insects infestations	81	11		
Methods of risk management				
Sales of fixed assets/ livestock	24	2		
Loan (friends, relatives, bank and credit union)	83	14		
Loan with collateral	175	42	48.37***	0.000
Government subsidiary	65	60		

Notes: *, ** and * present 1%, 5% and 10% significant level**

Source: Survey Data, 2020

Conclusion

The results shows that gender, age, education qualification, religion, faithfulness of religion, family size and annual income are related to farmers' awareness about crop insurance at 1% significant level.

In addition, marital status and farm size are related to farmers' awareness about crop insurance at 5% significant level

Experience of farming is related to farmers' awareness about crop insurance at 1% significant level.

The results show that risk factors and methods of risk management are related to farmers' awareness about crop insurance at 1% significant level.

Conclusion (Cont.)

The results shows that farm size is related to farmers' perception about crop insurance at 1% significant level.

In addition, education and experience of farming are related to farmers' perception about crop insurance at 5% significant level.

Moreover , faithfulness of religion is related to farmers' perception about crop insurance at 10% significant level.

Gender, Age , Martial Status, Religions and Annual Income of Socioeconomic characteristics and Perception of Farmers are not significant

The results show that risk factors and methods of risk management are related to farmers' perception about crop insurance at 1% significant level.

Suggestions

Government Organizations and insurance company should extend and held workshops and seminars not only pilot area regions but also other regions about the importance of crop insurance.

Insurance company should respond immediately inquiries, implement ease of claim settlement process with least formalities and easily and conveniently the way of premium

Government organizations and insurance company should be completely transparent to the farmers about the loss assessment on crop insurance.

Government should subsidy more priority and implementation about premium, determining indemnity rate and regulatory framework about crop insurance.

Thank You !

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