

PERFORMANCE EVALUATION OF PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY) IN HIMACHAL PRADESH



Arvind Kalia
Nisha Devi Sadrate
Vamika Darhel
Ranveer Singh

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Agro-Economic Research Centre
Himachal Pradesh University
Shimla-171005(India)

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HIMACHAL PRADESH UNIVERSITY

SUMMER HILL, SHIMLA-171005

Professor Sikander Kumar

Vice-Chancellor

PREFACE

The present study entitled “Performance Evaluation of *Pradhan Mantri Fasal Bima Yojana* in Himachal Pradesh” is a part of all India coordinated study being conducted in seven states. It was undertaken at the instance of Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Government of India, New Delhi. The task of coordination has been entrusted to Centre for Management in Agriculture (CMA), Indian Institute of Management, Ahmedabad.

The *Pradhan Mantri Fasal Bima Yojana*, popularly known as the PMFBY was announced by the central government for lessening the burden of premium payments for crop insurance. PMFBY is a technology based crop insurance scheme launched on 13th January 2016 by Government of India to benefit farmers in a direct manner through Direct Benefit Transfer (DBT). Under the scheme, the farmers will receive monetary assistance compensating crop losses. The scheme has been designed to assist the farmers in getting the policy claims settled quickly. This scheme was launched in Himachal Pradesh from Kharif season of the year 2016, adhering to operational guidelines issued by the Department of Agriculture, Himachal Pradesh, and Ministry of Agriculture, Government of India. The scheme has been implemented in 10 districts of the state.

This study is an attempt to evaluate the performance of the scheme in Himachal Pradesh in terms of issues related to governance, implementation and uptake behaviour among the farmers and to make some policy suggestions for improving its functioning. Although, about two years have passed since its implementation in the state, and 2,60,565 farmers have been covered under the scheme. Majority of sample farmers opined PMFBY to be better than previous schemes. In the state, the scheme faced problems regarding proper record maintenance and slow and inadequate claim settlement. The colossal problem faced by farmers was destruction of crops by wild animals, insurance form which is not covered under this scheme. The menace of wild animals needs to be addressed, along with, efficient data maintenance, timely claim settlement and awareness spread to more farmers.

The Agro Economic Research Centre at this university undertook the present study to evaluate performance of PMFBY in the state of Himachal Pradesh. The staff members of the Centre engaged in the study deserves appreciation in bringing out this volume for wider circulation. The findings of the study, it is hoped, will be useful for efficient implementation of the scheme and betterment of farmers in the state.

(Sikander Kumar)

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Abbreviations

ADO:	Agriculture Development Officer
AEO:	Agriculture Extension Officer
AERC:	Agro Economic Research Centre
AIC:	Agricultural Insurance Company
AIG:	American International Group
CBPS:	Centre for Budget and Policy Studies
CCEs:	Crop Cutting Experiments
Co:	Corporation
DLMC:	District Level Monitoring Committee
DOA:	Department of Agriculture
Dy:	Deputy
ERGO:	Euthanasia Research and Guidance Organization
GCA:	Gross Cropped Area
GIC Ltd:	General Insurance Company Limited
Govt:	Government
HDFC:	Housing Development Finance Corporation
HH:	Households
HP:	Himachal Pradesh
HPU:	Himachal Pradesh University
IIMA:	Indian Institute of Management Ahmadabad
IMD:	Indian Meteorological Department
KCC:	<i>Kisan</i> Credit Card
KVK:	<i>Krishi Vigyan Kendra</i>
Ltd:	Limited

MD:	Managing Director
MGNREGA:	Mahatma Gandhi National Rural Employment Guarantee Act
MNAIS:	Modified National Agricultural Insurance Scheme
MSP:	Minimum Selling Price
NABARD:	National Bank for Agriculture and Rural Development
NAIS:	National Agricultural Insurance Scheme
NCAP:	National Centre for Agricultural Economics and Policy Research
NSA:	Net Sown Area
NSSO:	National Sample Survey Organisation
OBC:	Other Backward Classes
OIC:	Oriental Insurance Company
PDS:	Public Distribution System
PMFBY:	<i>Pradhan Mantri Fasal Bima Yojana</i>
RBI:	Reserve Bank of India
Rs:	Rupees
RWS:	Reference Weather Station
SAO:	Seasonal Agricultural Operations
SBI:	State Bank of India
SC:	Scheduled caste
SLCCCI:	State Level Co-ordination Committee on Crop Insurance
SMS:	Subject Matter Specialist
ST:	Scheduled Tribe
TATA-AIG:	TATA-American International Group
Tech:	Technology
UCO Bank:	United Commercial Bank
WBCIS:	Weather Based Crop Insurance Scheme

Executive Summary

This scheme has been launched in the state of Himachal Pradesh from Kharif, 2016 season as per the Administrative approval and Operational guidelines issued by the Department of Agriculture, Ministry of Agriculture, and Government of India. The scheme has been implemented in 10 districts of the state except Kinnaur and Lahaul & Spiti. In Himachal Pradesh, three seasons have been completed under this scheme, where two seasons of Kharif crops and only one season of Rabi crops have been covered under PMFBY during the years 2016-17 and 2017-18. But in present study, we have been covered the period of one year during 2016-17, whereas one season of Kharif crops and another one season of Rabi crops have been completed under the scheme of PMFBY.

With this background, this study was conducted by the Agro economic research centre, HPU, Shimla, to find out the performance of PMFBY along with its implementation, to analyse the socio-economic profile of insured farmers vis-à-vis non-insured farmers under Kharif and Rabi crop-2016-17, to analyse the insurance behaviour and awareness level of sampled household under PMFBY in the state and stakeholders perspectives and constraints hindering the performance of the scheme are also studied.

Major Findings

- The state has conducted 212 CCEs for Maize crop during kharif season 2016-17 under PMFBY, out of which, 148 experiments were selected and 64 experiments were rejected by the implementing agencies. For Paddy crop, total 118 CCEs were planned by implementing agencies, out of which, only 78 experiments were conducted whereas 36 were selected and 42 experiments were rejected by the implementing agencies. During Rabi season, total 262 CCEs were planned for wheat crop under PMFBY but there is no complete list maintained by agriculture department about how many experiments were conducted for this crop.
- During kharif 2016-17 seasons, there were two executing agencies IFFCO-TOKIO and Agriculture Insurance Company to covered and insured farmers for maize and paddy crops under the scheme. The coverage of total insured loanee as well as non-loanee farmers was highest in district Kangra. The total claim amount was Rs. 57.43 lakhs only provided for district Solan of the state during Kharif season 2016-17.
- During rabi 2016-17 season, there were two executing agencies, Oriental Insurance Company and Agriculture Insurance Company, which covered and insured total 1,49,687 farmers for

wheat and barley crop under this scheme. Out of which 92,303 were loanee farmers and 57,384 were non-loanee farmers. The coverage of total insured farmers was highest in district Mandi. The coverage of loanee and non-loanee farmers was highest in district Kangra and Mandi but least for district Shimla and Chamba. There was no claim provided under the scheme during this season.

- The average household size was slightly higher in case of non-loanee and non-insured farmers. The average size of workers engaged in farming was also higher among non-loanee insured farmers. The literacy rate was higher among loanee farmers. Literacy was highest in high uptake district Hamirpur.
- It was found that majority of insured and non-insured farmers were in the age group of 16-60 years. It is observed that loanee farmers have better education qualification status. Low uptake district (Shimla) has better educational status as compared to other districts.
- The loanee farmers had the highest proportion of males and females workers involved in agriculture. Middle uptake district of Solan had the highest percentage of workers engaged in agriculture.
- The modern durables owned per household were highest in case of sampled loanee households.
- Per household value of all assets was higher among non-insured farmers of the state.
- Mostly insured and non-insured farmers of the state obtained loan from commercial banks and then cooperative banks/societies. Per household loan amount and duration of loan was highest among non-loanee farmers of the state.
- Maize, paddy and tomato were the major kharif crops and wheat, vegetables and barley were the major rabi crops grown by the sampled households in the state. Whereas highest area was recorded under maize crop during kharif season and wheat crop during rabi season.
- The cropping intensity was comparatively higher among insured farmers as compared to non-insured farmers of the state.
- Per household value of total livestock was highest in case on non-insured farmers of the state.
- Service sector was the major source of income among all sampled households under study. Among three districts of the state, per household income was highest for low uptake district Shimla, here majority of workers were engaged in service sector. As compared to non-loanee and non-insured farmers, loanee farmers earned higher income from agriculture sector.

- Government awareness programmes on television, radio, news papers etc. were the major medium of information about the PMFBY.
- The yield loss (drought, dry spells, floods, pests and diseases etc.) was the biggest cause of losses for maize, paddy and wheat crops among insured sample farmers. Wild animal menace is not covered under the insurance scheme however it was considered a big reason of crop losses by sampled households of districts under study.
- The officials of agriculture department were the main authority/agency to inform about individual losses for both loanee and non-loanee insured farmers.
- The lack of awareness was the main hinderance and about half of sampled non-insured farmers reported this to be a major reason for not opting PMFBY.
- The stakeholders in this scheme are the insurance companies, the agriculture department, the banks and most important the farmers. Insurance companies are facing trouble with improper data records of farmers land and harvest and lack of coordination among themselves and with the agriculture departments. Dearth of initiative and interest in some insurance officials along with less awareness among farmers about the scheme makes it furthermore difficult for the insurance agencies to complete its targets. For the farmers, protecting their crops against wild animals is the greatest issue. Farmers are willing to learn about the scheme provided the banks and other authorities make it easy for them. Banks are relatively at ease with the whole insurance process as farmers borrow money from them and are compulsorily insured under PMFBY. Lastly, agriculture departments are the main coordinators between the banks and insurance agencies for PMFBY. State agriculture and revenue departments have responsibility of setting up farmer awareness camps in villages and also of conducting crop cutting experiments (CCEs). According to them righteous efforts are being made from their side for the implementation of the scheme but the problem is at the local level where proper data is not being maintained by the *Patwaris* and the *Kanungos*.

Problems faced by the stakeholders

- A grave problem is that no proper and sufficient records are maintained about farmers insurance or their land or the harvest. The insurance units in every district are too large to be managed efficiently. The farmers, who are insured under PMFBY, claim disbursement process is slow and the amount received by the farmers is often meager compared to their losses.

- Another problem is that CCE do not identify correct losses for all farmers as these experiments are often not conducted at all and when these are conducted, correct procedure is not followed. Non-loanee farmers are not entertained rather not much emphasis is laid on their insurance by the authorities. Even the groups and Committees set up for better implementation of the scheme are driven by political motive, in officials there is a feeling of nepotism and self interest and because of all this welfare of needy farmers is compromised.
- Another big problem is crop destruction by wild animals which is not covered under any insurance scheme. Farmers reported that there should be provision of insurance/protection of their crops from wild animals.
- Lastly, the awareness level among farmers (all, loanee, non-loanee, insured and uninsured) about the scheme is very low and the ones who know about it are not interested or willing to get crop insurance as they find no utility for it due to less compensation, all losses not being covered and complicated paperwork etc.

Policy Implications

- For spreading awareness there should be scheme promoting officers appointed by the government. Awareness camps should also be organized at the village or *panchayat* level regularly. Farmers should not face inconvenience in getting crop insurance due to lots of documentation; rather they should be insured in these camps itself. The services of *Gram Sevak* should be revived as having a person in every village, which farmers can approach easily, makes it convenient for them to cater to their farming related problems.
- Farmer's representation and participation in CCEs should be encouraged. CCEs should be undertaken in the presence of a member from an insurance agency. For this a prior notice should be given to the insurance agencies about the date and place of CCEs.
- Yield assessment should not be based on a sample plot as individuals suffer different amounts of losses. Yield assessment should be done properly. Therefore, the Implementation of the scheme should be at the local level. Insurance Units should be made on *Panchayat* level as this is the closest way of coverage to the farmers. Loan limit should be increased for the area of land so that farmers have access to more credit for their agricultural needs.
- Crops in Himachal Pradesh are under big risk of damage from wild animals which is not covered under PMFBY. It is suggested that the government should at least provide protection from these animals if not insurance.

- Government should release claim amount on time to the insurance companies. Claims should be disbursed timely. Just like premium deduction, procedure for attainment of claims on losses should be made automatic for the farmers.
- Government should announce one uniform scheme every year so that the farmers do not get confused with different names of similar benefits.
- Farmers should be supported even before the actual loss happens in the form of provision of high quality seeds at subsidized rates, cheaper fertilizers, irrigation facilities, easier credit facilities etc.

Chapter- I

BACKGROUND OF THE STUDY

1.1 Crop Insurance in India

Crop insurance is a technique through which losses suffered by few are met from funds accumulated through small contributions made by many who are exposed to similar risk. Crop insurance is a means to protecting the cultivators against financial loss on account of anticipated crop-loss arising out of practically all natural factors beyond their control such as natural fire, weather, floods, pests, diseases etc. The sum insured could be the total expenditure or a multiple of it or a proportion of expected income from crop(s) for which premium is paid. The indemnity (claims payable against the paid out of pocket expenses) is payable on the basis of shortfall in average yield from the guaranteed yield (threshold yield). The claims are paid after the loss in yield is ascertained.

The question of introduction of crop insurance in India was taken up for examination soon after independence in 1947. A special study to work out modalities of crop insurance was commissioned in 1947-48 following an assurance given by the Ministry of Food and Agriculture to introduce crop and cattle insurance in the country. The first aspect regarding the modalities of crop insurance considered was whether it should be on Individual Approach or Homogenous Area Approach. The individual approach seeks to indemnify the farmer to the full extent of the losses and the premium to be paid by him is determined with reference to his own past yield and loss experience. As such it necessitates reliable and accurate data of crop yields of individual farmers for a sufficiently long period for fixation of premium on actuarially sound basis. The homogenous area approach envisages that in the absence of reliable data of individual farmers and in view of the moral hazards involved in the individual approach, a homogenous area would form the basic unit, instead of an individual farmer. The homogeneous area would comprise of villages that are homogenous from the point of view of crop production and whose annual variability of crop productivity would be similar. The study favored homogenous area approach. Various agro-climatically homogenous areas to be treated as units and the individual farmers in those area units would pay the same rate of premium and receive the same benefits, irrespective of differential loss in individual yields. The ministry circulated the scheme for adoption by the state governments but the states did not accept.

In 1965, the Central Government introduced a Crop Insurance Bill and circulated a model scheme of crop insurance on compulsory basis to constituent state governments for their views. The bill provided for the Central Government, framing a reinsurance scheme to cover indemnity obligations of the states. However, because of very high financial obligations none of the states accepted the scheme. On receiving the responses of state governments, the subject was considered in detail by an Expert Committee headed by the then Chairman, IIMA, and Agricultural Price Commission set up in July 1970 for full examination of the economic, administrative, financial and actuarial implications of the subject. Different experiments on crop insurance on a limited, ad hoc and scattered scale were started in 1972-73. By now we have the experience of a number of products including some of weather insurance. In what follows is a brief on the past experience and availability of different products at present. Though, agricultural insurance is largely in the public domain, some private efforts especially in weather insurance have also been there for some time. Their experience is not all that discouraging. The real challenge is to scale up the distribution and ensure fast claim settlement. India, thus, has a publicly administered crop insurance scheme since 1972. All the variants of the scheme introduced from time to time had flaws. Nevertheless, India is not alone where public crop insurance has not been successful. In both developed and developing countries such insurance schemes have incurred losses without offering an effective product. Public crop insurance schemes are available to cultivators as means of reducing the cost associated with crop failure. The schemes, however, suffers from moral hazards and adverse selection and are very costly as payment eligibility is determined by crop damage assessment for each individual farmer. There is a feeling that it is not profitable proposition at all.

1.2 Overview of PMFBY in India

India is in the throes of an agrarian crisis. Indebtedness, crop failures, non-remunerative prices for crops and poor returns over cost of cultivation have led to distress in the farming sector. According to National Crime Record Bureau data, farmer suicides increased by 41.7 per cent in 2015 as compared to 2014 in the country. Farmer suicides were attributed to such causes as indebtedness, crop failure and other farming-related issues. Farmer distress is likely to worsen due to the increasing frequency and intensity of unseasonal and extreme weather events due to climate change. To help farmers cope with crop losses, the Government of India launched its flagship scheme *Pradhan Mantri Fasal Bima Yojana* (PMFBY), starting from the Kharif season

of 2016. The PMFBY replaced the National Agricultural Insurance Scheme (NAIS) and Modified National Agricultural Insurance Scheme (MNAIS). The Weather-Based Crop Insurance Scheme (WBCIS) remains in place, though its premium rates have been made the same as in PMFBY. State governments have the authority to decide whether they want PMFBY, WBCIS or both in their respective states. PMFBY is an improvement over NAIS and MNAIS and is designed to reduce the burden of crop insurance on farmers. The scheme aims to cover nearly 50 per cent of the total cropped area in the country in the next three years. Initially in 2015-16, the budget for crop insurance was fixed at Rs. 2823 crores and eventually raised to Rs. 7750 crores in 2018-19.

In the past, the insurance schemes offered by the government to the farmers were at high premium rates, limited coverage, complex methods of assessing losses and compensation payment delays. All these have built little credibility in the farmers towards the insurance scheme and resulted in farmers not accepting them for protection against their crop losses. With higher risks of crop damages in India, it has become important for the government to take initiative against the flaws in the current insurance schemes. According to PMFBY, agriculturists need to pay the premium rate of 2% for their kharif crops, 1.5% for their Rabi crops, and the rate of 5% for their commercial and horticultural annual crops. Under this scheme, while the farmers are obligated with these rates, the government will undertake the remaining share of premium payment.

In several states of the country, farmers were burdened to pay a premium rate of as high as 15 per cent, which brought up several discussions in the country to address these issues of burdening higher premium rates. Now, with this scheme of government, lowered premium rates and ease in other criteria have outreached to the farmers.

With just 23 per cent of crops that are currently insured, the government has Rs. 3,100 crore value bill on its name for its share of premium amount. Once the insurance cover reaches 30%, it is estimated that liability of the bill amount would go up to Rs. 5,700 crore. It will go up to a whopping amount of Rs. 8,800 crore once the goal of 50 percent crop insurance is attained.

In this *fasal bima yojana's* premium rate, there is no upper capping on the premium amount to be borne by the government, which was present in the previous crop insurance schemes. The Union Home Minister, Rajnath Singh expressed his opinion by stating while launching *fasal bima yojana* as 'the historic decision that makes available crop insurance

scheme at lower premium rates which was never done before in the history of independent India also, it act as a great inspiration to agriculturists for their temperament of work. Apart from that it acts as a safety shield protecting farmers and their crop from absurdities of nature’.

The *Pradhan Mantri Fasal Bima Yojana*, popularly known as the PMFBY, has been announced by the central Government for lessening the burden of premium payment in agricultural insurance. PMFBY is a technology based crop insurance scheme launched on 13th January 2016 by Government of India to benefit farmers in a direct manner through Direct Benefit Transfer (DBT). Under the scheme, the farmers will also acquire monetary assistance for recovering from crop losses. The scheme will also assist the farmers in getting the policy claims settled quickly and without much bureaucratic red tapism.

1.3 Need for PMFBY

The scheme as a risk aversion solution is evermore important for the following reasons:

- i) Agriculture is facing increased natural risks.
- ii) The frequency of natural disasters is on the rise making insurance mandatory.
- iii) Increasing occurrence of farmer suicides due to crop failure.
- iv) Prevailing drought conditions across the country.
- v) Failing monsoons.
- vi) Uncertainty in agriculture production.
- vii) The new PMFBY scheme is well catered to address and cover the crop loss in the current situation.

1.4 Eligibility Criteria for PMFBY

The eligibility criteria for PMFBY are the following:

- 1. No Segregation or Classification** – Though there are some requirements that the farmers will have to fulfill, the rules are simple. There are no classifications or segregations. The government wants to reach out to as many beneficiaries as possible.
- 2. Does not Depend on the Ownership of Land** – The policy will cater to farmers who are the real owners of the land on which the farming is done. The scheme will also cater to the needs of the farmers who farm on rented land.
- 3. Rules for the Non-loanee Farmers** – According to the government, the farmers who have not applied for any agricultural credit are known as non-loanee farmers. For them, to be a part of the scheme, the production of legal land documents and other papers is a must.

1.5 Features of PMFBY

Features of the PMFBY are as follows:

1. **Replacing other Agro Schemes** – With the implementation of the PMFBY, all the agricultural loan and insurance schemes will cease to operate. The government has included all the existing agro schemes under this one.
2. **Including all Categories of Farmers** – With the implementation of the scheme, the government wants to bring all kinds of categories of agricultural workers under the umbrella of protection. There are no categorizations or segregations for being a part of the scheme.
3. **Low Premium Rate** – It is not possible for the poor farmers to ensure the safety of their investment by paying the high premiums of the other agro insurance policies. With the PMFBY, the farmers will be able to acquire the insurance policy by paying very low rates of premium. **The premium rate is 2 per cent for Kharif crop, 1.5 per cent for the Rabi crop and 5 per cent for commercial crops.**
4. **Mode of Payment** – The insurance claim amount will be credited directly in the bank account of the farmers.
5. **Insurance Coverage** – Though the farmers are required to pay only a part of the premium, they will not receive partial coverage. In case of any natural calamity, the farmers will be given full monetary assistance that has been highlighted in the insurance policy papers.
6. **Tax Exemption** – The farmers will not be charged under the tax system for the amount they have insured. Like most other government schemes, the money invested in the policy has been declared tax free.
7. **Insurance Premium Calculator** – For the assistance of the farmers, the website and the app has a special feature. With the insurance premium calculator feature, farmers will be able to know the sum that they need to pay as the premium.

1.6 Documents Required for PMFBY

Following are the necessary documents required to register under *Pradhan Mantri Fasal Bima Yojana*;

1. **Aadhar card** – Under the official decree of the central government of India, the *Aadhar* Card has been made mandatory for everything. Keeping in line with the decision, all the

farmers, interested in being a part of the project are required to provide photocopy of their *Aadhar Card*.

2. **Details of the Farm Land and Prior Loans** – The farmers need to provide documents, which are associated with the land. The ownership of the land does not matter. Apart from this, the farmers are also required to provide agricultural credit documents, if they have applied for any.
3. **Bank Account Details** – As the insurance money will be directly transferred in the bank account, the farmer will have to provide the bank and the account details along with the application form.

1.7 Coverage of Farmers and Crops in PMFBY

The Government has brought all kinds of farmers under the insurance scheme. For the time being, this segment has two main components – the compulsory component and the voluntary component. Apart from these two components, the government has kept reservations for farmers who fall in the SC/ST/OBC category as well. The compulsory component includes all those agricultural workers who have already applied for another loan that has been used for raising a seasonal crop. The seasonal crop cultivation loan is also known as the SAO credit. The voluntary component includes the agricultural workers who have not applied for any kind of agricultural loan that has been used for the raising a seasonal crop. They are also eligible to be a part of the PMFBY. The government has notified a list of crops, which can be insured under the PMFBY scheme. The list contains food crops, as well as, commercial crops. The list contains wheat, barley, maize, paddy, pulses, millets, castor, groundnut, linseed, cashew nut, guava, banana, and mangoes.

1.8 Coverage of Risk in PMFBY

Following risks are covered under the scheme:

1. **Planting or Prevented Sowing Risks** – If the farmers are not able to sow the seeds on a patch of insured land, due to delayed or inadequate rainfall or any other natural condition, then they will get monetary assistance for covering the damages.
2. **Standing Harvest Risks** – The standing period of the crop is considered to be the time that starts right after sowing the seeds in the ground to the day of harvesting the crops. The farmers will be compensated for any damage to the standing crop that has been caused due to natural causes viz; Drought, Dry Spell, Flood, Inundation, Pests and diseases, Land Slides,

Natural Fire and Lightening, Storm, Hailstorm, Cyclone, Typhoon, Tempest, Hurricane and Tornado etc.

3. **Post-Yield Risks** – The farmers needs time to prepare the final product after the crop has been harvested. If any damage occurs to the harvest, during the drying or the spreading period against specific perils of cyclone and cyclonic rains and unseasonal rains, then the farmer is entitled to get the coverage amount. For claiming the insurance for this reason, the farmers must prove that the damage was done within the period of two weeks from date of harvesting.
4. **Localized Mishaps** – Natural calamities might not always be widespread. Sometimes only a certain area might get affected while the others remain safe. If any situation like this occurs, then the insured farmer will be provided money for compensating the losses.

1.9 Risks Not Covered in PMFBY

The insurance policy will not cover the damage of the crops, if the reason of the damage is artificial. For instance, the damages brought about due to the break out of wars or any nuclear disaster, farmers will not be compensated under the scheme. If the crop has been stolen or has been set on fire by people, the farmer will not get any money for repairing the damages. The scheme will also not cover any damage to the crops by the action of wild or domesticated animals. In short, the PMFBY will only provide monetary assistance, in the form of insurance coverage, if the damage has been done by natural forces.

1.10 Loan Facility in PMFBY

The *Pradhan Mantri Fasal Bima Yojana* happens to be an agro-insurance policy. The loan facility has been designed for the betterment of the agriculture workers by providing them insurance against any natural damage, caused to the crops. The loan facility was designed for making the agricultural venture lucrative for the farmers. If the farmer already has a loan under agricultural sector, then they will be automatically registered under the PMFBY.

1.11 Claim for Insurance and Termination Policy in PMFBY

After applying for claim, the money will be transferred into the bank account of the farmer or it will be handed over to the farmer through the insurance company. While setting the claims through the authorized banks, the farmer's account will be automatically credited with the insurance coverage amount, once the government sends the money. Once the bank has credited the accounts of all the claimants, the list will be compiled and published by the banks. In case the

claim is being settled by intermediaries, the money will be transferred directly from the insurance company to the account.

1.12 Government Budget for PMFBY 2017-2018

From Rs. 5500 crores during 2016-17, the budget increased by a whopping 40% during 2017-18. The government has the hope for bringing around 50 per cent of the cultivated land under the scheme by 2018-19. During the announcement of the Annual Union Budget for 2017-18, the Central Government proposed to allocate Rs. 9000 crores for the successful implementation of the scheme.

1.13 Objectives of the Scheme at National Level

1. Providing financial support to farmers suffering crop loss/damage arising out of unforeseen events.
2. Stabilizing the income of farmers to ensure their continuance in farming.
3. Encouraging farmers to adopt innovative and modern agricultural practices.
4. Ensuring flow of credit to the agriculture sector; this will contribute to food security, crop diversification and enhancing growth and competitiveness of agriculture sector besides protecting farmers from production risks.

1.14 Overview of PMFBY in Himachal Pradesh

This scheme has been launched in the state from Kharif, 2016 season as per the Administrative approval and operational guidelines issued by the Department of Agriculture, Ministry of Agriculture, and Government of India. The scheme has been implemented in 10 districts of the state except Kinnaur and Lahaul & Spiti. In Himachal Pradesh, three crop seasons have been completed under this scheme, where two seasons of Kharif crops and only one season of Rabi crops were covered under PMFBY during the years 2016-17 and 2017-18. But in the present study, period of one year 2016-17 has been covered, whereas one season of Kharif crops and another one season of Rabi crops have been completed under the scheme of PMFBY.

1.14.1 Cluster Formation under PMFBY in Himachal Pradesh

During kharif season of 2016, Maize and Paddy were covered under the scheme. In this season 10 districts were clustered into two groups as follows:

Cluster-1

Sr. No.	Districts	Implementing Agency	Crops
1	Chamba	AIC	Maize/Paddy
2	Hamirpur	AIC	Maize/Paddy
3	Kangra	AIC	Maize/Paddy
4	Una	AIC	Maize/Paddy

Cluster-2

Sr. No.	Districts	Implementing Agency	Crop
1	Bilaspur	IFFCO-TOKIO	Maize/Paddy
2	Kullu	IFFCO-TOKIO	Maize/Paddy
3	Mandi	IFFCO-TOKIO	Maize/Paddy
4	Shimla	IFFCO-TOKIO	Maize/Paddy
5	Sirmour	IFFCO-TOKIO	Maize/Paddy
6	Solan	IFFCO-TOKIO	Maize/Paddy

During rabi season of 2016, Wheat and Barley were covered under the scheme. In this season 11 districts were clustered into two groups as follows:

Cluster-1

Sr. No.	Districts	Implementing Agency	Crop
1	Chamba	AIC	Wheat/Barley
2	Hamirpur	AIC	Wheat
3	Kangra	AIC	Wheat/Barley
4	Una	AIC	Wheat

Cluster-2

Sr. No.	Districts	Implementing Agency	Crop
1	Bilaspur	OIC	Wheat
2	Kinnaur	OIC	Wheat/Barley
3	Kullu	OIC	Wheat/Barley
4	Mandi	OIC	Wheat/Barley
5	Shimla	OIC	Wheat/Barley
6	Sirmour	OIC	Wheat/Barley
7	Solan	OIC	Wheat/Barley

During kharif season of 2017, Maize and Paddy were covered under the scheme. In this season 10 districts were clustered into two groups as follows:

Cluster-1

Sr. No.	Districts	Implementing Agency	Crops
1	Chamba	AIC	Maize/Paddy
2	Hamirpur	AIC	Maize/Paddy
3	Kangra	AIC	Maize/Paddy
4	Una	AIC	Maize/Paddy

Cluster-2

Sr. No.	Districts	Implementing Agency	Crop
1	Bilaspur	AIC	Maize/Paddy
2	Kullu	AIC	Maize/Paddy
3	Mandi	AIC	Maize/Paddy
4	Shimla	AIC	Maize/Paddy
5	Sirmour	AIC	Maize/Paddy
6	Solan	AIC	Maize/Paddy

1.14.2 Details of Monitoring Committees of PMFBY in the State

Following are the monitoring committees under the scheme in Himachal Pradesh;

a) State Level Co-ordination Committee on Crop Insurance (SLCCCI)

The Governor of Himachal Pradesh selects the members of SLCCCI as per the guidelines under PMFBY. The Chairman and Members of the Committee in each district are as under;

Chairman- The Additional Chief Secretary (Agriculture) to the government of Himachal Pradesh.

Member Secretary- The Agriculture Statistical Officer, H.P.

Members: The Additional Chief Secretary (Finance, Revenue and Planning), H.P., the Secretary (Co-operation), H. P., The Deputy Commissioner (Credit) to the Govt. of India, Ministry of Agriculture, The Registrar Cooperative Societies, H.P., The Director Land Records, H. P., The Director of Agriculture, H. P., The Director of Horticulture, H. P., The Joint Member Secretary, Science &Tech., H. P., The Deputy General Manager, RBI, Shimla, The General Manager, NABARD, Shimla, The Zonal Manager, UCO Bank, Shimla, The M. D. Himachal Pradesh Co-operative Bank, the Mall, The Director IMD, Shimla, The Director of Rural Development and Panchayati Raj, Shimla, The Deputy Director General, Govt. of India, Ministry of Statistics, NSSO, Shimla, The Regional Manager, AIC of India Ltd. Regional Office Chandigarh, The Area Manager, HDFC-ERGO GIC Ltd., Chandigarh, The Agency Development Manager, IFFCO-TOKIO, GIC Ltd., Shimla, The Dy. Manager Reliance-GIC Ltd., Chandigarh, The Dy. Manager Bajaj-Allianz, GIC Ltd., Panchkula, The Manager, Chola Mandlam, MS GIC Ltd., Chandigarh, The Manager, TATA-AIG, GIC Ltd., New Delhi, The Manager, Future Generally, India Insurance Co. Ltd., Chandigarh, The Manager, SBI, GIC, Ltd., Chandigarh, and The Manager, Universal Sompo, GIC Ltd., Chandigarh are the members of SLCCCI.

Role of SLCCCI

Prior to the commencement of the crop year, meeting of SLCCCI should be convened for finalizing various terms and conditions under the scheme. The Committee shall be responsible to ensure inter-departmental co-ordination of the implementing agencies for selection of the defined area and to discuss and finalize the operational details of PMFBY in the state. This shall be responsible for notifying the units area to be covered under the scheme, besides deciding seasonality discipline for submission of declaration in respect of crops to be covered under insurance scheme. To ensure conduct of proper and adequate number of crop cutting experiments on various crops covered under the scheme and to ensure wide publicity of the scheme. To ensure submission of the yield data for each crop and each defined units to implementing

agencies. To deliberate and decide any matter relating to PMFBY, which is helpful in the implementation of the scheme and finally, to take decision regarding coverage of additional crops under the scheme in the near future and to develop data of such crop as per requirements of the scheme.

b) District Level Monitoring Committee (DLMC)

On the recommendation of SLCCCI, as per operational guidelines of PMFBY, the Governor of Himachal Pradesh selects DLMC in the districts of the state (except Lahaul & Spiti). The Chairman and Members of the Committee in each district are as under;

Chairman- Deputy Commissioner

Member Secretary- Deputy Director of Agriculture

Members- District Revenue Officer, Representative of the Implementing Agency, Lead Bank Officer, District Development Manager, NABARD, District Head, District Central Co-operative Bank.

Role of DLMC

The Committee will monitor implementation of the scheme by providing fortnightly crop condition reports and periodical reports on seasonal weather conditions, loan disbursed, extent of area cultivated etc. The DLMC shall also monitor conduct of Crop Cutting Experiment in the District.

c) Joint Committee

The Joint Committee has already been notified by the Government of Himachal Pradesh vide letter No. Agr-B-F(1)-3/2016 dated 26th May, 2016. There will be a Joint Committee for assessment of crop damage in each district. The District Committee will comprise District Agriculture Officer of Agriculture Department (as a Chairman), *Sadar Kanungo* of Revenue Department (as a member) and representative of Implementing Agency (as a member) of concerned District.

Role of Joint Committee

The Committee has to issue the loss intimation order within seven days from the adverse seasonal event. The Deputy Director of Agriculture of the concerned district may issue the loss intimation order to the Joint Committee within a week period from the occurrence of the adverse seasonal event. Further, as per operational guidelines of PMFBY, loss assessment report at

affected insurance unit level has to be completed by the Joint Committee within 15 days from the occurrence of adverse seasonal event.

The weather data as per requirement may be taken from the Reference Weather Station (RWS). The RWS are to be installed in Kumarsain & Baragaon in R.O. Narkanda Block and in Shoghi & Ghanahatti in R.O. Mashobra Block of Shimla District and also in Sub-Tehsil Ramshehar of Solan district during Rabi, 2017-18 season. These RWS are to be installed by the IFFCO-TOKIO which is the implementing agency for these areas in the state during Rabi, 2017-18 season.

1.14.3 Assessment of Loss/Shortfall in Yield under PMFBY in the State

a) Crop Cutting Experiments (CCEs)

State shall maintain single series of crop cutting experiments, i.e. same set of CCEs and yield estimates are used both for crop production estimates and crop insurance. In instance, where required number of crop cutting experiments could not be conducted to non-availability of adequate cropped area, the yield estimates for such insurance unit area can be generated by using methods as (i) Clubbing with neighboring/contagious units or (ii) adopting yield estimates of next higher units or (iii) adopting the yield of neighboring insurance units with maximum correlation.

b) Assessment of Claims

If actual yield per hectare of insured crop for insurance unit (calculated on the basis of requisite number of CCEs) in insured season falls short of specified threshold yield, all insured farmers growing that crop in the defined area are deemed to have suffered short fall in yield of similar magnitude. PMFBY seeks to provide coverage against such contingency. Claims shall be calculated as per following formula-

$$\frac{\text{Threshold Yield} - \text{Actual Yield}}{\text{Threshold Yield}} \times \text{Sum Insured}$$

1.14.4 Details of CCEs under PMFBY in the State

The details of Crop Cutting Experiments conducted during Kharif and Rabi seasons 2016-17, indicates that the state has conducted total 212 CCEs for Maize crop during kharif season 2016-17 under PMFBY. Out of which, 148 experiments were selected and 64 experiments were rejected by the implementing agencies. For Paddy crop, total 118 CCEs were planned by implementing agencies, out of which, only 78 experiments were conducted whereas 36 were

selected and 42 experiments were rejected by the implementing agencies. During rabi season, total 262 CCEs were planned for wheat crop under PMFBY but there is no complete list maintained by Agriculture Department that how much experiments were conducted for this crop.

1.14.5 Progress under PMFBY in Himachal Pradesh

The progress of PMFBY during Kharif and Rabi seasons (2016-17) in the state include different types of indicators/components like; district name, executing agency name, number of insured farmers (loanee and non-loanee), insured area (in hectares), sum insured (in rupees), premium, claims, number of beneficiary farmers and distributed indemnity under PMFBY in the state.

The data regarding progress under PMFBY during kharif 2016-17 season has been presented in Table-1.1. Two executing agencies, namely, IFFCO-TOKIO and Agriculture Insurance Company (AIC), covered and insured farmers for Maize and Paddy under the scheme during this season. Out of total numbers of 1,10,878 farmers insured under this scheme, 1,08,947 were loanee farmers and 1,931 were non-loanee farmers. The coverage of total insured farmers was highest in Kangra district, followed by Hamirpur, Bilaspur, Una and other districts respectively. The Kullu district shows lowest coverage of farmers under the scheme during kharif season in the state. In case of loanee insured farmers, Kangra district recorded highest coverage and Shimla district got least coverage of farmers. Kullu district has not covered any farmer under this scheme. In case of non-loanee farmers, Kangra district recorded highest coverage and Chamba district recorded least coverage of insured farmers under this scheme. Regarding insured area, 35417.7 hectares area was insured during kharif season under PMFBY in the state. The highest area was insured in district Kangra, followed by Hamirpur, Bilaspur, Una, Solan, Mandi and other districts, respectively. Kullu district recorded least coverage of insured area under PMFBY during this season. In Himachal Pradesh, total target of sum insured was fixed Rs. 25163.38 lakh under this scheme. It was highest in Kangra district and least for Kullu district during kharif season 2016-17. Total premium was Rs. 295.32 lakh collected for kharif season in the state, which was highest in Bilaspur district and lowest in Kullu district. In the state, premium share of each government was Rs. 18.55 lakh. Entire amount of premium was recorded in Bilaspur district. The premium share of farmers was Rs. 258.21 lakh, which was accounted highest for Kangra district and lowest for Kullu district during this season. The total claim amount was Rs. 57.43 lakh only provided for Solan district under PMFBY during kharif season 2016-17 in the state; however total 4,938 farmers were benefitted in Solan, Kangra and

Fig-1.1: Progress under PMFBY during Rabi and Kharif 2016-17 Seasons

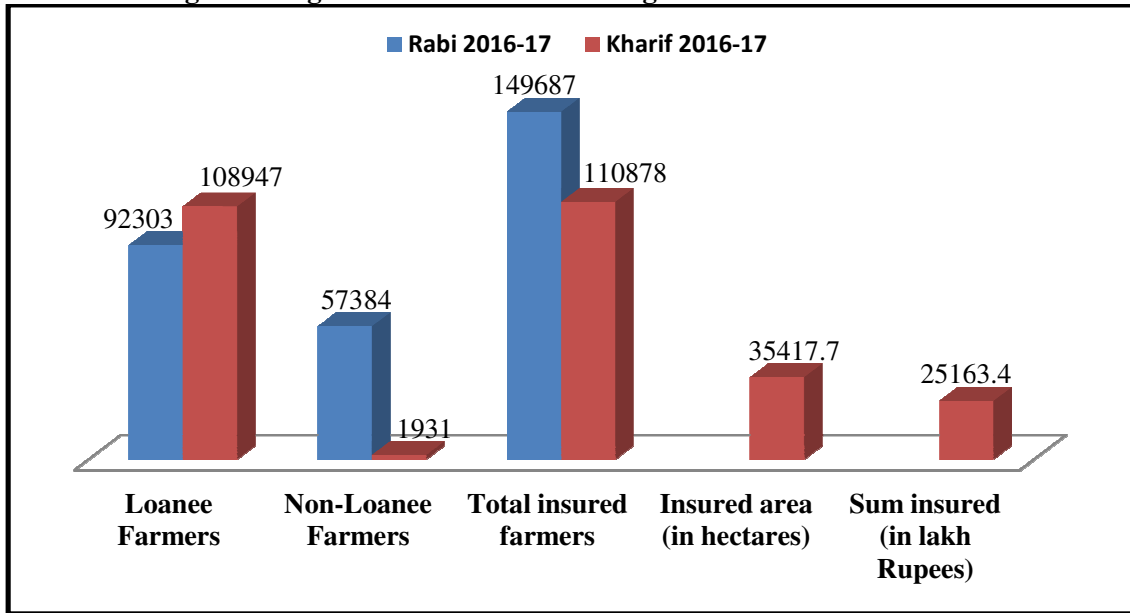
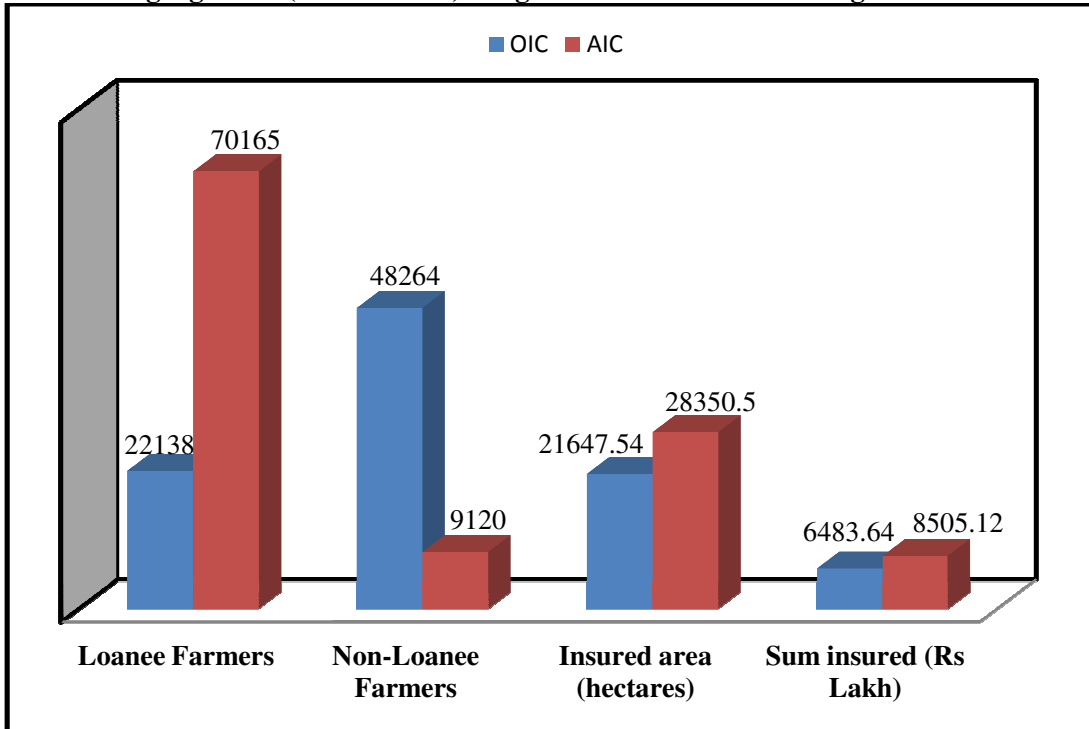
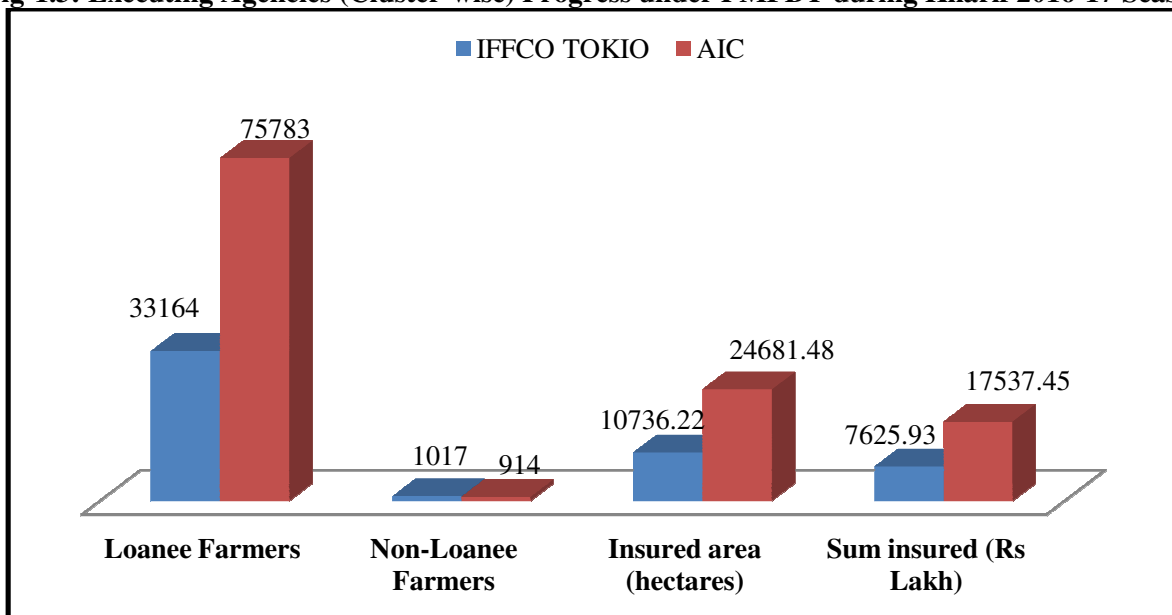


Fig-1.2: Executing Agencies (Cluster-wise) Progress under PMFBY during Rabi 2016-17 Season



Chamba districts under this scheme, out of which highest coverage of beneficiary recorded in Solan district. During this season, claim amount was only given to the benefitted farmers of Solan district and not to other benefitted farmers of two remained districts. This discrepancy was due to the lack of data record maintained by executing agencies involved under PMFBY.

Fig-1.3: Executing Agencies (Cluster-wise) Progress under PMFBY during Kharif 2016-17 Season



During rabi 2016-17 season, there were only two executing agencies, namely Oriental Insurance Company (OIC) and Agriculture Insurance Company (AIC) which covered and insured farmers for Wheat and Barley under the scheme. In the state, total numbers of 1,49,687 farmers were insured under this scheme out of which 92,303 were loanee farmers and 57,384 were non-loanee farmers (Table-1.2). The coverage of total insured farmers was highest in Mandi district, followed by Kangra, Hamirpur, Bilaspur, Una and other districts respectively. District Kinnaur shows lowest coverage of farmers under the scheme during Rabi season in the state. In case of loanee insured farmers, Kangra district recorded highest coverage and Shimla district got lowest coverage of farmers under this scheme whereas districts Kinnaur and Kullu have no loanee farmers under the scheme. In case of non-loanee farmers, Mandi district recorded highest coverage of farmers and Chamba recorded lowest coverage under this scheme. Regarding insured area, 49998 hectares area was insured during Rabi season under PMFBY in the state. The highest area was insured in Kangra district, followed by district Mandi, Hamirpur, Bilaspur, Una and other districts respectively. District Kinnaur recorded least coverage of insured area under PMFBY during Rabi season. In Himachal Pradesh, total target of sum insured (maximum amount insurance company will pay in the event of loss) was fixed Rs. 14988.76 lakhs under this scheme Kangra district was on top amongst all districts during Rabi season 2016-17. The amount of premium was Rs. 1143.95 lakhs collected for Rabi season in the state, which was highest in Hamirpur district and lowest in Kinnaur district. The premium collected

was categorized between 50:50 sharing basis of Centre and State Governments as well as the share of farmers. In the state, premium share of each government was Rs. 512.09 lakh, which was highest in Hamirpur district and least in Kullu district. The amount of premium of farmers was Rs. 224.53 lakh which was highest in Kangra district and lowest in Kullu district during Rabi 2016-17 season. Regarding claim registered, no claim was provided under PMFBY during Rabi season 2016-17 in the state, however, on records, 4,402 numbers of farmers were benefitted under this scheme. This discrepancy was due to the weaknesses of Insurance Companies and Executing Agencies in not maintaining proper records and data regarding claim/compensation and other aspects of PMFBY.

The analysis regarding cluster-wise performance of executing agencies under PMFBY during kharif and rabi season 2016-17 have been presented in Tables-1.3, 1.4, 1.5 and 1.6 respectively.

During kharif 2016-17 season cluster-1 was given to IFFCO-TOKIO executing agency, covered six districts under PMFBY during this season. Out of total number of 34,181 insured farmers, 33,164 were loanee and 1,017 were non-loanee farmers. Largest numbers of total insured farmers of the state were in Bilaspur district and least in Kullu district (Table-1.3). Similarly, in case of loanee and non-loanee farmers, largest number of insured farmers recorded in Bilaspur district and least in Kullu district. Under this cluster, total insured area covered was 10736.22 hectares. Regarding sum insured target, it was fixed at Rs. 7625.93 lakhs for the state. Total premium was Rs. 139.36 lakhs, collected for kharif season, which was highest in Bilaspur district, and lowest in Kullu district. The premium share of each government was Rs. 18.55 lakhs. The premium share of farmers was accounted Rs. 102.55 lakhs, which was higher in Bilaspur district and lowest in Kullu district. The total claim was Rs. 57.43 lakhs in cluster-1 of PMFBY during kharif season 2016-17. Total numbers of 1,832 farmers were benefitted in the state under this scheme, largest claims and beneficiaries recorded in Solan district. The indemnity was Rs. 57.43 lakhs distributed only for Solan district in the state. Therefore, executing agency (IFFCO-TOKIO) has maintained proper record of data analyses regarding PMFBY during kharif season (Cluster-1).

Table-1.1: District-wise Progress under PMFBY during Kharif 2016-17 Season

Sr. No.	District	Name of the Executing Agency	No. of Farmers insured			Insured area (in hectares)	Sum insured (in lakh Rupees)	Premium (in Lakh Rupees)				Claims registered	No. of Beneficiary farmers	Distributed Indemnity (in lakhs)
			Loanee Farmers	Non-Loanee Farmers	Total			Farmers share	Grant by Centre	Grant by State	Total Premium			
1	Bilaspur	IFFCO-TOKIO	11075	279	11354	3620.83	2542.53	50.85	18.55	18.55	87.96	0	0	0
2	Chamba	AIC	5194	5	5199	1200.77	842.43	12.49	0	0	12.49	-	1606	31.91
3	Hamirpur	AIC	17689	303	17992	5736.92	4019.39	42.07	0	0	42.07	-	-	-
4	Kangra	AIC	40727	402	41129	14315.95	10261.58	82.09	0	0	82.09	-	1500	103.48
5	Kullu	IFFCO-TOKIO	0	7	7	2.94	2.12	0.02	0	0	0.02	0	0	0
6	Mandi	IFFCO-TOKIO	7337	273	7610	2101.13	1508.88	24.37	0	0	24.37	0	0	0
7	Shimla	IFFCO-TOKIO	412	178	590	123.31	86.32	0.86	0	0	0.86	0	0	0
8	Sirmour	IFFCO-TOKIO	4709	28	4737	1789.59	1308.11	6.54	0	0	6.54	0	0	0
9	Solan	IFFCO-TOKIO	9631	252	9883	3098.42	2177.97	19.61	0	0	19.61	57.43	1832	57.43
10	Una	AIC	12173	204	12377	3427.84	2414.05	19.31	0	0	19.31	-	-	-
Total in HP			108947	1931	110878	35417.7	25163.38	258.21	18.55	18.55	295.32	57.43	4938	192.82

Source: Regional Office, Agriculture Insurance Company, Chandigarh and Corporate Office of IFFCO-TOKIO, General Insurance Company, Delhi.

Table-1.2: District-wise Progress under PMFBY during Rabi 2016-17 Season

Sr. No.	District	Name of the Executing Agency	No. of Farmers insured			Insured area (in hectares)	Sum insured (in lakh Rupees)	Premium (in Lakh Rupees)				Claims registered	No. of Beneficiary farmers	Distributed Indemnity (in lakhs)
			Loanee Farmers	Non-Loanee Farmers	Total			Farmers share	Grant by Centre	Grant by State	Total Premium			
1	Bilaspur	OIC	9101	11717	20818	6548.22	1964.47	29.47	137.51	137.51	304.49	-	4313	151.78
2	Chamba	AIC	3549	24	3573	958.30	287.46	4.31	4.31	4.31	12.93	-	-	-
3	Hamirpur	AIC	17859	7035	24894	8472.82	2541.84	38.13	137.26	137.26	312.65	-	-	-
4	Kangra	AIC	36017	1351	37368	12932.67	3879.80	58.20	29.10	29.10	11.64	-	-	-
5	Kinnaur	OIC	0	121	121	37.12	9.84	0.11	0	0	0.11	-	-	-
6	Kullu	OIC	0	185	185	80.16	24.05	0.04	0.13	0.13	0.30	-	-	-
7	Mandi	OIC	9099	34871	43970	12032.80	3603.45	54.05	120.94	120.94	295.93	-	89	1.00
8	Shimla	OIC	258	176	434	96.42	28.93	0.44	0.58	0.58	1.60	-	-	-
9	Sirmour	OIC	2250	697	2947	1756.68	527.06	7.91	24.90	24.90	57.71	-	-	-
10	Solan	OIC	1430	497	1927	1096.13	325.84	4.93	6.17	6.17	17.27	-	-	-
11	Una	AIC	12740	710	13450	5986.72	1796.02	26.94	51.19	51.19	129.32	-	-	-
Total in HP			92303	57384	149687	49998.04	14988.76	224.53	512.09	512.09	1143.95	-	4402	152.78

Source: Regional office of Agriculture Insurance Company, Chandigarh, and Divisional Office of Oriental Insurance Company, Shimla.

Table-1.3: District-wise Performance of IFFCO-TOKIO under PMFBY during Kharif 2016-17 Season (Cluster-1)

Sr. No.	District	Name of the Executing Agency	No. of Farmers insured			Insured area (in hectares)	Sum insured (in lakh Rupees)	Premium (in Lakh Rupees)				Claims registered	No. of Beneficiary farmers	Distributed Indemnity (in lakhs)
			Loanee Farmers	Non-Loanee Farmers	Total			Farmers share	Grant by Centre	Grant by State	Total Premium			
1	Bilaspur	IFFCO-TOKIO	11075	279	11354	3620.83	2542.53	50.85	18.55	18.55	87.96	0	0	0
2	Kullu	IFFCO-TOKIO	0	7	7	2.94	2.12	0.02	0	0	0.02	0	0	0
3	Mandi	IFFCO-TOKIO	7337	273	7610	2101.13	1508.88	24.37	0	0	24.37	0	0	0
4	Shimla	IFFCO-TOKIO	412	178	590	123.31	86.32	0.86	0	0	0.86	0	0	0
5	Sirmour	IFFCO-TOKIO	4709	28	4737	1789.59	1308.11	6.54	0	0	6.54	0	0	0
6	Solan	IFFCO-TOKIO	9631	252	9883	3098.42	2177.97	19.61	0	0	19.61	57.43	1832	57.43
Total			33164	1017	34181	10736.22	7625.93	102.25	18.55	18.55	139.36	57.43	1832	57.43

Source: Corporate Office of IFFCO-TOKIO, General Insurance Company Ltd. Delhi.

Table-1.4: District-wise Performance of AIC under PMFBY during Kharif 2016-17 Season (Cluster-2)

Sr. No.	District	Name of the Executing Agency	No. of Farmers insured			Insured area (in hectares)	Sum insured (in lakh Rupees)	Premium (in Lakh Rupees)				Claims registered	No. of Beneficiary farmers	Distributed Indemnity (in lakhs)
			Loanee Farmers	Non-Loanee Farmers	Total			Farmers share	Grant by Centre	Grant by State	Total Premium			
1	Chamba	AIC	5194	5	5199	1200.77	842.433	12.49	0	0	12.49	-	1606	31.91
2	Hamirpur	AIC	17689	303	17992	5736.92	4019.39	42.07	0	0	42.07	-	-	-
3	Kangra	AIC	40727	402	41129	14315.95	10261.58	82.09	0	0	82.09	-	1500	103.48
4	Una	AIC	12173	204	12377	3427.84	2414.05	19.31	0	0	19.31	-	-	-
Total			75783	914	76697	24681.48	17537.45	155.96	0	0	155.96	0	3106	135.39

Source: Regional office of Agriculture Insurance Company, Chandigarh

Table-1.5: District-wise Performance of OIC under PMFBY during Rabi 2016-17 Season (Cluster-1)

Sr. No.	District	Name of the Executing Agency	No. of Farmers insured			Insured area (in hectares)	Sum insured (in lakh Rupees)	Premium (in Lakh Rupees)				Claims registered	No. of Beneficiary farmers	Distributed Indemnity (in lakhs)
			Loanee Farmers	Non-Loanee Farmers	Total			Farmers share	Grant by Centre	Grant by State	Total Premium			
1	Bilaspur	OIC	9101	11717	20818	6548.22	1964.47	29.47	137.51	137.51	304.49	-	4313	151.78
2	Kinnaur	OIC	0	121	121	37.12	9.84	0.11	0	0	0.11	-	-	-
3	Kullu	OIC	0	185	185	80.163	24.05	0.04	0.13	0.13	0.30	-	-	-
4	Mandi	OIC	9099	34871	43970	12032.80	3603.45	54.05	120.94	120.94	295.93	-	89	1.00
5	Shimla	OIC	258	176	434	96.42	28.93	0.44	0.58	0.58	1.60	-	-	-
6	Sirmour	OIC	2250	697	2947	1756.68	527.06	7.91	24.90	24.90	57.71	-	-	-
7	Solan	OIC	1430	497	1927	1096.13	325.84	4.93	6.17	6.17	17.27	-	-	-
Total			22138	48264	70402	21647.54	6483.64	96.95	290.23	290.23	677.41	-	4402	152.78

Source: Divisional Office of Oriental Insurance Company, Shimla.

Table-1.6: District-wise Performance of AIC under PMFBY during Rabi 2016-17 Season (Cluster-2)

Sr. No.	District	Name of the Executing Agency	No. of Farmers insured			Insured area (in hectares)	Sum insured (in lakh Rupees)	Premium (in Lakh Rupees)				Claims registered	No. of Beneficiary farmers	Distributed Indemnity (in lakhs)
			Loanee Farmers	Non-Loanee Farmers	Total			Farmers share	Grant by Centre	Grant by State	Total Premium			
1	Chamba	AIC	3549	24	3573	958.30	287.46	4.31	4.31	4.31	12.93	-	-	-
2	Hamirpur	AIC	17859	7035	24894	8472.82	2541.84	38.13	137.26	137.26	312.65	-	-	-
3	Kangra	AIC	36017	1351	37368	12932.67	3879.80	58.20	29.10	29.10	11.64	-	-	-
4	Una	AIC	12740	710	13450	5986.72	1796.02	26.94	51.19	51.19	129.32	-	-	-
Total			70165	9120	79285	28350.51	8505.12	127.58	221.86	221.86	466.54	-	-	-

Source: Regional office of Agriculture Insurance Company, Chandigarh.

The cluster-2 was given to AIC executing agency, which covered four districts of Himachal Pradesh under the scheme during kharif 2016-17 season (Table-1.4). Out of total number of 76,697 insured farmers, 75,783 were loanee farmers and 914 were non-loanee farmers. Out of total insured farmers, as well as loanee and non-loanee insured farmers, largest proportion of farmers were covered in Kangra district, and lowest in Chamba district. In case of insured area, this cluster has covered 24681.48 hectares in the state; highest insured area lies in Kangra district and least in Chamba district. The total target of sum insured was Rs. 17537.45 lakhs, which was highest for Kangra district and lowest for Chamba district. Total premium was Rs. 155.96 lakhs collected by AIC during kharif season 2016-17 in the state, which was totally paid by farmers and there was no premium share of both governments. Further, it is clear from table that cluster-2 has no figure regarding claim component of the scheme, however, 3,106 farmers were benefitted in Kangra and Chamba districts under this scheme, out of which highest coverage of beneficiary recorded in Chamba district. Therefore, this cluster has not been provided any claim/compensation for farmers, however number of benefitted farmers already mentioned by executing agency under this scheme. Further, it can be concluded that Agriculture Insurance Company has not maintained proper data record of the PMFBY during kharif season (Cluster-2) due to its weak execution.

The OIC was executing agency for cluster-1 covered seven districts of Himachal Pradesh under the scheme during rabi 2016-17 season. Out of total number of 70,402 insured farmers, 22,138 were loanee farmers and 48,264 were non-loanee farmers (Table-1.5). Mandi district covered largest numbers of total insured farmers and Kinnaur district covered lowest. In case of loanee farmers, largest number of insured farmers recorded in Bilaspur district and lowest in Shimla district. In Kinnaur and Kullu districts no crop insurance of farmers under this scheme was recorded. Regarding insured area, 21647.54 hectares area is covered in the state. Highest insured area was recorded in Mandi district and lowest in Kinnaur district. The total target of sum insured was Rs. 6483.64 lakh; highest was in Mandi district and lowest in Kinnaur district. Total premium was Rs. 677.41 lakh collected for Rabi season in the state, highest amount was in Bilaspur district and lowest in Kinnaur district. In the state, premium share of each government was Rs. 290.23 lakh, it was higher in Bilaspur district and lowest in Kullu district. The premium share of farmers was Rs. 96.95 lakh; accounted highest in Mandi district, and lowest in Kullu district during this season. Claim of insurance was found to be nil in cluster-1 under PMFBY

during rabi season 2016-17. However, 4,402 farmers were benefitted in Bilaspur and Mandi districts under this scheme. The highest coverage of beneficiary was recorded in Bilaspur district. It has been observed that executing agency OIC could not maintained complete record of data regarding PMFBY during rabi season (cluster-1).

The cluster-2 was given to AIC executing agency, which covered four districts of the state under the scheme during rabi 2016-17 season. Out of total 79,285 insured farmers, 70,165 were loanee farmers and 9,120 were non-loanee farmers (Table-1.6). Largest numbers of total insured farmers of the state as well as loanee farmers were in Kangra district and least in Chamba district. In case of non-loanee farmers, largest numbers of insured farmers were in Hamirpur district, and least in Chamba district. Under this cluster, total insured area was covered 28350.5 hectares; highest insured area was recorded in Kangra district and lowest in Chamba district. Regarding sum insured target, it was fixed Rs. 8505.12 lakh for the state, which was highest for Kangra district and lowest for Chamba district. Total premium was Rs. 466.54 lakh collected by AIC for rabi season in the state, which was highest in Hamirpur district and lowest in Kangra district. Premium share of each government was Rs. 221.86 lakh, which was higher in Hamirpur district and lowest in Chamba district. The premium share of farmers was Rs. 127.58 lakh, which was maximum in Kangra district and lowest in Chamba district during this season. Further, it is clear from table that cluster-2 has no figure regarding claims, beneficiary farmers and indemnity indicators of the scheme. Therefore, this cluster has not been provided any claim/compensation to farmers. The Agriculture Insurance Company has not maintained proper data record of the PMFBY due to its weak execution.

1.15 Review of Literature

There has been a surfeit of studies made on different aspect of crop insurance schemes in India.

D. Suresh Kumar, .et. al. (2011), highlighted the insulation of farmers against risks in agriculture, government has launched several schemes such as National Agricultural Insurance Scheme and weather index based crop insurance schemes. But their coverage seems to be limited among the farmers primarily due to lack of full information. The study is based on survey of 600 farmers of Tamilnadu conducted to assess their perception about various facets of crop insurance schemes. The Probit and Tobit models have been employed to analyse the factors affecting awareness among the farmers. Crop diversification index has also been used to examine the farmers' adjustment mechanism against risks. The survey has revealed that most farmers (65%)

are aware of risk mitigation measures of the government. But, only half of the farmers have been found aware about the crop insurance schemes/products. This implies that there is need to disseminate information about insurance schemes across the target groups. Further, it has been shown that factors such as gross cropped area, income from other than agricultural sources, presence of risk in farming, number of workers in the farm family, satisfaction with the premium rate and affordability of the insurance premium amount significantly and positively influence the adoption of insurance and premium paid by the farmers. The study has clearly brought out the urgency of developing more innovative products, having minimum human interventions. The study suggested that there is a need for appropriate stakeholders interface and capability building initiatives to enhance adoption of crop insurance scheme and its reach to the target group.

C. Deepak (2017), conducted study as “PMFBY Laying Background for Indian Agriculture Against Monsoon Fluctuation Induced Risks”. The study revealed that the new scheme contains attractive features giving financial security, promoting institutionalized credit and safeguarding bank loans which may make crop insurance more interesting for farmers. Similarly, a higher financial commitment by the government and reduction of premium may invite farmers to adopt *Pradhan Mantri Fasal Bima Yojana*. The government’s move will enhance insurance coverage to more crop area to protect farmers from vagaries of monsoon. Hence the scheme is considered very timely and also quite in tune with similar initiatives in some countries. Making use of technology mandatory will also improve operational efficiency and will be beneficial to both farmers and the insurers. Additionally, since farmer's premium will be low, the uptake of policies would be high. The study suggests that making the new crop insurance scheme mandatory for states will also mean there will be an increase in the list of policymakers. Adding catastrophic events also to this cover to protect farmers against crop loss/damage due to incidents like cyclone would be beneficial to all stakeholders yet again. An efficient regulation mechanism is required to monitor the execution of the scheme and compensates farmers. Even gaps in the scheme such as such as the decision of what to sow and reap is currently not a well-informed choice based on a sound assessment of soil, one size-fits approach on premium's, claims calculation methods, price fluctuations risk needs be addressed. Moving forward the aim of the government should be to farmer generating minimum guaranteed income which depends on both on yield and price. Insuring yield against monsoon will not solve the problem as the price is also a determinant of income. Although government determines MSP (minimum selling price) taking all current costs

into consideration will not guarantee a minimum income to the farmer. So government needs to fix minimum guaranteed income rather than minimum selling price for the agriculture produce.

Centre for Budget and Policy Studies (2017) has conducted a state-level evaluation of the crop insurance scheme – *Pradhan Mantri Fasal Bima Yojna* that was launched in Karnataka in April 2016. The findings suggest that the Department of Agriculture (DoA) had taken a number of initiatives to improve the implementation of the scheme. The share had a high number of crops under coverage, had adopted mobile-based technologies and was testing new approaches to improve the implementation process. However, there were still a few gaps, such as the reliance on CCEs for yield estimates that involve lengthy processes, lack of awareness campaigns, high basis risk, and delay in disbursement of claims – all this hindered the demand for crop insurance. Enhancing the insured area coverage is the key for a sustained implementation of the scheme. Because of diverse agro-climatic zones and crops covered, the number of CCEs required is very high and the use of satellite imagery for direct estimation of crop yields could help reducing CCEs thereby enabling quicker yield estimation which in turn could help in the faster settlement of claims. Similarly, the improvement of awareness and a better understanding of its features among the farming community has potential to enhance the uptake of PMFBY. This intervention has increased the need for the greater accuracy of various forms of data like the crop sown area or crop productivity; this improvement of data quality has wider implications for agricultural policy.

Pradeepika (2017) reviewed PMFBY in the state of Haryana by conducting survey with a sample size of 100 representing financial institutions, implementing agency and agricultural department who were aware of operational modalities of PMFBY scheme. The survey was conducted to investigate the response related to display scheme posters in their office premises, discussion of the scheme with the farmers when they visit the bank/office, distribution of printed hand-outs like brochures, pamphlets to farmers and also include discussion on features and operational modalities of PMFBY on the agenda in various meetings with the farmers. It is found that issues like negative publicity, lack of marketing, non-involvement of agriculture department staff due to operational issues in capturing crop cutting data are the major hindrances in executing PMFBY.

Mahul & Clarke (2012), studied NAIS entire policy process from the NAIS to the modified NAIS and beyond and range of policy options available to the Government of India in designing

a successor. The study also discusses modified NAIS and outlines remaining challenges and options for the future. Although shifting from social crop insurance program with ad-hoc funding from the Government of India to a market-based crop insurance program with actuarially sound premium rates and product design is a major step forward leading to improved MNAIS product and active involvement of private sector insurance markets.

Bhushan and Kumar (2017), studied about the assessment of PMFBY in Haryana, Tamil Nadu and Uttar Pradesh, as well as national level engagement with various stakeholders including farmer and farmers organizations, insurance companies and government departments. The report suggested that while being far superior to previous such schemes, its implementation are seriously compromised. One of the key conclusions of the report is that PMFBY is not beneficial for farmers in vulnerable regions. For farmers in vulnerable regions such as Bundelkhand and Marathwada, factors like low indemnity levels, low threshold yields, low sum insured and default on loans make PMFBY a poor scheme to safeguard against extreme weather events. This study shows that farmers in these areas might not get any claim even if more than half of their crops are damaged.

1.16 Summing up

The study reveals that 212 CCEs has conducted for Maize crop during kharif season 2016-17 under PMFBY. Out of which, 148 experiments were selected and 64 experiments were rejected by the implementing agencies. For Paddy crop, total 118 CCEs were planned by implementing agencies, out of which, only 78 experiments were conducted whereas 36 were selected and 42 experiments were rejected by the implementing agencies. During rabi season, total 262 CCEs were planned for wheat crop under PMFBY but there is no complete list maintained by Agriculture Department that how much experiments have been conducted for this crop.

In the state, during kharif 2016-17 season, there were two executing agencies IFFCO-TOKIO and Agriculture Insurance Company which covered and insured farmers for maize and paddy crops under the scheme. These agencies covered 1,10,878 farmers under the scheme, 1,08,947 were loanee and 1,931 were non-loanee farmers in the state. The coverage of total insured loanee as well as non-loanee farmers was highest in Kangra district. Total insured area under kharif season was 35417.7 hectares', the total target of sum insured was fixed Rs. 25163.38 lakhs and total premium was Rs. 295.32 lakhs in the state. The total claim amount was

Rs. 57.43 lakhs only provided for Solan district of the state under PMFBY during kharif season 2016-17.

In Himachal Pradesh during Rabi 2016-17 season, there were two executing agencies Oriental Insurance Company and Agriculture Insurance Company which covered and insured a total of 1,49,687 farmers for wheat and barley crop under this scheme. Out of which, 92,303 were loanee farmers and 57,384 were non-loanee farmers. The coverage of total insured farmers was highest in Mandi district. The coverage of loanee and non-loanee farmers was highest in Kangra and Mandi districts and least in Shimla and Chamba districts. Total insured area under Rabi season was 49998 hectares, total target of sum insured was fixed Rs. 14988.76 lakhs and total premium was Rs. 1143.95 lakhs in the state. There was no claim provided under the scheme during this season. This is due to the weaknesses of Insurance Companies and Executing Agencies and they have no proper record and data regarding claim/compensation and other aspects of the scheme.

Executing agency-wise (Cluster-based) progress of PMFBY indicates that OIC has not maintained proper data record of Cluster-1, AIC has not maintained proper record of Cluster-2 of rabi season and Cluster-2 of kharif season due to its weak execution system. However, IFFCO-TOKIO Agency has maintained proper record of data regarding Cluster-1 of PMFBY during kharif season.

Chapter- 2

RESEARCH DESIGN AND METHODOLOGY

2.1 Coverage of Study

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. The *Pradhan Mantri Fasal Bima Yojana* (PMFBY) was launched by Prime Minister of India – Shri Narendra Modi on 18 February 2016. It envisages a uniform premium of only 2 per cent to be paid by farmers for Kharif crops and 1.5 per cent for Rabi crops, while that for annual commercial and horticultural crops will be 5 per cent. This scheme has been launched in the state of Himachal Pradesh from Kharif, 2016 season as per the Administrative approval and Operational guidelines issued by the department of Agriculture, Ministry of Agriculture, and Government of India. Under this insurance scheme, Maize and Paddy crops will be covered during Kharif season and Wheat and Barley crops will be covered during Rabi season. The present study has been covered the period of one year during 2016-2017 under PMFBY in Himachal Pradesh.

Since the PMFBY has been in operation in the country for the last about two years, it is pertinent to evaluate whether the scheme has been able to achieve its objectives, or not. Thus, a study at all India level has been planned by Ministry of Agriculture and conducted by the coordinator. State level performance of PMFBY has been studied by AERCs (Agro Economic Research Centres) of every state. Therefore, present study has been conducted by AERC, Himachal Pradesh University, Shimla- 5 with the following specific objectives.

2.2 Objectives of the Study

1. To evaluate the performance of PMFBY along with its implementation including insurance companies, as well as, analyse its background in the state.
2. To analyse the socio-economic profile of insured farmers vis-à-vis non-insured farmers under Kharif and Rabi crop-2016-17.
3. To analyse the insurance behavior and awareness level of sampled household under PMFBY in the state.
4. To study the stakeholders perspectives and to identify the constraints (issues & challenges) hindering the performance of the scheme.

5. To suggest recommendations for policy improvements and better implementation of the scheme in the state.

2.3 Sampling Methodology

Multistage stratified random cum purposive sampling technique has been used in selection of zones, districts, blocks and farmers. The stratification has been done on the basis of zones, districts and block in the state. Himachal Pradesh has been divided into three Agro climatic zones. In the first stage of sampling, all the three zones have been selected for the study. Secondly, the district having high uptake percentage, middle uptake and low uptake of insured farmers out of land holdings in the particular zone are selected for the study (Table-2.1). Thus, Hamirpur district in high uptake, Solan in Middle uptake and Shimla in low uptake of insured farmers under PMFBY were selected at this stage. Hamirpur district represent low hill zone, Solan district is in mid hill zone and Shimla district is from high hill zone. Further, from each selected district one block was selected on the same consideration, the details have been presented in Table-2.2. In the selected blocks, a list of insured farmers was prepared and a sample of 30 loanee and 10 non-loanee farmers from each selected block was drawn. A sample of 10 non insured farmers was drawn from the same each selected block as control group. Hence, total sample consists of 90 loanee farmers, 30 non-loanee farmers and 30 non-insured farmers in the state.

Table-2.1: District-wise number of Farmers Insured in Himachal Pradesh during 2016-17

Sr. No.	Districts	Number of Farmers insured	Number of Holdings	% of farmers insured
1	Bilaspur	32,172	57,422	56.03
2	Chamba	8,772	70,630	12.42
3	Hamirpur	42,886	76,140	56.33
4	Kangra	78,497	2,35,904	33.27
5	Kinnaur	121	10,757	1.12
6	Kullu	192	74,444	0.26
7	Mandi	51,580	1,54,302	33.43
8	Shimla	1,024	1,10,005	0.93
9	Sirmour	7,684	50,721	15.15
10	Solan	11,810	53,456	22.09
11	Una	25,827	62,710	41.18
	Total in H P	2,60,565	9,56,491	27.24

2.4 Sampled Districts

- Low uptake district: A district which has lowest number of insured loanee and non-loanee farmers. District Shimla was selected for low uptake and Basantpur Block has been covered under this district
- Medium uptake district: A middle district in terms of the number of farmers. District Solan was selected for this category and Kunihar block has been covered under this district.
- High uptake district: A district in the state which has the highest number of insured farmers. Here, district Hamirpur was selected under this case and Nadaun block has been covered.

Category- 1 (30 farmers from each district): **Loanee Farmers** –All farmers who avail of agri-credit i.e. seasonal operational loans, are by default enrolled for PMFBY and the premium amount is deducted from their loan amounts at source by the banks.

Category- 2 (10 farmers from each district): **Non-Loanee Farmers** – These are farmers who have not taken agri-credit and hence do not automatically qualify for insurance under PMFBY. But they have voluntarily enrolled for PMFBY by paying premiums.

Category- 3 (10 farmers from each district): **Non-Insured Farmers**– These are farmers who are aware and unaware of the insurance scheme and have **not** opted for insurance under PMFBY for some reason – either they do not trust it, or do not think it is important enough or have other means of risk management. This third category is also called the control group.

Table-2.2: Classification of Sampled Farmers

Particulars	Sampled district	Sampled Block/Tehsil	Insured farmers		Non-insured farmers (control group)	Total Sample
			loanee	Non-loanee		
Low uptake district	Shimla	Basantpur	30	10	10	50
Medium uptake district	Solan	Kunihar	30	10	10	50
High uptake district:	Hamirpur	Nadaun	30	10	10	50
Total	Himachal Pradesh		90	30	30	150

2.5 Data Collection and Analysis

The present study has involved the use of secondary data, as well as collection of primary data. The sources of information involved include: Directorate of Agriculture, Deputy Directorate of districts, Block Levels Agriculture departments, Directorate of Economics and Statistics, schemes monitoring authority like; Insurance Companies and Nodal Bank Agencies responsible for PMFBY. Primary data has been collected with the help of questionnaire from sampled households as well as stakeholders involved in PMFBY set up. Simple tabular analysis, simple percentage or average methods have been used in the study to arrive the conclusions.

Chapter-3

SOCIO-ECONOMIC CHARACTERISTICS AND CREDIT STRUCTURE OF SAMPLED HOUSEHOLDS

The present chapter has been devoted to understand the socio-economic background of the sampled households. This is necessary to evaluate the background under which these households have been operating, so that the inference could be viewed accordingly.

3.1 Demographic Profile of Sampled Farm Households

The demographic structure such as family size, work force, literacy and dependency rate of sampled households has been analysed and presented in Table-3.1 which shows that the average family size was 5 persons for loanee farmers, and 6 persons for non-loanee and non-insured farmers each. The number of workers for loanee farmers was 3.28 per family, out of which 1.68 were males and 1.60 were females. Similarly for non-loanee farmers, there were 3.73 workers/family, 1.86 males and 1.87 females and lastly for non-insured farmers there were 3.4 workers/family of which 1.83 were males and 1.57 were females. Numbers of workers was highest in the low uptake district of Shimla and least in middle uptake district of Solan. The literacy rate for loanee farmers in the state was found to be 91.18 per cent (96.36% for male and 85.32% for female) whereas for non-loanee farmers it was 85.88 per cent (84.34% for male and 87.36% for female) and for non-insured farmers it was 84.34 per cent (87.10% for male and 80.82% for female). Literacy rate in all three districts was more or less similar (see Annexure-1, 31, 61).

Fig-3.1: Literacy Rate in Sampled Households

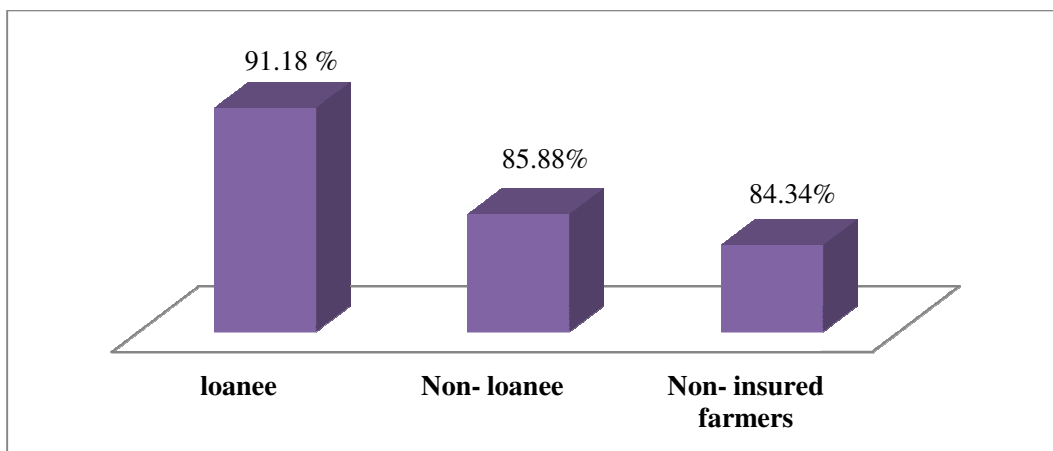


Table-3.1: Demographic Profile of Sampled Households in the State

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Average Family size	5	6	6
Workers	3.28	3.73	3.40
-Male	1.68	1.87	1.83
-Female	1.60	1.86	1.57
Literacy (%)	91.18	85.88	84.34
-Male	96.36	84.34	87.10
-Female	85.32	87.36	80.82
Dependency Rate	36.56	34.12	38.55

Not much variation was found in the dependency rate for the three categories of farmers being 36.56 per cent for loanee farmers, 34.12 per cent for non-loanee farmers and 38.55 per cent for non-insured farmers. Dependency rate was found to be highest in middle uptake district of Solan for all three categories (see Annexure-31).

3.2 Age Composition

As can be seen from the Table-3.2, the maximum percentage of people from the sampled households was in the age group of 16-60 years, figures being 63.44 per cent for loanee farmers (61.14 for male and 66.05% for female), 65.88 per cent for non-loanee farmers (67.47% for male and 64.37% for female) and 61.44 per cent for non-insured farmers (59.15% for male and 64.38% for female). The lowest percentage of population fell in the age group of 0-5 years, in which 5.81 per cent people were in loanee farmers group (5.26% for male and 6.42% for female); 8.23 per cent people for non-loanee farmers (10.84% for male and 5.75% for female) and 4.22 per cent for non-insured farmers (4.30% for male and 4.11% for female). Distribution of population for rest of the age groups were as follows: the age group of 5-16 years had 16.56 per cent of loanee farmers (18.22% for male and 14.68% for female), 14.17 per cent of non-loanee farmers (9.64% for male and 19.54% for female) and 19.88 per cent of non-insured farmers (23.65% for male and 15.07% for female). In the age group of 60 years and above, there were 14.19 per cent of loanee farmers (15.38% for male and 12.85% for female), 11.18 per cent of non-loanee farmers (12.05% for male and 10.43% for female) and 14.46 per cent non-insured farmers (12.90% for male and 16.44% for female). Similar pattern was noticed in age composition of individual districts (see Annexure-2, 32, 62).

Table- 3.2: Age Composition of Sampled Households in the State**(all figures in %)**

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
0-5	5.81	8.23	4.22
-Male	5.26	10.84	4.30
-Female	6.42	5.75	4.11
5-16	16.56	14.71	19.88
-Male	18.22	9.64	23.65
-Female	14.68	19.54	15.07
16-60	63.44	65.88	61.44
-Male	61.14	67.47	59.15
-Female	66.05	64.37	64.38
Above 60	14.19	11.18	14.46
-Male	15.38	12.05	12.90
-Female	12.85	10.34	16.44
Total	100.00	100.00	100.00
-Male	100.00	100.00	100.00
-Female	100.00	100.00	100.00

3.3 Educational Status of Sampled Households

Education is the basic prerequisite for the development, and due to this importance, it is analysed on the basis of their educational level. As far as the respondents are concerned, some of them were highly qualified, whereas, others were less qualified, and some illiterate. An attempt has been made to examine these variation on the basis of the qualification of individual family members of the sample households. The analysis has been carried out separately for insured farmers and non-insured households under the scheme.

The results of analysis of the education qualifications of the insured and non-insured persons have been presented in Table-3.3, which indicates that majority of loanee farmers have qualification of secondary level, the percentage of these farmers was 25.47 per cent out of total persons of loanee farmers and this is followed by those individuals who have attained qualification of matric, primary, middle, graduate/post graduate and technical education levels, respectively. In case of non-loanee farmers, majority of them have attained qualification of primary (26.03%) and it is followed by those who have attained qualification of matric, secondary, graduate/post graduate, middle and technical educational levels, respectively. There is a large disparity in qualification on the basis of gender. Among males, majority of them were

Table-3.3: Educational Status of Sampled Households in the State**(all figures in %)**

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Primary	20.52	26.03	20.71
-Male	15.97	15.71	14.81
-Female	26.34	35.53	28.82
Middle	16.98	13.70	25.00
-Male	15.55	14.28	28.39
-Female	18.82	13.16	20.34
Matric	24.06	21.92	17.86
-Male	28.57	30.00	17.28
-Female	18.28	14.47	18.64
Secondary	25.47	21.23	21.43
-Male	26.89	17.14	27.16
-Female	23.66	25.00	13.56
Graduate/post graduate	10.14	15.75	12.14
-Male	9.66	21.43	8.64
-Female	10.75	10.53	16.95
Technical	2.83	1.37	2.86
-Male	3.36	1.44	3.72
-Female	2.15	1.31	1.69
Total	100.00	100.00	100.00
-Male	100.00	100.00	100.00
-Female	100.00	100.00	100.00

matriculate and among females, majority of them were only primary pass under both category of insured farmers. On the other hand, majority of non-insured farmers (25%) have qualification of middle level and it is followed by those who have attained qualification of secondary, primary, matric, graduate/ post graduate and technical levels of education, respectively. Majority of male farmers have attained qualification of middle level of education and majority of female farmers have attained qualification of primary level. Further, it is also observed that more than 90 per cent of total family members were literate in case of loanee farmers, whereas, majority of them were secondary pass and majority of males persons were matriculate and females persons were primary level. However, in case of non-loanee, more than 85 per cent of total family members, were literate, whereas, majority of them were primary pass and majority of male persons were matriculate and female persons were primary pass. Further, it is observed that non-insured persons have attained better qualification than non-loanee farmers. But gender educational status

of non-insured farmers was poor than insured farmers. Therefore, it can be concluded that loanee farmers have attained better educational status among three categories of sample.

District-wise analysis (Annexure-3, 33, 63) indicates that majority of family members related to insured or non-insured farmers of low uptake district (Shimla) have attained better educational status of secondary level as compared to other districts

3.4 Occupational Pattern

Himachal Pradesh primarily being an agriculture dominant state, therefore, maximum percentage of population from sampled households was involved in agriculture. Table-3.4(a) presents the primary occupational pattern of the sampled households in the state. In case of loanee farmers, 65.57 per cent workers were involved in agriculture, but here participation of females was almost double (89.28%) than that of males (45.45%). Similar trend was witnessed in

Table- 3.4(a): Occupational Pattern of Sampled Households in the State (Primary)
(all figures in %)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Agriculture	65.57	62.28	65.35
-Male	45.45	39.34	43.86
-Female	89.28	88.68	93.18
Wage Labour	6.88	5.26	1.98
-Male	6.67	6.56	3.51
-Female	7.14	3.77	0
Service	13.44	19.31	22.77
-Male	22.42	31.15	35.09
-Female	2.86	5.66	6.82
Rural Artisan	2.29	5.26	2.97
-Male	3.64	9.84	5.26
-Female	0.72	0	0
Business	11.82	7.89	6.93
-Male	21.82	13.11	12.28
-Female	0	1.89	0
Total	100.00	100.00	100.00
-Male	100.00	100.00	100.00
-Female	100.00	100.00	100.00

case of non-loanee and non-insured farmers as well. About 62 per cent workers of non-loanee group were involved in agriculture, in which contribution of males was 39.34 per cent, whereas, that of females was 88.68 per cent. Among non-insured group 65.35 per cent were engaged in agriculture, in which, 43.86 per cent was the contribution of males and 93.18 per cent was of

females. Middle uptake district of Solan had the highest percentage of population involved in agriculture (see Annexure-34).

The workers engaged in wage labour were 6.88 per cent, 5.26 per cent and 1.98 per cent of total workers from the loanee, non-loanee and non-insured farmers categories, respectively, with no involvement of females of non-insured farmers group. Wage labour reported as occupation by workers was relatively higher in the high uptake district of Hamirpur (see Annexure-4).

Table-3.4(b): Occupational Pattern of Sampled Households in the State (Subsidiary)
(all figures in %)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Agriculture	66.43	69.77	70.27
-Male	78.26	83.34	80
-Female	43.76	38.46	50
Wage Labour	25.00	20.93	27.03
-Male	10.87	3.33	20
-Female	52.08	61.54	41.67
Service	0.72	2.32	0
-Male	0	3.33	0
-Female	2.08	0	0
Rural Artisan	1.42	0	0
-Male	2.17	0	0
-Female	0	0	0
Business	6.43	6.98	2.7
-Male	8.70	10	0
-Female	2.08	0	8.33
Total	100.00	100.00	100.00
-Male	100.00	100.00	100.00
-Female	100.00	100.00	100.00

Service sector engaged 13.44 per cent, 19.31 per cent and 22.77 per cent of total workers among loanee, non-loanee and non-insured farmers group, respectively with majority contribution coming from males being 22.42 per cent, 31.15 per cent and 35.09 per cent for the three groups. Female contribution was relatively very small being 2.86 per cent, 5.66 per cent and 6.82 per cent in the three groups, respectively. Highest percentage of population involved in service sector was in low uptake district of Shimla (see Annexure-64).

The occupation of rural artisans has lowest involvement of the workforce with 2.29 per cent, 5.26 per cent and 2.97 per cent contribution for loanee, non-loanee and non-insured farmers

and the contribution of females was seen only in case of loanee farmers of 0.72 per cent. Rest two categories have no contribution from women.

Again business was a male workers dominant occupation. Its overall contribution in the three categories was 11.82 per cent, 7.89 per cent and 6.93 per cent for three categories with female contribution only in the loanee category and that too at just 1.89 per cent.

State level subsidiary occupational pattern of the sampled households have been presented in Table-3.4(b). In case of subsidiary occupation as well, the main occupation turned out to be agriculture with 66.43 per cent, 69.77 per cent and 70.27 per cent contribution from the three categories but unlike primary occupation, major contribution to agriculture as subsidiary occupation was from men (78.26%, 83.34% and 80% for three categories in order). Nevertheless contribution of women was also good (43.76%, 38.46%, and 50%). Then came wage labour where female participation was more compared to male, contrary to the pattern in case of primary occupation. Among subsidiary occupations, business, rural artisan work and service sector has very less contribution of workforce in the state as well as individual districts (see Annexure-5, 35, 65).

3.5 Household Durables

The classification of household durables owned by sample households has been presented in Table-3.5(a) which indicates that the modern durables owned per household for loanee farmers was 2.89, for non-loanee farmers 2.87 and for non-insured farmers these were 2.60. For all three categories highest percentage of total number of durables was of television (32.31%, 33.72% and 38.46%). Then it was refrigerators (25.77%, 31.40% and 32.05%) and then washing machines (18.08%, 15.12% and 17.94%). The other modern durables like two wheelers, four wheelers and sewing machines each contributed less than 10 per cent of the total number in case of all three categories (see Annexure- 10, 40, 70).

In terms of proportion of value of all household durables (Table-3.5(b)), value of four wheelers accounted for 93.32 per cent in case of loanee farmers, 74.90 per cent in case of non-loanee farmers and 54.65 per cent in case of non-insured farmers. This variation is attributed to the fact that non-insured sample group in high uptake district of Hamirpur had no four wheelers.

Even though the same was true for loanee farmers in Hamirpur but this was made up for by the affluence of farmers in middle and low uptake districts of Solan and Shimla. Due to four wheelers contributing for majority proportion of total value for loanee farmers, the contribution

of other durables became less than 2 per cent each. Despite this, the pattern was similar in the state and all three districts individually (see Annexure-11, 41, 71) with TV, refrigerators, washing machines, two wheelers and sewing machines being contributors in descending order.

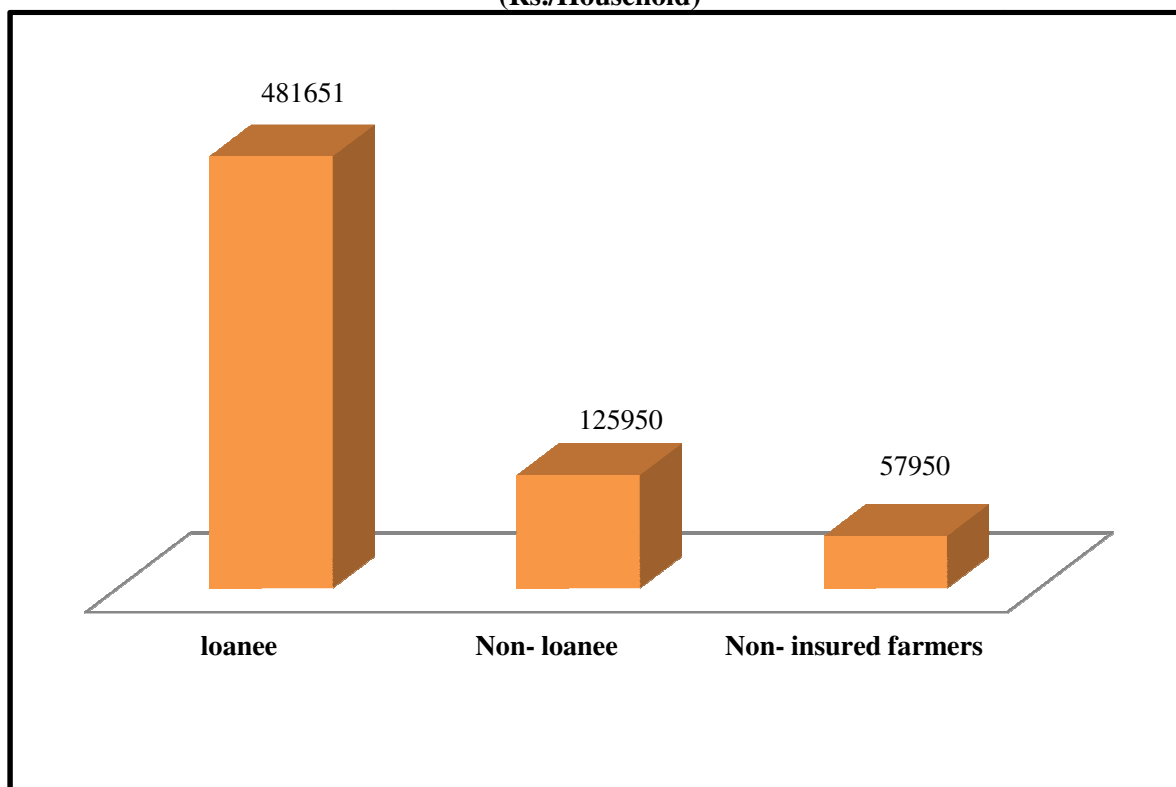
Table-3.5(a): Number of Modern Durables Owned by Sampled Households in the State
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
TV	32.31	33.72	38.46
Refrigerator	25.77	31.40	32.05
Washing Machine	18.08	15.12	17.94
Sewing Machine	10.00	6.98	3.85
Two Wheeler	5.00	4.65	3.85
Four Wheeler	8.84	8.13	3.85
Total	100.00	100.00	100.00
No./HH	2.89	2.87	2.60

Rs./HH: Rupees Per Household.

On an average, value of all durables per household was comparatively higher at Rs. 4, 81,651 in case of loanee farmers, followed by non-loanee farmers Rs. 1, 25,950 and it was least for the non-insured group at Rs. 57,950 per household (see Fig-3.2).

Fig-3.2: Value of Modern Durables on Sampled Households
(Rs./Household)



**Table-3.5(b): Value of Modern Durables Owned by Sampled Households in the State
(% of Total)**

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
TV	1.96	8.52	13.53
Refrigerator	1.58	7.49	14.58
Washing Machine	1.18	4.02	7.49
Sewing Machine	0.10	0.23	0.20
Two Wheeler	1.86	4.84	9.55
Four Wheeler	93.32	74.90	54.65
Total	100.00	100.00	100.00
Value in Rs./HH	481651.11	125950.00	57950.00

Rs./HH: Rupees Per Household.

3.6 Average Annual Income of Sampled Households

Income is the most important indicator which determines the social status and empowerment of the individuals in any society, as well as, process of development. Source wise annual income of sample households has been presented in Table-3.6. The analysis indicates that income earned from service was the major source of household income contributing 35.83 per cent, 63.07 per cent and 47.81 per cent for loanee, non-loanee and insured farmers, respectively. After this source of income, loanee farmers earned more income from business, and it is followed by agriculture. The share of other sources like; labour, MGNREGA, rural artisan, rent and remittance in their income was very low among all the category of sample households. In case of non-loanee farmers, income from service was major contributor, followed by business, pension and agriculture, respectively. Further, the table shows that the per household income of loanee farmers was Rs. 3,20,089, non-loanee farmers was Rs. 4,25,857 and non-insured farmers was Rs. 3,21,836 annually (see Fig-3.3). Whereas, non-loanee farmers have earned large amount of income due to their higher involvement in service sector and earned huge package of salary from this source.

District-wise analysis (see Annexure-13, 43, 73) indicates that per household income of insured loanee and non-loanee farmers and non-insured farmers was highest in low uptake district Shimla because they were mostly engaged in services and nearly 50 per cent, 81 per cent and 69 per cent share of total income earned by loanee, non-loanee and non-insured farmers from this source, respectively.

Fig-3.3: Average Annual Income of Sampled Households (Rs./Household)

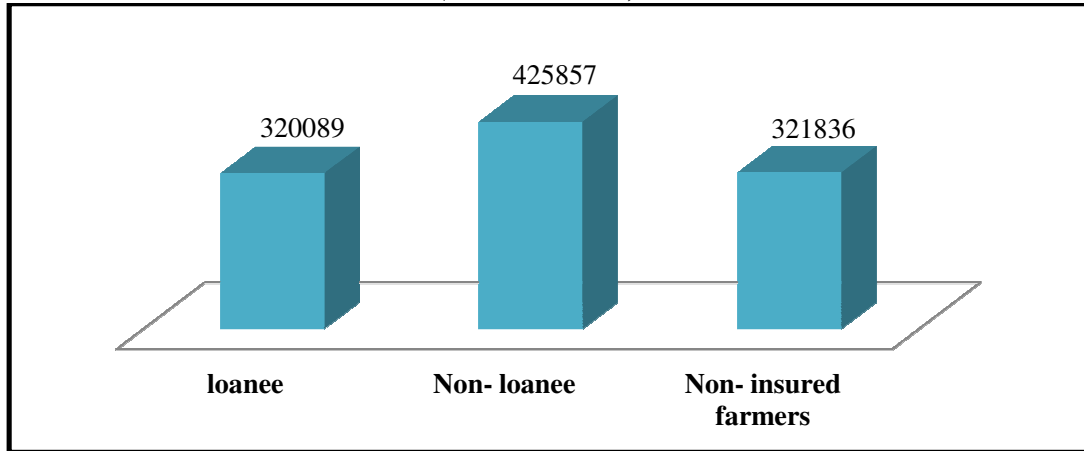


Table-3.6: Average Annual Income of Sampled Household in the State

(% of Total)

Particulars	Insured farmers		Non-insured farmers
	Loanee	Non-loanee	
Agriculture	15.04	6.92	11.50
Service	35.83	63.07	47.81
Farm Labour	1.12	1.25	0.93
MGNREGA	2.41	1.45	1.57
Business	16.02	12.99	13.57
Rural Artisan	2.66	1.79	0.97
Rent	4.52	1.58	1.14
Remittance	0.08	0	0
Pension	22.32	10.95	21.14
Others	0	0	1.37
Total	100.00	100.00	100.00
Annual Income in Rs./HH	3,20,089.07	4,25,857.33	3,21,836.67

Rs./HH: Rupees Per Household.

3.7 Value of Assets per Household

The value of assets, like land, buildings, livestock, farm machinery & equipments owned by sampled farmers is given in Table-3.7. The value of land owned accounted for 65.5 per cent of total value of all assets in case of loanee, 68.3 per cent in case of non-loanee and 78.5 per cent in case of non-insured farmers. The value of building was the next major assets accounted for 26.47 per cent, 26.18 per cent and 17.31 per cent of total value of assets owned by loanee, non-loanee and non-insured farmers, respectively. Value of all assets per household was Rs. 2683406 in case of loanee farmers, Rs. 3185555 in case of non-loanee farmers and Rs. 3349751 in case of non-insured farmers under study (see fig-3.4). District-wise analyses indicate that in case of loanee

category, per household value of assets was higher among middle uptake district Solan but in case of non-loanee and non-insured categories, it was higher among low uptake district Shimla (see Annexure-14, 44, 74).

Fig-3.4: Value of All Assets on Sampled Farms (Rs./Household)

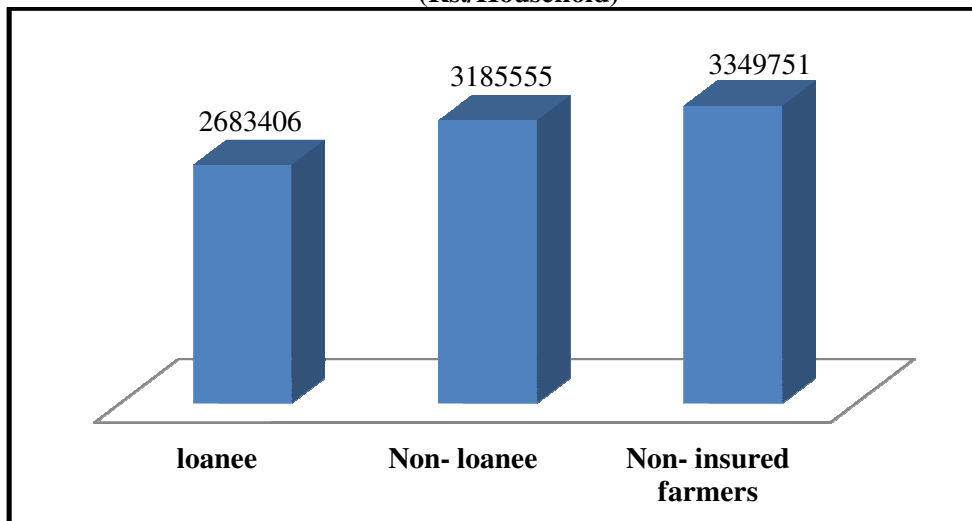


Table-3.7: Asset Related Information of Sampled Farmers in the State

Particulars	Insured farmers		Non-insured farmers
	Loanee	Non-loanee	
Total value of all land owned	65.50	68.30	78.55
Total value of all farm equipment/ Machinery owned	1.43	0.11	0.79
Total value of buildings/house/storehouse/shop/ all real estate	26.47	26.18	17.31
Total value of all livestock	1.99	1.46	1.71
Others	4.61	3.95	1.64
Total	100.00	100.00	100.00
Total Value in Rs. /HH	26,83,406.72	31,85,555.67	33,49,751.67

Rs./HH: Rupees Per Household.

3.8 Credit Structure of Farmers

The sampled farmers obtained loan from commercial banks, Cooperative banks and cooperative societies (Table-3.8). Out of total sampled farmers, 76 loanee, 4 non-loanee and 2 non-insured farmers obtained short term loan from commercial banks. The amount of loan was Rs. 119842 in case of loanee, Rs. 1225000 in case of non-loanee and Rs. 200000 in case of non-insured farmers. The duration of loan was 12-60 months, 12-84 months and 36 months in loanee, non-loanee and non-insured farmers, respectively. The interest rate of commercial banks ranges

between 4-14 per cent. Outstanding loan was relatively higher among non-loanee farmers and lesser in case of loanee farmers.

The farmers who obtained credit from cooperative banks/societies were 14 loanee, 3 non-loanee and 1 non-insured group. The amount of loan was Rs. 222857, Rs. 223333 and Rs. 500000 in case of loanee, non loanee and non-insured farmers, respectively. Interest rate of these banks ranged between 4 to 12 per cent. Amount of outstanding loan was relatively higher among non-insured farmers. Thus, it can be concluded that majority of sample households obtained credit from commercial banks in case of state as well as individual districts (see Annexure-29, 59, 89).

Table-3.8: Credit Structure of Sampled Farm Households in the State

(Rs. /HH)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Commercial Banks			
No. of Farmers	76	4	2
Amount	119842.11	1225000.00	200000.00
Duration (Range)	12-60	12-84	36
Interest rate (% Range)	4	7-14	7-14
Amount paid	50934.21	175000.00	125000.00
Outstanding Amount	68907.89	1050000.00	75000.00
Cooperative Banks/Societies			
No. of Farmers	14	3	1
Amount	222857.14	223333.33	500000.00
Duration (Range)	12-180	6-144	60
Interest rate (% Range)	4	7-12	10
Amount paid	66071.43	19666.67	100000.00
Outstanding Amount	156785.71	203666.66	400000.00

3.9 Purpose of Borrowing

The farmers borrowed money for purchase of agricultural inputs, farm equipments, livestock, household consumption and social obligation. Table-3.9 indicated that the loan taken by loanee farmers was spent on agriculture inputs (87% farmers), followed by household consumption (73% farmers), dairy animal (62% farmers), farm equipments (60% farmers) and social obligation (57% farmers). Non-loanee farmers spent borrowed money on consumption (100% farmers), dairy animals (86% farmers) and agricultural inputs (71% farmers). In case of non-insured farmers purpose of borrowing was consumption (100% farmers), agricultural inputs and dairy animals (67% farmers in each), farm equipment and social obligation 33 per cent farmers

in each). As can be seen from Annexure-30, 60, 90, similar pattern for purpose of borrowing was witnessed for all three districts just as the state.

Table-3.9: Purpose of Borrowing by Sampled Households in the State
(% of Total Sample)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Variable farm Inputs (Fertilizer, Pesticides)	86.67	71.43	66.67
Farm Equipments	60.00	42.86	33.34
Dairy Animals	62.22	85.71	66.67
Consumption	73.33	100.00	100.00
Social Obligation	56.67	28.57	33.34
Others	38.89	28.57	0
Total	100	100	100

3.10 Summing up

The average family size was slightly higher in case of non-loanee and non-insured categories. The average size of workers engaged in farming was also higher among non-loanee insured farmers. The literacy rate was higher among loanee category and it was highest for Hamirpur district. Dependency rate was highest among non-insured category of the state and it was highest for middle uptake district Solan. Majority of sample households were in the age group of 16-60 years, whereas, non-loanee category has got highest percentage. Loanee farmers have attained better educational status of secondary level among three categories of sample. Low uptake district (Shimla) have attained better educational status as compared to other districts.

Majority of workers were involved in agriculture. Among three categories of farmers loanee farmers were highly engaged in agriculture sector.

The modern durables owned per household were highest for loanee category households. For all three categories, highest percentage of total number of durables was of television. Four wheelers accounted highest percentage of total value of durable among all the three categories of farmers, whereas, loanee farmers recorded higher value of four wheelers durable. Service sector was the major source of income among all three categories of sample households in the state. Per household income was highest for non-loanee category and low uptake district Shimla. The value of land was the major asset with its highest value among all three categories in the state. Per household value of all assets was highest among non-insured farmers of the state.

Majority of sampled farmers obtained loan from commercial banks. Per household amount of loan, outstanding loan as well as duration of loan was highest among non-loanee farmers. The purpose of borrowing was purchase of agricultural inputs, farm equipments, livestock, household consumption and social obligation. The loan taken by loanee farmers was mostly spent on agriculture inputs, but non-loanee, as well as, non-insured farmers mostly spent on household consumption.

Chapter- 4

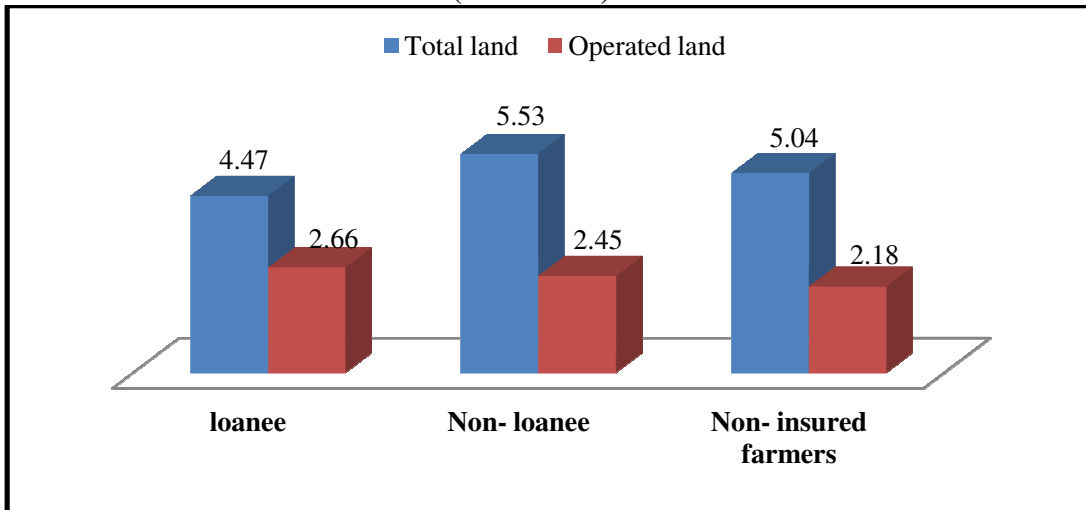
FARM LEVEL CHARACTERISTICS

The farm features like land holding, land use, cropping pattern, intensity, production and marketed surplus of crops grown have been analysed and presented in this chapter. Livestock rearing, farm equipments and machinery and buildings have also been presented in this chapter.

4.1 Average Farm Size

The average size of land holding has been worked out in Table-4.1. This table shows that the average size of land holdings has been worked out 4.47, 5.53 and 5.04 acres on the loanee, non-loanee and non-insured farmers, respectively (see fig-4.1).

**Fig-4.1: Average Land Holding of Sampled Farmers
(Acre/Farm)**



4.2 Land Use Pattern

The average cultivated land on the loanee, non-loanee and non-insured farmers worked out to be 2.66, 2.45 and 2.18, acres respectively. The un-cultivated land on the loanee, non-loanee and non-insured farmers was 1.81, 3.08 and 2.86 acres (Table-4.1). The area under irrigation was relatively higher among non-insured farmers (12% of total land), followed by loanee (7.8%) and non-loanee farmers (5.6%). Leasing system of land was almost absent among all the sampled farmers. Further, it is observed from Annexure-15, 45, 75) that in case of loanee category, the average cultivated land was highest among middle uptake district Solan but in case of non-loanee and non-insured categories, it was highest among low uptake district Shimla. The irrigated area was highest among all three category of farmer in low uptake district Shimla.

Table-4.1: Per Farm Land Holding of Sampled Farmers in the State**(Area in acres)**

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Own Land	4.47	5.53	5.04
- Irrigated	0.35	0.31	0.61
- Unirrigated	4.12	5.22	4.43
Leased in Land	0	0	0
- Irrigated	0	0	0
- Unirrigated	0	0	0
Rent Paid for Leased in Land	0	0	0
-Irrigated	0	0	0
-Unirrigated	0	0	0
Leased Out Land	0	Negligible	0
- Irrigated	0	0	0
-Unirrigated	0	Negligible	0
Rent Received for Leased out Land	0	60.00	0
-Irrigated	0	0	0
-Unirrigated	0	60.00	0
Uncultivated Land	1.81	3.08	2.86
Net Operated Area	2.66	2.45	2.18
-Irrigated	0.35	0.31	0.61
-Unirrigated	2.31	2.14	1.57

4.3 Cropping Pattern

Crops grown and cropped area among the sampled households has been presented in Table-4.2. The table reveals that maize, tomato and paddy were the major kharif crops, and in rabi, wheat, vegetables and barley were important crops grown by the sampled farmers under study. The area under maize crop worked out to be 43 per cent, 42 per cent and 55 per cent on loanee, non-loanee and non-insured farmers, respectively. Paddy occupied 0.14 and 0.31 per cent of total cropped area on loanee and non-loanee farms. This crop was not grown by the non-insured farmers under study. In rabi season, wheat was the major crop occupying about 45 per cent of gross cropped area of loanee farmers, 50 per cent of non-loanee farmers and 44 per cent of cropped area of non-insured farmers. Barley cultivation was observed only on loanee farmers where 0.67 per cent of grossed cropped area was under barley. The area under all crops grown in the year under reference was 4,74 acres in case of loanee farmers, 4.33 acres among non-loanee and 3.46 acres in case of non-insured farmers. Maize and wheat were the major crops of kharif and rabi seasons among sample households of all three districts (Annexure-16, 46, 76).

4.4 Cropping Intensity

The cropping intensity represents the percentage of the gross cropped area to the net area sown. The cropping intensity on the loanee, non-loanee and non-insured farmers has been worked out 178, 177 and 159 per cent, respectively (Table-4.2).

Table-4.2: Cropping Pattern of Sampled Farmers in the State (Area)

(all figures in %)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Kharif Crop			
Maize	42.63	42.98	55.47
Paddy	0.14	0.31	0
Tomato	5.03	6.00	0.58
Millet	0.09	0	0
Pulses (<i>Urd, Kulath</i>)	0.66	0	0
Capsicum	0.09	0	0.19
Sesame	0	0.15	0
Ginger	0.67	0	0
Turmeric	0	0.31	0
Rabi Crop			
Wheat	45.28	50.25	43.68
Barley	0.67	0	0
Cauliflower	0.89	0	0
Onion	0.23	0	0.06
Cabbage	0.51	0	0
Carrot	0.01	0	0
Garlic	0.98	0	0.02
Reddish	0.05	0	0
Potato	0.95	0	0
Fruit Crops			
Apricot	0.56	0	0
Pomegranate	0.56	0	0
GCA (%)	100.00	100.00	100.00
GCA/HH	4.74	4.33	3.46
NSA/HH	2.66	2.45	2.18
Cropping Intensity %	178.19	176.73	158.71

Cropping intensity was comparatively higher among insured farmers as compared to non-insured farmers. This was mainly due to the smaller size of holdings among insured farmers, who cultivate their land more intensively to supplement their meager household income. Further, it is observed that in case of all three categories of sample, cropping intensity was comparatively

higher among high uptake district Hamirpur as compared to other districts (Annexure-16, 46, 76).

4.5 Per Farm Crop Output

The average production among the sample households has been presented in Table-4.3. It is clear from the table that the average production of maize has been worked out at 6.97, 7.50 and 11.07 quintals on the loanee, non-loanee and non-insured farmers, respectively. Per farm production of paddy grown by loanee and non-loanee farmers was 0.02 and 0.10 quintal.

Table-4.3: Per Farm Production of Crops of Sampled Farmers in the State
(Quintals/farm)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Kharif Crop			
Maize	6.97	7.50	11.07
Paddy	0.02	0.10	0
Tomato	2.40	2.17	0.83
Millet	0.08	0	0
Pulses (<i>Urd, Kulath</i>)	0.01	0	0
Capsicum	0.16	0	0.01
Sesame	0	0.001	0
Ginger	0.34	0	0
Turmeric	0	0.01	0
Rabi Crop			
Wheat	6.20	7.03	6.69
Barley	0.09	0	0
Cauliflower	0.75	0	0
Onion	0.14	0	0.015
Cabbage	0.18	0	0
Carrot	0.001	0	0
Garlic	0.75	0	0
Reddish	0.01	0	0
Potato	0.83	0	0
Fruit Crops			
Apricot	0.05	0	0
Pomegranate	0.23	0	0

The average production of wheat crop has been worked out 6.20, 7.03 and 6.69 quintals on the loanee, non-loanee and non-insured farmers, respectively. Average production of barley was 0.09 quintal per farm on loanee farms. The production of other crops grown on sampled

farmers has been presented in Table-4.3. District-wise analyses regarding per farm production of every crops have been presented in Annexure-17, 47, 77.

4.6 Marketed Surplus of Crops Grown

Out of total production of crop grown, quantity sold is the marketed surplus of the crop. Per farm quantity of different crops grown by sampled farmers has been given in Table-4.4. Average quantity of maize sold was 4.33 quintals per farm in case of loanee farmers, 4.50 quintals in case of non-loanee and 8.20 quintals in case of non-insured farmers.

Table-4.4: Per Farm Quantity of Crop Output Marketed by Sampled Households in the State (Quintals/farm)

Particulars	Insured farmers				Non- insured farmers	
	Loanee		Non- loanee		Quantity	Value
	Quantity	Value	Quantity	Value		
Kharif Crop						
Maize	4.33	6287.78	4.50	6750.00	8.20	12706.67
Paddy	0	0	0	0	0	0
Tomato	2.31	6137.78	2.17	6773.33	0.83	3333.33
Small Millet	0	0	0	0	0	0
Pulses (<i>Urd, Kulath</i>)	0	0	0	0	0	0
Capsicum	0.15	600.00	0	0	0.01	50.00
Sesame	0	0	0	0	0	0
Ginger	0.27	955.55	0	0	0	0
Turmeric	0	0	0.005	110.00	0	0
Rabi Crop						
Wheat	2.69	5992.22	3.80	6893.33	4.03	8056.67
Barley	0	0	0	0	0	0
Cauliflower	0.75	1000.00	0	0	0	0
Onion	0.12	244.44	0	0	0	0
Cabbage	0.15	215.55	0	0	0	0
Carrot	0.001	1.78	0	0	0	0
Garlic	0.74	3194.44	0	0	0	0
Reddish	0.01	22.22	0	0	0	0
Potato	0.83	1000.00	0	0	0	0
Fruit Crops						
Apricot	0.05	111.11	0	0	0	0
Pomegranate	0.22	1777.78	0	0	0	0

The marketed surplus of wheat was 2.69, 3.80 and 4.03 quintals per farm among loanee, non-loanee and non-insured farmers, respectively. No marketed surplus was found in case of paddy, pulses and millets, among all sampled farmers. Further, district-wise analyses of marketed surplus of crops grown by sampled household are presented in Annexure-18, 48, 78.

4.7 Sources of Irrigation

Sources of irrigation on sampled farms has been presented in Table-4.5 wherein it is clear that the *kuhl* (gravity water channel) was the major source of irrigation, followed by irrigation by bore well and dug well. The irrigation through water tank was found only in case of loanee farmers. District-wise irrigation sources of sample households have been presented in Annexure-19, 49, 79.

Table-4.5: Irrigation Sources of Sampled Households in the State
(% of Total Sample)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Dug well	3.33	3.33	0
Bore well	3.33	3.33	10.00
Kuhl	8.89	10.00	16.67
Tank	1.11	0	0
Other	0	0	0

4.8 Livestock Rearing on Farm

Livestock is another important indicator to analyse the socio-economic status of sampled household because farmers possess different categories of livestock like; cows, buffaloes, bullocks, sheep/goats and poultry with chief and poor quality of total livestock. Therefore, it is necessary to analyse livestock pattern among different category of sample households.

4.9 Livestock Holding

Majority of insured and non-insured farmers have cows. Out of total livestock, loanee farmers have 65.07 per cent of cows, 24.88 per cent of buffaloes, 6.22 per cent of bullocks and 3.88 per cent of sheep/goats, but in case of non-loanee farmers, these percentages were 48.53, 30.88, 7.35 and 3.24 per cent, respectively. In case of non-insured farmers, 54.93 per cent were cows, 26.76 per cent were buffaloes, 14.08 per cent were Bullocks and 4.23 per cent were sheep/goats (Table-4.6). Further, it is observed that loanee farmers possessed highest percentage of cows as compared to other two category of farmers. In case of buffaloes and sheep/goats, non-loanee farmers had highest percentage, as compared to loanee farmers and non-insured farmers. In case of Bullocks, non-insured farmers had highest percentage rather than insured farmers. There was only one category of sample households which had poultry, that was loanee farmers. Per farm poultry of loanee farmers was 2.83. On an averages per household number of livestock was 2.32 heads in case of loanee farmers and 2.27 heads and 2.37 heads per household in case of non-

loanee and non-insured farmers (see Fig-4.2). Therefore, it can be concluded that, out of total livestock, most of insured and non-insured farmers have cows. Further, non-loanee and non-insured farmers have no poultry.

Fig-4.2: Average Number of Livestock on Sampled Farms (Number/farm)

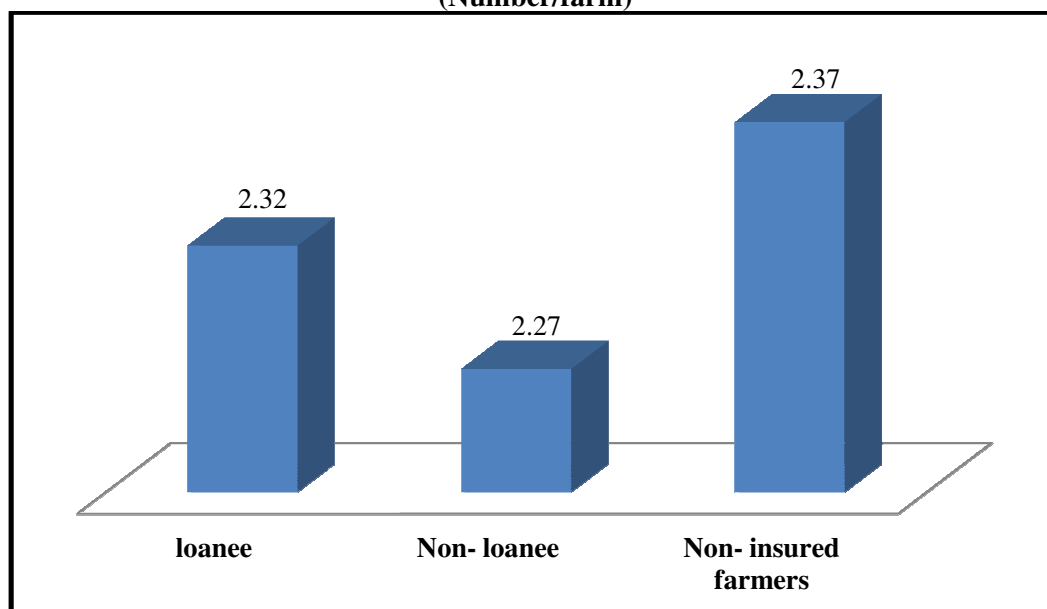


Table-4.6: Number of Livestock Possessed by Sampled Households in the State

(% of Total)

Particulars	Insured farmers		Non-insured farmers
	loanee	Non-loanee	
Cows	65.07	48.53	54.93
Buffaloes	24.88	30.88	26.76
Bullocks	6.22	7.35	14.08
Sheep/Goats	3.83	13.24	4.23
Total	100.00	100.00	100.00
No./HH	2.32	2.27	2.37
Poultry/HH	2.83	0	0

/HH: Per Household

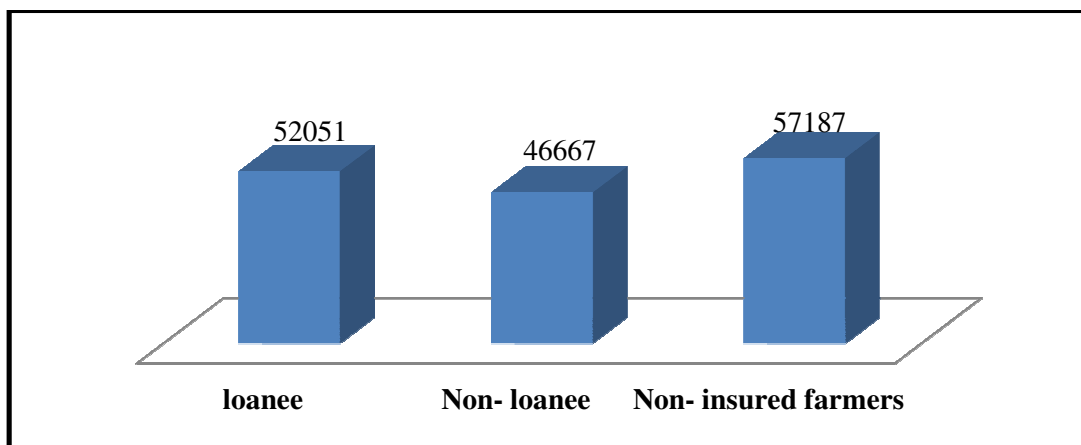
District-wise analysis indicate that in high uptake district (Hamirpur), majority of both insured and non-insured farmers have buffaloes and they have no bullocks or poultry. Per farm number of livestock was 1.73 head, 2.90 head and 1.50 head among loanee, non-loanee and non-insured farmers respectively. In middle uptake district (Solan), majority of farmers have cows. Per farm poultry was 4.90 which was possessed by loanee farmers only. Per household number of livestock among three categories were 2.23, 1.90 and 2.30 heads, respectively, whereas non-insured farmers have larger size of heads. In case of low uptake district (Shimla) per farm

poultry was 3.60 which was owned by loanee farmers only. Per farm number of livestock was 3.00, 2.00 and 3.30 herads in case of loanee, non-loanee and non-insured farmers, respectively. Therefore, insured and non-insured farmers of low uptake district have larger size of livestock/head as compared to other two districts.

4.10 Per Farm Value of Livestock

Value is also a major aspect of livestock possessed by sample households because some farmers own high value livestock and some low value livestock. Per farm value of livestock owned by sampled household is presented in Table-4.7. The table reveals that per farm value of all livestock possessed by loanee, non-loanee and non-insured farmers was Rs. 52051, Rs. 46667 and Rs. 57187, respectively. The value of livestock is correlated with the number of livestock possessed by the households under study. The share of value of cows in total value of all livestock was higher in loanee and non-insured farmers and lesser in non-loanee farmers. However, in case of non-loanee farmers, share of buffaloes in total value of livestock was highest (54.14%), followed by non-insured (43.14%) and loanee farmers (36.67%). Value of sheep/goat flock was significantly higher in case of non-loanee farms than that of loanee and non-insured farmers under study. However, 8.04 per cent of total value of all livestock is accounted for bullocks reared by non-insured farmers. The value of poultry owned by loanee farmer was Rs. 1067.78 per household.

Fig-4.3: Average Value of Livestock on Sampled Farm (Rs/farm)



District-wise analyses shows that there is wide disparity in value of livestock among three districts. In high uptake district Hamirpur both insured and non-insured farmers had the buffaloes as the animals with highest share in the total livestock value. However, in case of low or middle uptake districts Shimla and Solan, all the categories of farmers had cows as the

livestock with highest percentage share. Per farm value of total livestock for loanee farmers was highest in district Solan. Per farm value of total livestock for non-loanee farmers and non-insured farmers was highest in district Hamirpur and district Shimla respectively (see Annexure-7, 37, 67).

Table-4.7: Value of Livestock Possessed by Sampled Households in the State
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Cows	59.51	34.50	48.00
Buffaloes	36.61	54.14	43.14
Bullocks	3.31	3.64	8.04
Sheep/Goats	0.57	7.72	0.82
Total	100.00	100.00	100.00
Value in Rs./HH	52051	46667	57187
Poultry/HH (Rs.)	1068	0	0

Rs./HH: Rupees Per Household.

4.11 Farm Machinery

As evident from Table-4.8, number of farm equipments and machinery owned per household was 13.93 on loanee farms, 9.50 on non-loanee farms, and 10.20 on non-insured farms. In the total number of equipments and machinery, the hand-operated machines and equipments had the highest share 97.93 per cent, 98.60 per cent and 98.03 per cent for the three farmer groups, respectively.

Table-4.8: Number of Farm Equipments and Machinery Owned by Sampled Households in the State

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Hand Operated	97.93	98.60	98.03
Animal Drawn	0.15	0	0.33
Thresher	0.72	0	0.33
Chaff Cutter	0.80	1.40	0.98
Tractor	0.40	0	0.33
Total	100.00	100.00	100.00
No./HH	13.93	9.50	10.20

/HH: Per Household.

The animal drawn equipments, thresher, chaff cutter and tractor, having small share in the total number of equipments and machinery. The share of hand-operated equipments was highest for all three districts (see Annexure-8, 38, 68).

Fig-4.4: Average Value of Farm Equipments and Machinery on Sampled Farms (Rs/farm)

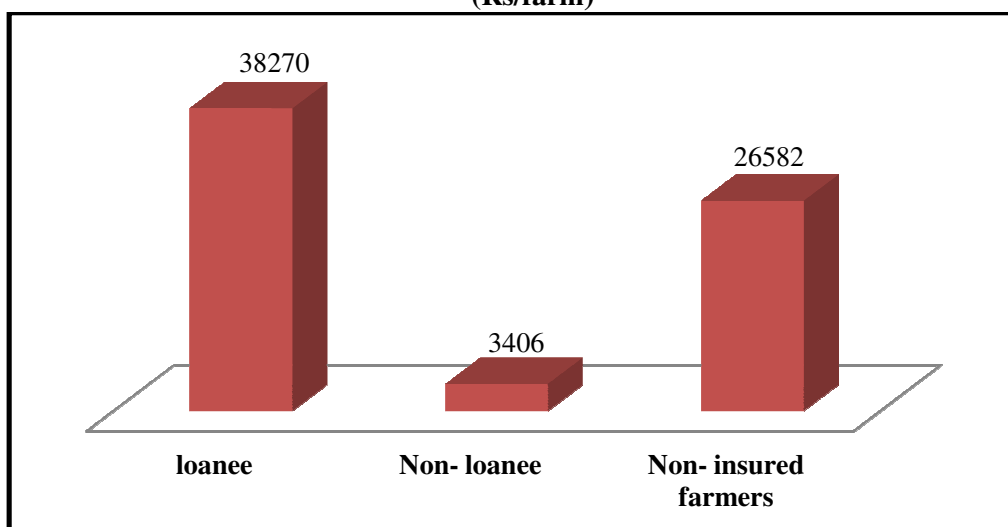


Table-4.9: Value of Farm Equipments and Machinery Owned by Sampled Households in the State (% of Total)

Particulars	Insured farmers		Non-insured farmers
	Loanee	Non-loanee	
Hand Operated	13.79	75.96	18.36
Animal Drawn	0.05	0	3.14
Thresher	15.91	0	5.64
Chaff Cutter	2.02	24.04	3.89
Tractor	68.23	0	68.97
Total	100.00	100.00	100.00
Value in Rs./HH	38270	3406	26582

Rs./HH: Rupees Per Household.

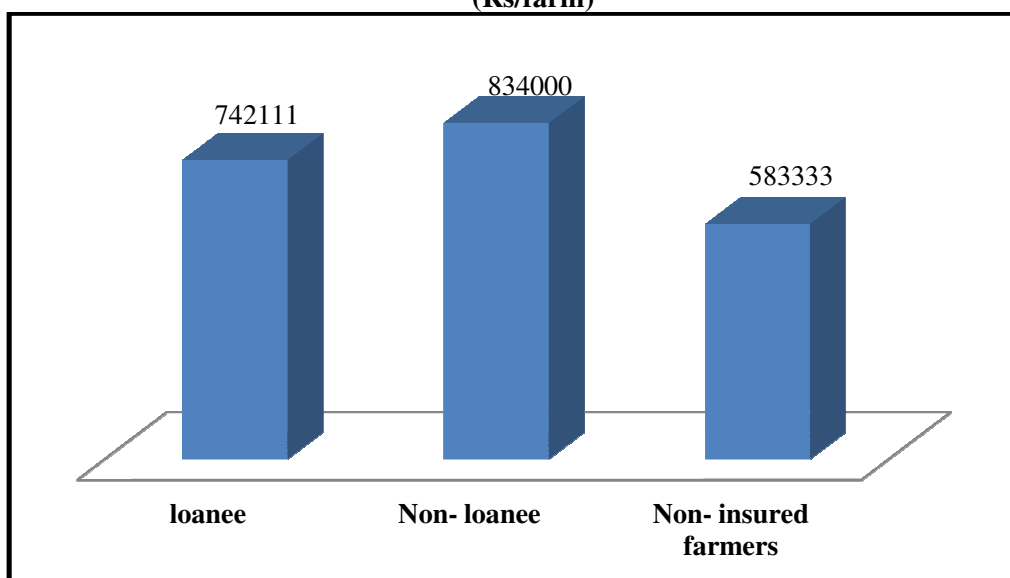
From Table-4.9, it can be seen that in terms of value, there is a wide disparity in proportionate value of hand-operated equipments of the three categories. The value of hand-operated equipments ranged from 13.79 per cent for loanee farmers, 18.36 per cent for non-insured farmers to as high as 75.96 per cent of total equipments and machines for non-loanee farmers. Per household value of these equipments and machinery was Rs. 38,270 for loanee farmers, Rs. 26,582 for non-insured farmers and only Rs. 3,406 for non-loanee farmers (Fig-4.4). This variation in value is attributable to the fact that none of the household in non-loanee category in the state owned tractor. Tractors being the costly machinery, it accounted for 68.23 per cent of the total value of farm equipments in case of loanee farmers, and 68.97 per cent in case of non-insured farmers. Another reason for hand-operated equipments having such high value for non-loanee farmers was that out of the sample of 30 households, the only other asset

the sample owned was chaff cutter. Similar pattern of average value of farm equipment and machinery was followed by all three districts which can be seen from Annexure-9, 39, 69.

4.12 Farm Buildings

As evident from Table-4.10, in terms of residential buildings, the non-loanee farmers were better off than other two categories in the state. Per household value of residential buildings was Rs. 7,88,500 for non-loanee farmers, Rs. 6,74,955 for loanee farmers and the least of Rs. 5,37,833 for non-insured farmers. This was because pucca houses constituted the maximum proportion of 88.86 per cent for non-loanee farmers whereas for loanee farmers, it was 71.48 per cent and for non-insured farmers it was 60.42 per cent. Not much variation was seen in the proportion of kucha houses for the three categories. The share of value of kucha house was 5.06 per cent in loanee farmers, 6.68 per cent in non-loanee farmers and 7.69 per cent in non-insured farmers. Proportion of semi pucca houses was lowest for non-loanee farmers at just 4.46 per cent in comparison to 23.46 per cent for loanee farmers and 31.89 per cent for non-insured farmers.

Fig-4.5: Average Value of Buildings on Sampled Farms (Rs/farm)



Per household value of cattle shed was highest for loanee farmers (Rs. 58,044), followed by non-loanee farmers (Rs. 40,500), and it was lowest for non-insured farmers (Rs. 38,833). Furthermore, for loanee farmers and non-Insured farmers, pucca cattle sheds constituted largest proportion of 52.16 per cent and 47.63 per cent, respectively. In case of non-loanee farmers kucha cattle shed constituted largest share of 55.56 per cent of total value of cattle shed.

Table-4.10: Farm Buildings Owned by Sampled Households in the State**(% of Total)**

Particulars	Insured farmers		Non- insured farmers
	Loanee	Non- loanee	
Residential Buildings			
Kucha	5.06	6.68	7.69
Pucca	71.48	88.86	60.42
Semi- Pucca	23.46	4.46	31.89
Total	100.00	100.00	100.00
Value in Rs./HH	674955	788500	537833
Cattle Sheds			
Kucha	28.31	55.56	26.18
Pucca	52.16	32.92	47.63
Semi- Pucca	19.53	11.52	26.18
Total	100.00	100.00	100.00
Value in Rs./HH	58044	40500	38833
Storage/Shops			
Kucha	0	0	0
Pucca	100.00	100.00	67.50
Semi- Pucca	0	0	32.50
Total	100.00	100.00	100.00
Value in Rs./HH	9111	5000	6667

Rs./HH: Rupees Per Household.

The value of pucca storage/shops accounted to 100 per cent of the value, whereas, for non-insured farmers it was 67.50 per cent and the rest, i.e., 32.50 per cent was the semi-pucca storage and shops.

Fig-4.5 shows that per household average value of buildings for loanee category was Rs. 742111, for non-loanee and non-insured categories, it was Rs. 834000 and Rs. 583333 respectively.

District-wise analyses indicates that majority of sample households have pucca residential house in all three districts. In case of cattle shed, there is wide disparity among all three categories of sample whereas majority of sample households have owned both kucha and semi-pucca cattle sheds, respectively. In term of storage/shops, very small proportion of sample households owned this type of facilities (Annexure-12, 42, 72).

4.13 Summing up

Average land holding and total uncultivated area was higher in non-loanee insured category. The total average area operated was higher for loanee insured category. The area under irrigation was

relatively higher among non-insured farmers. Maize, tomato and paddy were the major kharif crops, whereas highest area was recorded under maize crop. Gross cropped area under maize was highest on non-insured farmers. Regarding Rabi crops, wheat, vegetables and barley were important crops. Highest area was occupied by wheat crop. Gross cropped area was highest for wheat for non-loanee insured farmers. Gross cropped area of all crops was highest in loanee insured category farmers in the state. Cropping intensity was higher among insured farmers as compared to non-insured farmers. Per farm production of maize and wheat crops was high among all three categories. Only about 10 per cent of sample households have sources of irrigation. *Kuhl* (gravity water channel) is the major sources of irrigation, followed by bore well and dug well. Irrigation through water tank was found only in case of loanee farmers.

Cows were the main livestock owned by the sampled farmers. Only loanee farmers have poultry in the state. Per household livestock owned was highest for non-insured farmers. Districts scenario represents that Per household livestock was mostly possessed by low uptake district, Shimla. Per household value of total livestock was highest in case of non-insured farmers in the state and among districts, for middle uptake district, Solan. Per farm number and value of total equipments and machinery was highest among loanee insured category farmer in the state. Out of total equipments and machinery, farmers mostly owned hand operated implements. Tractor was the most expensive equipment and hand operated implements were the cheapest. Per household value of residential buildings was higher among insured non-loanee category. Per household value of cattle sheds and storage/shops was highest among insured loanee farmers.

Chapter-5

INSURANCE BEHAVIOUR

The insurance behaviour of the insured farmers in terms of insurance detail and information dissemination system of PMFBY, executing agency-wise insurance details of PMFBY and crop-wise details of event of losses covered under the scheme is analysed and presented in this chapter. The analyses regarding insured farmer's views about the performance of PMFBY and scheme's awareness among control group of the state are also presented in this chapter.

5.1 Insurance Details of PMFBY

The analyses regarding insurance coverage of sampled farmers like loanee and non-loanee are presented in Table-5.1. As per table, 31.11 per cent of loanee farmers and 33.33 per cent of non-loanee farmers were found insured under the previous scheme of *Rashtriya Krishi Bima Yojana*. All sample farms of loanee and non-loanee group were found insured under *Pradhan Mantri Fasal Bima Yojana*.

Table-5.1: Insurance Details of Sampled Farmers in the State

(all figures in %)

Particulars	Insured farmers	
	Loanee	Non- loanee
Insured Under RKBV	31.11	33.33
Insured Under PMFBY	100.00	100.00
Would opt for insurance even if optional	48.88	6.66

When the Loanee farmers were asked whether they would opt for PMFBY, if it was optional, 48.88 per cent of the farmers said yes. District-wise insurance details of PMFBY have been presented in Annexure-20, 50, 80, the analyses can be seen from mentioned annexure.

5.2 Information Dissemination System of PMFBY

This part of analyses elaborates the information dissemination system of PMFBY in the state. Here, the insured farmers mentioned different types of source of information about the scheme, viz; government awareness programme, insurance company/agent, *panchayat* representatives, other villagers and other source of information, respectively.

Table-5.2: Medium of Information about PMFBY of Insured Farmers in the State
(% of Total)

Particulars	Insured farmers	
	Loanee	Non-loanee
Government awareness programme	66.67	66.67
Insurance Company/Agent	3.33	20.00
<i>Panchayat</i>	7.78	10.00
Other villagers	0	0
Other	4.44	0
Indifferent to scheme	17.78	3.33
Total	100	100

As evident from Table-5.2, government awareness programs informed 66.67 per cent of both loanee and non-loanee farmers each. This implies that the highest information spread is from the government awareness programs on television, radio, news papers etc in the state, as well as, in all three districts (Annexure-21, 51, 81). Insurance companies/ agents as medium of information were considerably less in case of loanee farmers as only 3.33 per cent farmers were informed compared to non-loanee farmers where 20 per cent of the farmers were covered. *Panchayat* representatives informed 7.78 per cent of the loanee farmers and 10 per cent of the non-loanee farmers. Absolutely no information was spread through other villagers. Other sources like banks, etc., informed 4.44 per cent of loanee farmers, but no information obtained by non-loanee farmers from this source. 17.78 per cent of the loanee farmers were completely unaware of the PMFBY scheme despite having the mandatory insurance because of the KCC, whereas, 3.33 per cent of non-loanee farmers reported of being unaware of the scheme.

5.3 Executing Agency-wise Insurance Details of PMFBY

This part of analysis is devoted to understand the crop-wise insurance detail of farmers where the farmers were registered for their crop insurance from different executing agencies, like commercial banks, co-operative banks/societies, insurance companies, as well as, agriculture department.

Insurance details of commercial banks in the state can be seen in Table-5.3. Here it can be seen that for loanee farmers, majority of cases of crop insurance were registered under maize as individual crop (35) and maize+wheat combined (37). 8 cases were registered for wheat and no insurance was done by the commercial banks for the sampled farmers in the state for paddy. On the other hand, for non-loanee farmers, 7 insurance cases were registered under maize and

maize+wheat each. No insurance coverage was for wheat, and 2 cases were registered under paddy. For loanee and non-loanee categories, highest premium per household was paid in cases of insurance under combined insurance of maize+wheat crops (Rs. 233 and Rs. 467 respectively). For loanee farmers total loss per household was highest among maize crop insurance cases (Rs. 14480) whereas for non-loanee farmers it was highest for maize+wheat insurance cases (Rs. 35257). For loanee farmers compensation was secured only in case of maize crop which turned out to be Rs. 2528 per household whereas for non-loanee farmers maize crop secured a compensation of Rs. 3933 per household and for paddy it was Rs. 1988 per household.

Table-5.3: Insurance Details of Commercial Banks in the State

				Rs. /HH
Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	35	191.19	14480.00	2528.00
Paddy	0	0	0	0
Wheat	8	211.13	10937.50	0
Maize +Wheat	37	233.31	14114.86	0
Non- loanee				
Maize	7	240.00	11042.86	3933.43
Paddy	2	60	4500.00	1988.00
Wheat	0	0	0	0
Maize +Wheat	7	467.43	35257.14	0

/HH: Per Household.

District-wise analysis (Annexure-22, 52, 82) of insurance details of commercial banks depicts that for loanee farmers in high and low uptake districts of Hamirpur and Shimla, the highest insurance cases were registered under maize+wheat crops (23 and 14 respectively), whereas, for middle uptake district of Solan, insurance cases were registered only for maize crop (24). Out of all the crops in all three districts, highest premium was for maize+wheat crops in low uptake district (Rs. 134 per household) also the total loss was highest in this district for maize crop (Rs. 19875). For non-loanee farmers, highest insurance cases were registered for maize crop in middle uptake district. Premium was highest for maize+wheat in high uptake district (Rs. 674 per household). Total loss was highest in low uptake district for maize+wheat crops (Rs. 50375 per household). And lastly the highest compensation received was for maize crop in middle uptake district (Rs. 4589 per household).

Therefore, it can be concluded that out of all crop insurance cases registered in the state of the sampled households, maximum were under the commercial banks. Also, maize crop

individually and along with wheat crop was the highest insured crop in the state and the three districts individually.

Table-5.4: Insurance Details of Co-operative Banks/Societies in the State

				Rs. /HH
Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	8	187.50	13175.00	2708.88
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	2	538.50	15750.00	0
Non- loanee				
Maize	1	177.00	8000.00	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

/HH: Per Household.

Table-5.4 presents the insurance details of co-operative banks/societies in the state. For loanee farmers under co-operative banks/ societies, only maize and maize+wheat crops registered insurance cases, 8 and 2, respectively. Premium was higher for maize+wheat of Rs. 538 per household as well as total loss of Rs. 15750 per household. Compensation was secured only for maize crop of just Rs. 2708 per household. For non-loanee farmers only one insurance case was registered for maize with Rs. 177 as premium amount and Rs. 8000 as total loss. No compensation was secured for this crop.

District-wise analysis shows that in case of loanee farmers highest insurance cases (6) were registered under maize crop for the middle uptake district of Solan. Total premium per household was highest for maize+wheat crops in low uptake district of Shimla (Rs. 538) and total loss was highest in the same district for maize crop of Rs. 16000 per household. For non-loanee farmers only one insurance case was registered for maize with Rs. 177 as premium amount and Rs. 8000 as total loss. No compensation was secured for this crop (see Annexure-23, 53, 83).

Hence, insurance through co-operative banks/societies channel the dominant crop was maize for both loanee and non-loanee farmers.

The instance of insurance under insurance agencies in the state is discussed in Table-5.5. Here for the sampled households in the state not even one loanee farmer was insured through insurance agencies. Primary reason for this being the fact that almost all loanee farmers were

compulsorily insured under PMFBY if they borrowed from the bank and so the only medium involved in loanee farmers insurance was the commercial or co-operative banks depending upon where the farmer took loan from. For non-loanee farmers 4 cases were registered for maize crop and 5 for wheat crop. Premium was higher for maize crop (Rs. 323 per household) but total loss was higher for wheat (Rs. 19400 per household). Compensation was secured only in case of maize crop (Rs. 510 per household).

Table-5.5: Insurance Details of Insurance Agencies in the State

				Rs. /HH
Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	4	323.25	11250.00	510.00
Paddy	0	0	0	0
Wheat	5	210.00	19400.00	0
Maize +Wheat	0	0	0	0

/HH: Per Household.

District-wise analysis (Annexure-24, 54, 84) shows that for non-loanee farmers 2 insurance cases were registered for maize crop in middle uptake district of Solan compared to 1 each in other two districts. Total premium was highest in high uptake district of Hamirpur (Rs. 576 per household). All cases of insurance for wheat crop were registered in low uptake district of Shimla. In all three districts highest total loss was incurred for wheat in low uptake district (Rs. 19400 per household).

Therefore, insurance agencies did not insure any of the loanee farmers in the entire state sample because all loanee farmers were compulsorily insured under PMFBY if they borrowed from the bank, and so the only medium involved in loanee farmers insurance was the commercial or co-operative banks depending upon where the farmer took loan from. Also for non loanee farmers, only maize and wheat crops were insured with wheat having one case higher than maize.

Insurance under Agriculture Department, no loanee farmers in the sample size got its insurance from here the reason being same as in case of insurance agencies (Table-5.6). For non-loanee farmers 2 cases were registered for maize crop and 2 for maize+wheat crops. Premium

was higher for maize crop (Rs. 126 per household) and total loss was higher for wheat crop (Rs. 18400 per household). No compensation was secured in any of these cases.

Table-5.6: Insurance Details of Agriculture Department in the State

				Rs. /HH
Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	2	126	8000	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	2	81	18400	0

/HH: Per Household.

The middle and low uptake districts (Solan and Shimla) saw no insurance cases in any crop under the agriculture department for loanee and non-loanee farmers. For non-loanee farmers only in high uptake district of Hamirpur, 2 insurance cases were registered for maize and maize+wheat crops each. Total premium was higher for maize crop (Rs. 126 per household) and total loss was higher for wheat crop (Rs. 18400 per household). No compensation was secured in any of these cases (see Annexure-25, 55, 85). Here as well the only crops insured were maize and maize+wheat.

5.4 Event of Losses of Crops Covered under PMFBY

Event of losses of crops implies the scenarios in which the crops get destroyed and the government has to pay the insurance sum (compensation) in return to the farmers for this loss. The causes for these losses as per PMFBY and the cases that were listed in the questionnaire are as follows:

1. Prevented sowing/planting due to deficit rainfall or adverse weather.
2. Yield loss due to drought, dry spells, pests and diseases etc.
3. Post harvest losses due to spoilage during storage.
4. Localizes calamities such as cyclones, landslides etc.

Apart from these four event of losses of crops, a major event was losses caused by wild animals such as boars, red monkeys, *langoors*, *neel gai*, peacocks etc. a greater part of the crop losses was caused due to animal menace in all three districts alike, yet this event was not covered

in the questionnaire as animal losses are not covered under the insurance scheme. Nevertheless losses caused due to wild animals were recorded, and its analysis is given in Tables-5.7, 5.8 and 5.9, respectively.

Table-5.7: Event of Losses for Maize Crop in the State

Particulars	Insured farmers	
	loanee	Non- loanee
Prevented Sowing/Planting	1.22	13.04
Yield Loss	50.00	47.83
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	48.78	39.13
Total	100	100

As evident from the previous section, maize alone and with wheat registered the highest number of insurance cases in the state. Naturally the losses were also high in these crops. The biggest cause of loss here for both loanee and non-loanee farmers was due to yield loss (comprising of 50% and 47.83% loss respectively) which was due to reasons like drought, dry spells, floods, pests and diseases of crops etc. Another big reason of loss was due to destruction caused by wild animals. Wild animals caused 48.78 per cent loss in loanee farmers group and 39.13 per cent loss in non-loanee farmers group (Table-5.7). Post harvest losses and localized calamities caused no affect on maize crop for the selected sampled households. Preventive sowing/planting caused the least of 1.22 per cent loss for loanee farmers and 13.04 per cent loss for non-loanee farmers in the state.

For loanee farmers in high uptake district of Hamirpur losses due to yield loss (61.54%) were relatively higher, in middle uptake district of Solan and low uptake district of Shimla due to destruction by wild animals (50% and 57.69%). For non-loanee farmers in high uptake district, major loss was caused due to destruction by wild animals. In middle uptake district, however, no loss was caused by wild animals for the sampled farmers, and major loss was due to yield loss (87.50%). In low uptake district, just like loanee farmers major loss (60%) for non-loanee farmers was also caused by wild animals along with 40 per cent loss caused due to prevented sowing/planting.

Event of losses for paddy crop in the State are presented in Table-5.8. No case of insurance was registered for paddy crop for all the sampled loanee farmers and for non-loanee

farmers 100 per cent loss was caused due to yield losses. As per district wise analysis (Annexure-27, 57, 87) no cases of insurance were registered for paddy crop in high and low uptake districts of Hamirpur and Shimla and hence as evident from analysis all the loss was caused in middle uptake district of Solan for non-loanee farmers due to yield loss.

Table-5.8: Event of Losses for Paddy Crop in the State

(% of Total)

Particulars	Insured farmers	
	Loanee	Non- loanee
Prevented Sowing/Planting	0	0
Yield Loss	0	100.00
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	0	0
Total	0	100

The state analysis of event of losses for wheat crop is given in Table-5.9. A loss for loanee farmers was caused due to yield loss (57.46%), whereas, in case of non-loanee farmers it was caused due to destruction by wild animals (50%). For loanee farmers loss due to prevented sowing/planting and destruction by wild animals was the same (21.27% each). Post harvest losses or localized calamities caused no apparent loss for either the loanee or non-loanee farmers. For non-loanee farmers, yield loss also caused nearly half of the losses (42.86%) and rest of the loss (7.14%) was caused due to prevented sowing/planting.

Table-5.9: Event of Losses for Wheat Crop in the State

(% of Total)

Particulars	Insured farmers	
	Loanee	Non- loanee
Prevented Sowing/Planting	21.27	7.14
Yield Loss	57.46	42.86
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	21.27	50.00
Total	100	100

In (Annexure-28, 58, 88) high uptake district of Hamirpur, most of the loss was caused due to yield loss for loanee farmers (77.78%), and least due to prevented sowing/planting (3.70%). Rest of the loss was caused by wild animals (18.52%), whereas, for non-loanee farmers entire loss was caused due to loss of yield. Among three districts, middle uptake district saw no insurance of wheat crop; therefore, no losses were recorded under this scenario. In low uptake

district of Shimla, for loanee farmers major losses were caused due to prevented sowing/planting (45%), followed by yield loss (30%) and destruction by wild animals (25%) whereas for the non-loanee farmers in this district destruction by wild animals caused maximum loss (77.78%). Losses due to prevented sowing/planting and yield loss were the same in low uptake district (11.11% each).

In all three crops i.e. maize, paddy and wheat crops, the only substantial causes of loss were yield loss and destruction by wild animals in case of all sampled farmers under study. Post harvest losses and localized calamities had no affect on any crop in either of the districts. Prevented sowing/planting had the least affect in terms of loss for the three crops in the state as well as the three districts.

5.5 Farmers Response Regarding Performance of PMFBY

This part of analyses reflects the loanee and non-loanee farmers responses regarding different aspects of PMFBY such as insurance experiences with scheme, medium of information about their individual losses, time-lag between information about losses, CCEs (Crop Cutting Experiments) conducted at individual as well as village level and *panchayat* involvements in the PMFBY. This analyses have also been reflected the control group (non-insured) farmers views regarding awareness about this particular scheme as well as their main reasons for not opting the scheme.

Table- 5.10: Insured Farmers Experience with PMFBY in the State (% of Total)

Particulars	Insured farmers							
	Loanee				Non- loanee			
	High	Middle	Low	State	High	Middle	Low	State
Better than Earlier Scheme	40.00	50.00	46.67	45.56	50.00	40.00	50.00	46.67
Worse than Earlier Scheme	23.33	6.67	6.67	12.22	30.00	10.00	0	13.33
Same as any of the Earlier Scheme	23.33	13.33	13.33	16.67	10.00	20.00	10.00	13.33
Don't Know	3.34	0	10.00	4.44	0	10.00	10.00	6.67
Can't Say	10.00	30.00	23.33	21.11	10.00	20.00	30.00	20.00
Total	100	100	100	100	100	100	100	100

The analyses regarding insured farmers experience with the scheme has been presented by Table-5.10, which indicated that out of total loanee insured farmers in the state 45.56 per cent

farmers responded the PMFBY is better than earlier insurance scheme, followed by farmers who have no opinion about this particular aspect, who have responded the scheme is worse than earlier scheme and those who have responded the particular scheme is same as any of the earlier scheme, which were calculated 21.11 per cent, 12.22 Per cent and 16.67 per cent respectively. It is also observed that only 4.44 per cent loanee farmers have no knowledge or any idea of judgment about this particular scheme. In case of non-loanee farmers, 46.67 per cent farmers viewed that the PMFBY is better than earlier scheme, and it is followed by those who have no opinion, who responded that the scheme is worse than or same as any of the earlier scheme and who have no knowledge about this aspect, respectively. Thus, it can be concluded that majority of insured loanee as well as non-loanee farmers responded that the PMFBY is better than earlier insurance schemes; however, the percentage of non-loanee farmers is higher than loanee farmers about this particular aspect of the scheme.

District-wise analyses of farmers experience with PMFBY shows same results as the state about this aspect. In case of loanee farmers, the percentage is higher for middle uptake district Solan rather than other two districts. But in case of non-loanee farmers, the percentage is higher for each high or low uptake districts (Hamirpur and Shimla) rather than middle uptake district. So, finally it can be concluded that majority of farmers reported that the scheme is better than earlier scheme.

Table-5.11: Insured Farmers Agency of Information about Individual Loss in the State
(% of Total)

Particulars	Insured farmers							
	Loanee				Non- loanee			
	High	Middle	Low	State	High	Middle	Low	State
Farmers Informed to concerned authority	66.67	56.67	70.00	64.44	40.00	30.00	70.00	46.67
Agency/Authority of Information								
Directly to Insurance Company	0	0	19.05	6.90	0	0	42.86	21.43
Concerned Bank	20.00	23.53	19.05	20.69	0	0	0	0
Local Government Official	80.00	76.47	61.90	72.41	75.00	100.00	57.14	71.43
Toll-Free Number	0	0	0	0	25.00	0	0	7.14
KVK Officers	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0
Total	100	100	100	100	100	100	100	100

It is evident from Table-5.12 that out of total insured loanee and non-loanee farmers, 64.44 per cent and 46.67 per cent farmers have directly informed to concerned authority about their individual losses of crop. Insured farmers have mentioned different types of information agencies/authorities where they have directly informed about their losses, viz; insurance company, concerned bank, local government official, toll free number and KVK officers. The state scenario of loanee farmers indicated that, majority of (72.41%) farmers informed about their individual losses to local government official and it is followed by those farmers who directly informed to concerned bank (20.69%) and insurance company (6.90%). But there was not even a single farmer who informed about the individual losses to KVK officers or with the help of toll free number. Regarding non-loanee farmers, majority of 71.43 per cent farmers directly informed to local government official and it is followed by those who have directly informed to insurance company (21.43%) and with the help of toll free number (7.14%). But there was absence of those non-loanee farmers who directly informed about their losses to concerned bank as well as KVK officers. Thus, it can be concluded that the local government official (Agriculture Department) was the main authority/agency of information about individual losses for both loanee and non-loanee insured farmers. The proportion of loanee farmers was higher than that of non-loanee farmers regarding this aspect. Therefore, loanee farmers mostly informed about their losses to this particular authority rather than non-loanee farmers.

Table-5.12: Time Taken to Inform the Agency about Individual Loss in the State
(% of Total)

Particulars	Insured farmers							
	Loanee				Non-loanee			
	High	Middle	Low	State	High	Middle	Low	State
Within 48 Hours	50.00	70.59	66.67	62.07	25.00	33.33	85.71	57.14
Within 15 Days	10.00	11.76	23.81	15.52	50.00	66.67	14.29	35.72
Within 1 Month	10.00	11.76	4.76	8.62	0	0	0	0
Within 3 Months	30.00	5.89	4.76	13.79	25.00	0	0	7.14
Total	100	100	100	100	100	100	100	100

The same pattern of responses also repeated in all three districts of the state. In case of loanee farmers, high uptake district Hamirpur has got higher percentage regarding this aspect as compared to other two districts but in case of non-loanee farmers, middle uptake district Solan has got higher percentage as compared to other two districts. Further, it is observed that in

district Solan, all non-loanee farmers have informed about their losses to local government official. Thus, it can be concluded that the local government official was the major authority of information about individual losses for both insured farmers in all sampled districts.

Under PMFBY insured farmers have informed about their individual loss to different types of authorities. There is time lag for informing the authority about their losses which can be a period of within 48 hours, within 15 days, within 1 month and within 3 months. The higher time lag discourages the insured farmers, and can disturb their compensation of losses. The analysis pertaining to time lag between individual loss and its information to any authorities has been presented in Table-5.12 which indicates that majority of loanee and non-loanee farmers (62.07% and 57.14%) have informed to authority with in a period of 48 hours and this is followed by those insured farmers who have informed to authority within a period of 15 days, within 3 months and within 1 month, respectively. Therefore, it can be concluded that most of loanee and non-loanee farmers have informed about their losses to authority/agency within a time period of 48 hours, which indicates that the time taken to inform the agency about losses was more efficient in case of loanee farmers.

Regarding loanee farmers, this pattern was repeated in high, middle and low uptake districts Hamirpur, Solan and Shimla, whereas, in district Solan most of (70.59 per cent) farmers have informed to authoriry about individual loss within 48 hours rather than other districts. In case of non-loanee farmers, low uptake district Shimla followed same pattern of results but in district Hamirpur and Solan, majority of non-loanee farmers have informed to agency about their losses within a time period of 15 days. Thus, it can be concluded that low uptake district Shimla shows more efficient result about this aspect in case of loanee and non-loanee insured farmers.

Table-5.13: Insured Farmers Views Regarding CCEs Conducted by Agriculture Department in the State

(% of Total Sample)

Particulars	Insured farmers							
	Loanee				Non- loanee			
	High	Middle	Low	State	High	Middle	Low	State
CCEs Conducted on Individual Farm	13.33	16.67	30.00	20.00	20.00	20.00	30.00	30.43
CCEs Conducted in the Village	40.00	20.00	36.67	32.22	40.00	30.00	50.00	40.00

It is necessary to know whether insured farmers of PMFBY have any knowledge and awareness about Crop Cutting Experiments conducted by Agriculture department at individual, as well as, village level for the purpose of yield assessment and loss/compensation verification of crops and find the system conducted, or not. There are different types of views regarding this issue.

It was observed (Table-5.13) that, out of total loanee farmers, only 20 per cent farmers were satisfied with the view of CCEs conducted on individual farm. In case of total non-loanee farmers, 30.43 per cent farmers responded that the CCEs conducted on their individual farm. There were only 32.22 per cent and 40.00 per cent loanee and non-loanee farmers who have responded that the CCEs conducted in their villages. Therefore, it can be concluded that very small proportion of both insured farmers have been covered under CCEs system of PMFBY. About this CCEs aspect of the scheme conducted at individual as well as village level, non-loanee farmers were more competent than loanee farmers.

District-wise analyses revealed that in case of loanee and non-loanee farmers, low uptake district Shimla was more efficient with the view of CCEs conducted on individual farm. Similarly, non-loanee farmers of district Shimla were mostly aware about the CCEs conducted in their villages, but loanee farmers of high uptake district Hamirpur were mostly aware about the CCEs conducted in their villages.

Table- 5.14: Insured Farmers Views on Role Played by *Panchayat* in PMFBY in the State (% of Total)

Particulars	Insured farmers							
	Loanee				Non-loanee			
	High	Middle	Low	State	High	Middle	Low	State
Farmers agreeing to role of <i>Panchayat</i>	46.67	30.00	23.33	33.33	40.00	20.00	0	20.00
Role Played								
Providing Information	42.86	0	14.29	23.33	0	0	0	0
Organize Awareness camps	57.14	77.78	71.42	66.67	75.00	100.00	0	83.33
Helped for filling Insurance form	0	22.22	14.29	10.00	25.00	0	0	16.67
Total	100	100	100	100	100	100	100	100

The analyses regarding insured farmers views on role played by *panchayat* in PMFBY in the state have been presented in Table-5.14. It was found that out of total sample, only 33 per

cent, and 20 per cent of loanee farmers and non-loanee farmers, respectively agreed to a positive role of *panchayat* in PMFBY. Insured farmers mentioned three aspects about *panchayat* involvement under PMFBY in the state viz; providing information, organize awareness camps, and helped for filling insurance form. In the state, loanee insured farmers expressed more efficient responses about the role of *panchayat* in PMFBY. Out of total, 33 per cent of loanee farmers who agreed to a *panchayat* involvement in the scheme, majority of (66.67%) farmers viewed that *panchayats* have organized awareness camps regarding whole package of government schemes included PMFBY time to time, and it is followed by those percentages of farmers who have responded that *panchayat pradhan*/members also provided information regarding the scheme (23%) and helped for filling insurance form (10%). In case of non-loanee farmers, out of total agreed farmers, majority of (83%) farmers responded that the *panchayats* have organized awareness camps based on the particular scheme, and it is followed by those who have responded that *panchayat* helped them for filling insurance form. Thus, very small proportion of insured farmers agreed to a positive role of *panchayat* in PMFBY. From which majority of they have responded that *panchayats* played important role in the part of organize awareness camps regarding PMFBY in the state.

District-wise analyses indicated that in case of loanee and non-loanee farmers, high uptake district Hamirpur shows more efficient responses regarding role of *panchayat* in the scheme. In all sampled districts, most important role of *panchayat* in the scheme was organized awareness camps whereas both insured farmers of middle uptake district Solan were mostly agreed with this view. But non-loanee farmers of low uptake district Shimla did not agree to role of *panchayat* in PMFBY.

Table-5.15: Awareness of the Control Group about PMFBY

Particulars	High	Middle	Low	State
Aware about PMFBY	7	9	8	24
Source of Information (%)				
Electronic Media/ News Paper	85.7	66.7	100.0	83.3
Agriculture Department	100.0	66.7	87.5	83.3
<i>Panchayat</i>	0	22.2	0	8.3
Total	100.0	100.0	100.0	100.0

It is necessary to check whether non-insured farmers (control group) have any knowledge or awareness about PMFBY, and reason for not opting the insurance scheme. As evident from

Table-5.15, out of total sample (30 farmers) in the state, 24 non-insured farmers were aware about PMFBY. Electronic media/news paper and Agriculture Department were the main sources of information considered by 83.3 per cent farmers. Out of total, only 8.3 per cent farmers considered *panchayat* was also their source of information regarding the scheme. This implies that the highest information spread is from the electronic media/news paper and Agriculture Department.

District-wise analyses show that the aware proportion of control group farmers about PMFBY was high in middle uptake district Solan rather than other districts. In high uptake district Hamirpur, Agriculture Department was the main source of information about scheme. In case of Middle uptake district each electronic media/news paper and agriculture department was the main source of information but regarding low uptake district Shimla, electronic media/news paper was the main source of information about PMFBY for control group.

Table-5.16: Reasons for Not Opting PMFBY by the Control Group

(all figures in %)

Particulars	High	Medium	Low	State
Lack of Awareness	14.29	55.56	50.00	41.67
Cumbersome Procedure/ Lack of Co-operation	57.13	0	37.50	29.16
Animal Losses not Covered	14.29	22.22	12.50	16.66
Lack of willingness	14.29	0	0	4.17
Not Beneficial	0	11.11	0	4.17
Less Compensation Secured	0	11.11	0	4.17
Total	100.00	100.00	100.00	100.00

The results regarding reasons for not opting PMFBY by the Control Group have been presented in Table-5.16. There were many reasons which were articulated by control group like; lack of awareness, cumbersome procedure/ lack of co-operation, animal losses not covered lack of willingness, not beneficial and less compensation secured respectively.

It was observed that out of total non-insured farmers in the state, 41.67 per cent farmers did not opt for PMFBY due to lack of awareness, 29.16 per cent farmers did not opt for this scheme because of its cumbersome procedure/lack of co-operation of excuting agencies, about 17 per cent farmers pointed out that the scheme did not cover animal losses, therefore, they did not opt for this scheme. Remaining each 4.17 per cent non-insured farmers were reported that due to the reasons of their lack of willingness, the scheme is not beneficial and less compensation secured for their losses. Thus, it can be concluded that the lack of awareness was

the main hinderance, and near about half of the non-insured farmers in the state reported this to be a major reason for not opting PMFBY.

Among individual districts also, the lack of awareness was the main problem, and more than half of the respondents in middle uptake and low uptake districts, Solan and Shimla, reported this to be a major reason for not opting the scheme. But in high uptake district Hamirpur, majority of non-insured farmers reported that the cumbersome procedure/lack of co-operation was the main reason for not opting this particular scheme (PMFBY).

5.6 Summing up

About 31 per cent of loanee farmers and 33 per cent of non-loanee farmers were insured under the previous crop insurance scheme, and all sample farmers of loanee and non-loanee group were insured under PMFBY. Government awareness programs were major medium of information about the scheme. Loanee farmers were automatically insured for crops from commercial and cooperative banks/societies and non-loanee farmers registered their crop insurance from banks, insurance companies and agriculture department. Majority of cases of crop insurance were registered under maize+wheat combined and maize as individual crop. Premium and losses were also high among maize and wheat crops.

The yield was the biggest cause of losses for maize, paddy and wheat crops. Another reason of loss was due to destruction caused by wild animals. Post harvest losses and localized calamities had no affect on any crop in either of the districts. Prevented sowing/planting had the least affect in terms of loss.

Majority of loanee and non-loanee farmers responded that the PMFBY is better than earlier insurance schemes. The local government official (Agriculture Department) was the main authority/agency of information about individual losses for both loanee and non-loanee insured farmers. Most of loanee and non-loanee farmers of the state have informed about their losses to particular authority/agency within a time period of 48 hours. Among three districts, low uptake district Shimla shows more efficient result about this aspect in case of loanee and non-loanee insured farmers.

It was reported that small number of farmers have been covered under CCEs system of PMFBY. Maximum cases of CCEs were conducted in low uptake district Shimla. Non-loanee farmers of district Shimla and loanee farmers of high uptake district Hamirpur were mostly aware about the CCEs conducted in their villages. A very small proportion of insured farmers

agreed to a positive role of *panchayat* in PMFBY. Out of total sample (30 farmers) 24 non-insured farmers were aware about PMFBY. Highest information spread is from the electronic media/news paper and agriculture department. Lack of awareness about the scheme among farmers was the main reason for not opting PMFBY.

Chapter-6

STAKEHOLDERS PERSPECTIVES AND CONSTRAINTS

In the present study, the stakeholders' responses regarding perspective and constraints in implementation of PMFBY have been analyzed. These include issues like coordination in implementing agencies, implementation of programme and distribution of claims. Suggestions made by different stakeholders were also recorded. The following text presents the outcome of the study in this respect.

6.1 Insurance Companies Perspective

The responses of insurance companies regarding PMFBY were recorded through meetings with the officials involved in this scheme and the following perspective was gathered. Lack of coordination in different branches within the insurance companies, as well as, with the agriculture departments was the main problem reported. The insurance companies are not meeting the targets of getting non-loanee farmers insured despite the guidelines from the head office and the government was another constraints. Lack of communication with the agriculture department in case of sharing of data and other records of insurance cases was the constraint in implementation of scheme. The reason given for this is that data is not properly prepared at the ground level by the *Patwaris* and the same improper data is given to the insurance agencies therefore, the Insurance agencies are unable to provide timely and complete data to the Centre/Directorate of Agriculture. Further, there is poor internet co-ordination between the Centre and the State, which causes delay in updating the information on the web. Insurance agencies acknowledge that there should be complete transparency in the information published online, but no substantial measures have been taken for it so far.

Another major problem is that the farmers are not aware of the PMFBY scheme or the claim disbursements to them. This creates a problem for the insurance agencies in convincing the farmers for crop insurance. Lack of interest and initiative on the part of certain insurance officers also leads to inefficient implementation of the scheme. On speaking with deputy director of Agriculture office, Lahaul, the reasons given by him for this laid back approach were like the farmers in the area were not interested in getting crop insurance done. There was lack of staff in the office, elections were coming up and so the officials were busy with election related work and so could not pay attention to the farmers. As crop was already harvested for the season and so there was no need for crop insurance and lastly risks faced by farmers in this district are not

covered under PMFBY. Thus farmers are not willing to pay the premium for insurance. Hence, the officer advocated that not insuring the farmers was the only alternative, therefore, leading to inefficiency. Also according to the insurance agencies farmer's insurance is direct responsibility of the banks but there is lack of interest on their part. In other words, the responsibility of crop insurance is shirked on bank's shoulders. Sometimes banks would not insure even the loanee farmer, at other times when and if the banks are keen on farmer's wellbeing, they are rendered helpless as farmers are not willing to pay premium. Even if the insurance agencies are willing to do their work, one of the momentous problems is that no proper records/*Girdwaris* are maintained of the land details of the farmers or the crops. Only a verbal record of harvests is kept by the *Panchayat Pradhans* or the *Patwaris*. Proper records of harvests in every season should be maintained by the Bank Officers and the *Patwaris* but corruption is prevalent at *Kanungo* and *Patwari* level as they refuse to document any information until they are bribed for it. Hence, process of insuring the crop or conducting loss assessment procedure is hindered. Insurance agencies also claim that farmers are refusing insurance because there is no crop produce and some farmers who are inclined to get insurance wrongly quote apple crop on barren land to take loan from the banks as apple crop is entitled to more loans and claims. This fraudulent practice makes it difficult to find farmers growing such crops as entitled for PMFBY.

Officer in the head office of an insurance company quoted, "*Pradhan Mantri Suraksha Bima Yojana* can be same in the whole country because humans and the risks they face are same everywhere, but crop production is different depending upon the geography, topography, climate etc. PMFBY is a uniform scheme all over India; however, it should be executed differently depending upon different zones, climate and state." According to him, specific problem faced by people in Kinnaur and Lahaul is that the quality of seeds provided to them by the government is very poor. People in these areas sow the seeds but crops fail to grow. And so more than insurance, provision of better seeds, fertilizers and inputs to the farmers should be government's priority.

6.2 Farmers Perspective

Lack of awareness about crop insurance was main problem among farmers. Loanee farmers are automatically insured under PMFBY, despite this, even the farmers with *Kisan Credit Card* (KCC) were not aware about them being insured because the banks did not inform them about it. Also spread of awareness by agriculture departments and insurance companies was nil. Farmers

are not aware of the automatic premium deduction from their KCC account for PMFBY. Most farmers were not acquainted with the process of Crop Cutting Experiments (CCEs) as no officials from Agriculture Department visited their fields and no information was provided to them. Farmers also had no knowledge of the awareness generation camps organized by state agriculture department. The cooperation from banks was meager despite willingness of non-loanee farmers to get crops insured under PMFBY. Even if insurance was done by the banks, then, farmers complained that claims were not being deposited in their accounts in the event of losses.

Major risk to crops in as reported by sample farmers is from wild animals like boars, monkeys and peacocks etc. These animals cause most of the crop losses but this risk is not covered under PMFBY, and so the farmers find no requirement of insurance. In the absence of irrigation facilities the state, the loss from droughts and deficient rain is way more than the given compensation under PMFBY. Agriculture is still mainly dependent on rainfall therefore hailstorms and erratic rains cause bulk crop losses. Also farmers claim that seeds provided to them by the department of agriculture are of inferior quality and the supply is not timely. Once the crop is harvested, farmers do not get satisfactory price for their produce in the *mandis* as crops grown from inferior quality seeds are also inferior. Apart from this the middlemen exploit farmers by taking most of the profits and not providing correct remuneration to the farmer for his produce. According to farmers, PDS (public distribution system) has led to drastic reduction in agriculture activities as the inducement for farming has reduced due to cheap availability of foodgrains.

6.3 Departments of Agriculture Perspective

Similar questions were asked from the officials of Agriculture Department in all three districts, and their responses were as follows:

Hamirpur is the district with the highest uptake in *Pradhan Mantri Fasal Bima Yojana* with highest proportion of farmers insured under the scheme. Here the government officials' interviews were conducted on the 28th and the 29th of November 2017. As per the government officials, crops notified for the year 2016-17 were maize and paddy in kharif season and wheat in Rabi season. Notification for the crops comes from the Directorate of Agriculture Shimla. The Insurance Unit (IU) in each district is tehsil and sub-tehsil. The District Level Joint Committee consists of three members i.e. District Agriculture Officer (DAO), *Kanungo* from revenue

department and one member from insurance company. The District Level Technical Committee DLTC is headed by the District Commissioner (DC) and also consists of one lead bank representative and one insurance company representative. For district Hamirpur, Punjab National Bank (PNB) was the lead bank. Quarterly meetings are held with the lead bank. The agenda of the meeting is to see what problems the banks are facing. According to the officials about 70 per cent farmers are aware of PMFBY. Aware farmers in case of loss inform officials. Camps are organized for the farmers where information is provided about various departmental schemes and PMFBY is included in it. In 2016-17 more than 400 camps were organized both big and small. Block officers, SMS (Subject Matter Specialist), ADO (Agriculture Development Officer), AEO (Agriculture Extension Officer) and Insurance company representative are present in these camps. Blocks get targets to generate awareness among farmers. Every officer gets a target to get at least 15-20 farmers insured in a season. Camps are organized at *panchayat* level. People are called at the *Gram Panchayat* campus and are informed about the various governmental schemes including PMFBY. Due to these camps, number of non loanee farmers insured under PMFBY has increased significantly (from 255 to 7035) during 2016-17 year.

Farmer needs a crop sown certificate in order to get his crop insured under PMFBY. For this the *Patwari* certifies the cropped area and gives the crop sown certificate to the farmer. Premium for loanee farmers is automatically deducted from their *Kisan Credit Card* (KCC) account whereas for non-loanee farmers, premium is collected by the Agriculture Department and given to insurance companies along with the list of their names and other details. On decided date of harvest Crop Cutting Experiment (CCEs) takes place. People present during CCEs are the ADO, one official from the agriculture department, one farmer, *Kanungo* and *Patwari*. For Rabi 2017-18, digitization in CCEs is taking place. Digitization from Rabi 2018 will improve data quality as it will become impossible to cheat or tamper with data. Mobiles have been distributed to the officials and the training about using these is under process.

Solan was selected as the district with medium uptake of PMFBY. Officials' interviews in this district were conducted on 5th December 2017. These officials reveal that the last camp was organized on 29th September. According to the officials CCEs were likely to be digitized for Rabi 2018. Training regarding the same was due at the time of interview. The procedure for selecting the plot for CCEs is as follows; a random number is selected and given to the agriculture department by the central government. From the land record (*Girdwari*) of that place,

the last *Khasra* number is divided by this random number and the result number is then seen in the revenue records register. A plot of 10 x 2 hectares is selected from the land corresponding to this number. If no land corresponds to this number then the next land nearest to the number is selected. Yield is weighed, then dried, and weighed again, and then dried again and weighed again. The farmer whose field is selected for CCEs is given no compensation for it. The officials even claimed that in the camps recently set up by the agriculture department many training programs like how to use polyhouses and the like were provided.

Shimla was selected as the district with lowest uptake of PMFBY. Officials' interviews in this district were conducted on 14th and 15th of November 2017. The crops notified under PMFBY were maize and paddy for kharif season, and wheat and barley for rabi season. Procedure for selection of notified crops is through government notification. The government selects main crop which has maximum area under cultivation. The insured unit (IU) in Himachal Pradesh is a Tehsil. If the size of a Tehsil is small it is combined with other Tehsils. District Level Technical (+ monitoring) Committee (DLTC) consists of a member from the Directorate of Agriculture and one from insurance company. Crop notification for kharif 2016 was issued in the month of May but sometimes this process gets delayed. If farmers are not informed well in time, the notification is extended for some duration. According to the officials, many farmers are aware of the scheme but not willing to get insurance done, reason being low claims provision. Some farmers are not aware of the compulsory premium deduction from their bank accounts. Combined Camps are organized for spreading awareness about PMFBY and other issues of different schemes among the farmers. For provision of loan, farmer is considered eligible by the size of his land and different rates of interest are fixed for different sizes. For crops which are not notified, loans are provided but premium is not deducted for them. The Directorate of Agriculture did not come across any complaint about premium deduction on loans for non notified crops at the time of interview. The *Kanungos* from Revenue department and Agriculture Development Officers (ADO) with the help of primary workers conduct Crop Cutting Experiments (CCEs) in their areas. CCEs takes place in the presence of farmers or their representative but no bank officers are present. At the time of interview, no digitization had taken place for CCEs. In terms of losses, post harvest loss is covered up to 15 days and block wise assessment of loss is an active process. The government decides the loss assessment criterion. Insurance companies are guided to collect premium and data regarding the crops and bank details of the farmers and their

area insured. Non-loanee farmers usually give bank drafts of the premium amount which is collected by the SMS (Subject Matter Specialist) of the area and then provided to the concerned insurance company.

6.4 Issues and Challenges

Lack of maintaining of proper data of insured farmers under PMFBY is the major issues in planning in implementation of the scheme. The size of the clusters given to insurance companies (i.e. the districts whose farmers are to be covered under crop insurance) is too large, and their working becomes inefficient and difficult to scrutinize. Even the insurance units in every district or the *patwar* circles under each *patwari* are too big to be managed effectively. On part of the banks, they are not providing data about loanee farmers to the agriculture department therefore, the only records the agriculture departments have are of non-loanee farmers. Furthermore, there is a lot of variation in available data because some farmers get the insurance done by themselves and record of these farmers is not kept anywhere. Even if the instance of farmers insurance successfully takes place then the claim disbursement is less. Total claim amount is allotted to insurance agencies by the government but much less is given to the farmers and this is the biggest way farmers are exploited.

Process of claim disbursement is also very slow, for some farmers it takes a whole year for claim settlement and by that time next year's crops have already suffered losses. *Jamabandi* (family level ownership) gives names of many shareholders of the land but only one farmer is working on the land i.e. subdivision of land is not identified, thus creating problem of distribution of compensation. Actual cultivated land should be identified on the *Jamabandi* as well as the actual cultivator. Sometimes land shown in *Jamabandi* is uncultivated and crop insured is grown on some other land. *Patwari* is supposed to check the land and yield in every 6 months and maintain proper records but this responsibility is often shirked.

In all, the executing agency at lower level for this scheme is not systematic. During 2016-17 year only one block (Nadaun) in Hamirpur district got compensation for crop loss. Insurance company is misusing data of claim settlement to get more insurance cases from the area. No claims were given to farmers in kharif 2016 because yield data was recorded more than the threshold data and so the farmers who had gone through crop loss did not receive any compensation. For other seasons, claims were given as per CCEs but were not accurate as CCEs intrinsically suffer from many malpractices. For instance, CCE covers a large geographical area

which does not do justice to the farmer's losses, as the plot where CCEs is undertaken might have lesser loss compared to other farms in the same area. It was reported that many times the officers responsible for this experiment do not take their work seriously, and so accurate losses are not assessed. Agriculture and revenue departments are involved in yield assessment, but there is much inefficiency on part of the revenue department. Size of insurance units administered by revenue department is too large and unmanageable. Adding to it, no proper records about land or farm produce are maintained by the *Patwaris* causing difficulty to government in providing subsidy and support to farmers. Only verbal records are kept. Moreover, a *Patwari* is overburdened because he is allotted around 3 *Patwar* circles creating problem in maintaining records.

Other than the loanee farmers who are compulsorily insured under PMFBY, not much emphasis is laid on non-loanee farmers in terms of providing assistance in insurance procedure at the end of any authority. Groups and Committees set up for better functioning of PMFBY are often driven by political motives than a zest to benefit farmers, thus rendering to exploitation of farmers. The feeling of self-interest and nepotism before nationalism is prevalent among people, and so the benefits are constrained to a smaller section of farmers. Considering the risk factor, major risk to the crops in Himachal Pradesh is of wild animals and of less rain/drought which is not covered under PMFBY and so this scheme is not of much use to them. Although awareness among farmers is increasing about getting crop insurance but they are still not aware of what the scheme actually is. On the other hand farmers who are aware of the scheme are not interested due to reasons like: individual loss is not paid, destruction of crops by animals is the biggest risk which is not covered by PMFBY, farmers are not totally aware of how this scheme works rather wrongly interpret PMFBY as to be like a sure investment that if they pay say Rs. 50 then they will surely get Rs. 4000 in return without understanding that insurance only covers a loss, delay in claim disbursement, if loss of crop is small then the farmer fears loss of premium and cumbersome paperwork process to get insurance done.

6.5 Summing up

Stakeholder responses reveal that the scheme was not a great success in Himachal Pradesh. Insurance companies are facing trouble with improper data records of farmers land and harvest, lack of coordination among themselves and with the agriculture departments. Dearth of initiative and interest in some insurance offices along with less awareness among farmers about the

scheme makes it furthermore difficult for the insurance agencies to complete its targets. Protecting crops against wild animals is the big issue reported by the sampled farmers. Farmers are willing to learn about the scheme provided the banks and other authorities make it easy for them. Interest in agriculture activities is decreasing consistently due to lack of irrigation and heavy losses due to wild animals and draughts. Banks are relatively at ease with the whole insurance process as farmers borrow money from them and are compulsorily insured under PMFBY.

A grave problem is that no proper and sufficient records are maintained about farmers insurance or their land or the harvest. The insurance units in every district are too large to be managed efficiently. Insured farmers reported that the claim disbursement process is slow and the amount received by the farmers is often meager compared to their losses. The CCEs procedure and results are not correct. Non-loanee farmers are not entertained rather not much emphasis is laid on their insurance by the authorities. Even the Groups and Committees set up for better implementation of the scheme are driven by political motive, in officials there is a feeling of nepotism and self interest and because of all this welfare of needy farmers is compromised. Farmers more than anything want protection of their crops from wild animals. Having mentioned all this, the awareness level among farmers about the scheme is very low, and the ones who know about it are not interested or willing to get crop insurance as they find no utility for it due to less compensation, all losses not being covered and complicated procedure etc.

Chapter-7

MAJOR FINDINGS AND POLICY IMPLICATIONS

In the present chapter efforts have been made to summarise the whole study, to draw conclusions. The present chapters has been divided in to two parts viz, major findings and policy implications.

7.1 Major Findings

Following are the main findings of study:

- The state has conducted 212 CCEs for Maize crop during kharif season 2016-17 under PMFBY, out of which, 148 experiments were selected and 64 experiments were rejected by the implementing agencies. For Paddy crop, total 118 CCEs were planned by implementing agencies, out of which, only 78 experiments were conducted whereas 36 were selected and 42 experiments were rejected by the implementing agencies. During Rabi season, total 262 CCEs were planned for wheat crop under PMFBY but there is no complete list maintained by agriculture department about how many experiments were conducted for this crop.
- During rabi 2016-17 season, there were two executing agencies, Oriental Insurance Company and Agriculture Insurance Company, which covered and insured total 1,49,687 farmers for wheat and barley crop under this scheme. Out of which 92,303 were loanee farmers and 57,384 were non-loanee farmers. The coverage of total insured farmers was highest in district Mandi. The coverage of loanee and non-loanee farmers was highest in district Kangra and Mandi but least for district Shimla and Chamba. There was no claim provided under the scheme during this season.
- During kharif 2016-17 seasons, there were two executing agencies IFFCO-TOKIO and Agriculture Insurance Company to covered and insured total 1,10,878 farmers for maize and paddy crops under the scheme. The coverage of total insured loanee as well as non-loanee farmers was highest in district Kangra. The total claim amount was Rs. 57.43 lakhs only provided for district Solan of the state during Kharif season 2016-17.
- The OIC has not maintained proper data record of cluster-1, AIC has not maintained proper record of cluster-2 of rabi and kharif season due to its weak execution of monitoring system. Regarding IFFCO-TOKIO Agency, it has maintained proper record of data for cluster-1 during kharif season.

- The average household size was slightly higher in case of non-loanee and non-insured farmers. The average size of workers engaged in farming was also higher among non-loanee insured farmers. The literacy rate was higher among loanee farmers. Literacy was highest in high uptake district Hamirpur.
- It was found that majority of insured and non-insured farmers were in the age group of 16-60 years. It is observed that loanee farmers have better education qualification status. There is large disparity in gender qualification, among males, majority of persons were matriculate and among females, majority of them were only primary pass under both insured categories. Gender educational status of non-insured farmers was poorer than insured farmers. Thus loanee farmers have attained better educational status than other categories of sample farmers. Low uptake district (Shimla) has better educational status as compared to other districts.
- The loanee farmers had the highest proportion of males and females workers involved in agriculture. Middle uptake district of Solan had the highest percentage of workers engaged in agriculture. The workers engaged in wage labour were also highest for loanee category which was relatively higher in case of high uptake district of Hamirpur. Highest percentage of workers involved in service sector was in low uptake district of Shimla. Business and rural artisan works were male dominant activity in the state. The non-insured category had the highest percentage of workers involved in subsidiary occupation of agriculture. Business, rural artisan and service sector as subsidiary occupation have fewer workforces.
- The modern durables owned per household were highest in case of sampled loanee households. Total numbers of television were higher in case of non-insured households. The other modern durables like two wheelers, four wheelers and sewing machines each contributed less than 10 per cent of the total number in case of all three categories. Loanee farmers recorded highest value of four wheelers in the state.
- Service sector was the major source of income among all sampled households under study. Among three districts of the state, per household income was highest for low uptake district Shimla, here majority of workers were engaged in service sector. As compared to non-loanee and non-insured farmers, loanee farmers earned higher income from agriculture sector.

- The value of land accounted higher share among all assets, followed by value of buildings. Per household value of all assets was higher among non-insured farmers than that of other categories of farmers.
- Regarding credit structure of sample in the state, majority of insured and non-insured farmers obtained loan from commercial banks and then cooperative banks/societies. Per household loan amount as well as duration of loan was highest among non-loanee category of sample. Similarly, outstanding loan was relatively higher among non-loanee farmers and lesser in case of loanee farmers.
- The farmers borrowed money for purchase of agricultural inputs, farm equipments, livestock, household consumption and social obligation. The loan taken by loanee farmers was mostly spent on purchases of agriculture inputs, followed by household consumption, dairy animal, farm equipments and social obligation. In case of non-loanee and non-insured farmers it was mostly spent on household consumption followed by agriculture inputs, dairy animal and social obligations.
- The average land holding size was higher for non-loanee insured farmers; uncultivated area of land was also higher as this category of farms. The average area operated was higher for loanee insured farmers. The area under irrigation was relatively higher among non-insured farmers. Leasing system of land was almost absent among all the categories of sampled farmers.
- The cropping pattern of sample households indicates that maize, tomato and paddy were the major kharif crops. Highest area was recorded under maize crop and the gross cropped area under this crop was highest for non-insured farmers. In rabi season, wheat, vegetables and barley were important crops grown by the sampled farmers, whereas, highest area has been covered under wheat crop. Area under wheat crop was highest for non-loanee insured farmers as compared to non-insured farmers. Gross cropped area was highest on loanee insured farms in the state.
- The cropping intensity was comparatively higher among insured farmers as compared to non-insured farmers. Per farm production of maize crop was highest among non-insured farmers. In case of rabi crops, per farm production of wheat crop was highest among non-loanee insured farmers.

- About 10 per cent of sample households have some source of irrigation. The *kuhl* (gravity water channel) was the major source of irrigation, followed by bore well and dug well. The irrigation through water tank was found only in case of loanee farmers.
- Most of insured and non-insured farmers have cows. In case of poultry, only loanee farmers have poultry. Per household number of livestock was higher in case of non-insured farmers as compared to insured farmers. Per household value of total livestock was highest in case of non-insured farmers. The value of total livestock was highest for middle uptake district Solan.
- Per farm number and value of total equipments and machinery was highest among loanee insured sampled farmers. The value of tractor was lowest in total value among loanee and non-insured farmers.
- In terms of residential buildings, non-loanee farmers were better off than other categories of sampled farmers. Per household value of residential buildings was also higher among insured non-loanee farmers rather than non-insured farmers. In case of cattle sheds, loanee farmers owned good quality than others. Per household value of cattle sheds and storage/shops was highest among insured loanee farmers than non-insured farmers.
- 31 percent of loanee farmers and 33 per cent of non-loanee farmers were insured under the *Rashtriya Krishi Bima Yojana*. All the sample of loanee and non-loanee farmers was insured under *Pradhan Mantri Fasal Bima Yojana*. Government awareness programmes on television, radio, news papers etc. were the major medium of information about the PMFBY.
- Loanee farmers crops were automatically insured from commercial and cooperative banks/societies and non-loanee farmers have to register their crop for insurance in banks, insurance companies or agriculture department. Majority of loanee farmers were registered under maize+wheat combined (37 farmers) and maize as individual crop (35 farmers). Per household premium was highest for maize+wheat crop among loanee insured farmers and for maize crop among non-loanee farmers.
- Per household loss was highest for maize crop among both loanee and non-loanee farmers. Similarly, per household compensation was highest for maize crop among both insured farmers under commercial banks. Majority of loanee farmers automatically insured their crops under commercial banks rather than cooperative banks/societies.

Maize and wheat crops were the highest insured crops in the state and the three districts individually.

- The insurance details of co-operative banks/societies in the state elaborates that majority of loanee farmers registered their insurance for maize crop and it is followed by maize+wheat crop. But non-loanee farmers registered their insurance for maize crop only. Per household premium and loss was highest for maize+wheat crop among loanee category and per household compensation was secured only for maize crop among loanee category. Here, no compensation was secured under maize for insured non-loanee category. Middle uptake district Solan registered highest insurance cases of maize crop under executing agency. Per household premium/loss was highest in low uptake district of Shimla under maize+wheat crop but per household compensation was secured only for Solan district of the state.
- Insurance companies and agriculture departments did not insure any of the loanee farmers in the entire state because all loanee farmers were compulsorily insured under PMFBY if they borrowed from the bank and so the only medium involved in loanee farmers insurance was the commercial or co-operative banks depending upon where the farmer took loan from. For non-loanee farmers only maize and wheat crops were insured with wheat having one case higher than maize under insurance companies. Only 2 non-loanee cases were registered for maize crop and 2 for maize+wheat crops under agriculture department. Where, per household premium was higher for maize crop and per household loss was higher for wheat crop however, no compensation was secured in any of these cases. Districts scenario indicates that middle and low uptake districts of Solan and Shimla saw no insurance cases in any crop under the agriculture department for both categories of sample farmers. In case of non-loanee farmers only in high uptake district of Hamirpur, 2 insurance cases were registered for maize and maize+wheat crops each.
- The yield loss (drought, dry spells, floods, pests and diseases etc.) was the biggest cause of losses for maize, paddy and wheat crops among insured sample farmers. Wild animal menace is not covered under the insurance scheme however it was considered a big reason of crop losses by sampled households of districts under study. Post harvest losses

and localized calamities had no affect on any crop in either of the districts. Prevented sowing/planting had the least affect in terms of loss for the crops of sampled farmers.

- It was observed that majority of loanee and non-loanee farmers responded that the PMFBY is better than earlier insurance schemes; however, the percentage of non-loanee farmers is higher than loanee farmers about this particular aspect of the scheme. District-wise responses of farmers experience with PMFBY shows same results.
- The officials of agriculture department were the main authority/agency to inform about individual losses for both loanee and non-loanee insured farmers. The proportion of loanee farmers was higher than the non-loanee farmers regarding this aspect, therefore, mostly loanee farmers informed about their losses to this particular authority rather than non-loanee farmers. The same pattern was also repeated in all three districts of the state. In case of loanee farmers, high uptake district Hamirpur got higher proportion regarding this aspect as compared to other two districts but in case of non-loanee farmers, middle uptake district Solan got higher percentage as compared to other two districts.
- Majority of loanee and non-loanee sampled farmers have informed about their losses to particular authority/agency within a time period of 48 hours. Time taken to inform the agency about losses was lesser in case of loanee farmers. Low uptake district Shimla shows more efficient result about this aspect in case of loanee and non-loanee insured farmers.
- Small proportion of sample of insured farmers has been covered under Crop Cutting Experiments (CCEs) of PMFBY. These are conducted at individual as well as village level. Large number of non-loanee farmers were covered under CCEs as compared to loanee farmers. In case of loanee and non-loanee farmers, low uptake district Shimla was more efficient with the view of CCEs conducted on individual farm. Similarly, non-loanee farmers of district Shimla were mostly aware about the CCEs conducted in their villages, but loanee farmers of high uptake district Hamirpur were aware about the CCEs conducted in their villages.
- A very small proportion of insured farmers agreed to a positive role of *panchayat* in implementation of PMFBY. Majority of them responded that *panchayats* played important role in organizing awareness camps regarding PMFBY in all districts, except district Shimla.

- Out of total sample (30 non-insured farmers) 24 non-insured farmers were aware about PMFBY. Main source of information was electronic media/news paper and Agriculture Department in the state. Aware proportion of control group farmers about PMFBY was highest in middle uptake district Solan. In high uptake district Hamirpur, Agriculture Department was the main source of information about this scheme. In case of Middle uptake district both electronic media/news paper and Agriculture Department were the main source of information. In low uptake district Shimla, electronic media/news paper was the main source of information about PMFBY for control group farmers.
- The lack of awareness was the main hinderance and about half of sampled non-insured farmers reported this to be a major reason for not opting PMFBY. Similarly, middle uptake and low uptake districts of Solan and Shimla reported this to be a major reason for not opting the scheme. But in high uptake district of Hamirpur, majority of non-insured farmers reported that the cumbersome procedure/lack of co-operation was the main reason for not opting PMFBY.
- The stakeholders in this scheme are the insurance companies, the agriculture department, the banks and most important the farmers. Insurance companies are facing trouble with improper data records of farmers land and harvest and lack of coordination among themselves and with the agriculture departments. Dearth of initiative and interest in some insurance officials along with less awareness among farmers about the scheme makes it furthermore difficult for the insurance agencies to complete its targets. For the farmers, protecting their crops against wild animals is the greatest issue. Farmers are willing to learn about the scheme provided the banks and other authorities make it easy for them. Banks are relatively at ease with the whole insurance process as farmers borrow money from them and are compulsorily insured under PMFBY. Lastly, agriculture departments are the main coordinators between the banks and insurance agencies for PMFBY. State agriculture and revenue departments have responsibility of setting up farmer awareness camps in villages and also of conducting crop cutting experiments (CCEs). According to them righteous efforts are being made from their side for the implementation of the scheme but the problem is at the local level where proper data is not being maintained by the *Patwaris* and the *Kanungos*.

- A grave problem is that no proper and sufficient records are maintained about farmers insurance or their land or the harvest. The insurance units in every district are too large to be managed efficiently. The farmers, who are insured under PMFBY, claim disbursement process is slow and the amount received by the farmers is often meager compared to their losses. Another problem is that CCE do not identify correct losses for all farmers as these experiments are often not conducted at all and when these are conducted, correct procedure is not followed. Non-loanee farmers are not entertained rather not much emphasis is laid on their insurance by the authorities. Even the groups and Committees set up for better implementation of the scheme are driven by political motive, in officials there is a feeling of nepotism and self interest and because of all this welfare of needy farmers is compromised. Another big problem is crop destruction by wild animals which is not covered under any insurance scheme. Farmers reported that there should be provision of insurance/protection of their crops from wild animals. The awareness level among farmers (all, loanee, non-loanee, insured and uninsured) about the scheme is very low and the ones who know about it are not interested or willing to get crop insurance as they find no utility for it due to less compensation, all losses not being covered and complicated paperwork etc.

7.2 Policy Implications

Policy implications emerged from findings of the present study are summarised here. The policy implications will be helpful in removing the present drawbacks and improve the future implementation of the scheme.

- Spreading awareness among farmers should be the foremost priority for the government as farmers aware of the scheme are less in the first place and the ones who know about the scheme do not quite understand the real scenario. For spreading awareness there should be scheme promoting officers appointed by the government. Awareness camps should also be organized at the village or *panchayat* level regularly. Funding for setting up camps should be increased by the government and also these awareness camps should be monitored regularly so as to ensure that awareness among farmers is spread properly. Farmers should not face inconvenience in getting crop insurance due to lots of documentation rather they should be insured in these camps itself.

- CCEs should be undertaken in the presence of a member from an insurance agency. For this a prior notice should be given to the insurance agencies about the date and place of CCEs. Yield assessment should be done properly. Different villages should be inspected for rabi and kharif crops. For CCEs one unit must have minimum 16 compulsory experiments. CCEs are subjected to manipulations and misused for private interest and therefore its proper functioning should be ensured. Assessment units should be small because of variations in geography, topography and climate but doing so will create a problem of scarce manpower which also needs to be checked. Farmer's representation and participation in CCEs should be encouraged.
- Implementation of the scheme should be at the local level. Insurance Units should be made on *Panchayat* level as this is the closest way of coverage to the farmers. Monitoring of insurance agencies should also be done on local level such that right working is assured.
- Crops in Himachal Pradesh are under big risk of damage from wild animals like monkeys, boars, peacocks etc. but this is not covered in PMFBY for obvious reasons as loss caused by wild animals cannot be proven. It is suggested that the government should at least provide protection from these animals if not insurance. The government could either take care of these animals by taking them away to forest or provide subsidies and installation facilities for fencing the farms land. But fencing is also useful only when farm is consolidated. Electric current fencing system is most suitable for farms in Himachal Pradesh. Scheme should be according to needs of the local areas.
- Loan limit should be increased for the area of land so that farmers have access to more credit for their agricultural needs.
- Data collection should be done properly by the banks, insurance agencies and agriculture departments. *Patwari* and *Kanungo* should be more involved and should maintain proper records (*Girdwari*) especially of the area cultivated. Farm on which insurance is being taken should be scrutinized properly because sometimes farmer takes insurance on land which is not cultivated at all. Proper demarcation between *Kabza* (who is cultivating) and *Malik* (who is the owner) should be identified.
- Individual losses should be catered. Yield assessment should not be based on a sample plot as individuals suffer different amounts of losses.

- The previous Scheme of NAIS (National agriculture Insurance Scheme) was better according to the agriculture department as PMFBY has failed in providing compensation to farmers. Even WBIS (Weather Based Insurance Scheme) is a better scheme than PMFBY because, it gives more claims and hence PMFBY should be based on WBIS instruments.
- Government should release claim amount on time to the insurance companies. Claims should be disbursed timely. Just like premium deduction, procedure for attainment of claims on losses should be made automatic for the farmers.
- Government should announce one uniform scheme every year so that the farmers do not get confused with different names of similar benefits.
- Farmers should be supported even before the actual loss happens in the form of provision of high quality seeds at subsidized rates, cheaper fertilizers, irrigation facilities, easier credit facilities etc.
- Services of *Gram Sevak* Centers should be revived as the *Gram Sevaks* used to help with the soil testing and would also spread door to door awareness about various government schemes. Having a person in every village, which farmers can approach easily, makes it convenient for them to cater to their farming related problems.

Annexure:

In the section of Annexure the study included district-wise tables regarding the demographic profile of sample households as well as their responses about the performance of PMFBY.

Annexure-1: Demographic Profile of Sampled Households in High Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Average Family size	5	5	6
Workers	97	38	33
Male	49	18	17
Female	48	20	16
Literacy (%)	91.61	83.33	84.21
Male	98.82	73.33	87.88
Female	82.85	95.83	79.16
Dependency Rate	37.42	29.63	42.10

Annexure - 2: Age Composition of Sampled Households in High Uptake District

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
0-5	4.52	11.12	1.75
Male	2.35	16.67	3.03
Female	7.14	4.17	0
5-16	18.06	5.55	21.06
Male	23.53	10.00	27.27
Female	11.43	0	12.50
16-60	62.58	70.37	57.89
Male	57.65	60.00	51.52
Female	68.57	83.33	66.67
Above 60	14.84	12.96	19.30
Male	16.47	13.33	18.18
Female	12.86	12.50	20.83
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure - 3: Educational Status of Sampled Households in High Uptake District

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Primary	22.53	8.89	29.17
Male	17.86	4.54	24.13
Female	29.31	13.04	36.84
Middle	22.53	17.78	25.00

Male	19.05	13.64	24.13
Female	27.59	21.74	26.31
Matric	24.65	35.55	18.75
Male	29.76	45.55	20.69
Female	17.24	26.09	15.79
Secondary	23.24	15.56	8.33
Male	26.19	9.10	13.80
Female	18.96	21.74	0
Graduate/PG	7.05	17.78	12.50
Male	7.14	22.73	10.35
Female	6.90	13.04	15.70
Technical	0	4.44	6.25
Male	0	4.54	6.90
Female	0	4.35	5.27
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-4: Occupational Pattern of Sampled Households in High Uptake District (Primary)

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	56.19	64.10	64.52
Male	40.35	31.58	44.45
Female	75.00	95.00	92.31
Wage Labour	19.05	10.26	3.22
Male	17.54	21.05	5.55
Female	20.84	0	0
Service	12.38	15.38	19.36
Male	21.05	31.58	27.78
Female	2.08	0	7.69
Rural Artisan	3.81	0	9.68
Male	5.26	0	16.67
Female	2.08	0	0
Business	8.57	10.26	3.22
Male	15.79	15.79	5.55
Female	0	5.00	0
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure -5: Occupational Pattern of Sampled Households in High Uptake District (Subsidiary)

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	85.45	62.50	50.00
Male	89.19	100.00	66.67
Female	77.78	0	25.00
Wage Labour	12.73	37.50	30.00
Male	10.81	0	33.33
Female	16.67	100.00	75.00
Service	1.82	0	0
Male	0	0	0
Female	5.55	0	0
Rural Artisan	0	0	0
Male	0	0	0
Female	0	0	0
Business	0	0	0
Male	0	0	0
Female	0	0	0
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-6: Livestock Possessed by Sampled Households in High Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Cows	15.38	3.45	6.67
Buffaloes	71.16	65.52	73.33
Bullocks	0	0	0
Sheep/Goats	13.46	31.03	20.00
Total	100.00	100.00	100.00
No./HH	1.73	2.90	1.50
Poultry/HH	0	0	0

Annexure-7: Livestock Possessed by Sampled Households in High Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Cows	9.95	1.97	4.95
Buffaloes	88.69	84.73	91.58
Bullocks	0	0	0
Sheep/Goats	1.36	13.30	3.47
Total	100.00	100.00	100.00
Value in Rs./HH	47920.00	81200.00	40400.00
Poultry/HH (Rs.)	0	0	0

Annexure-8: Farm Equipments and Machinery owned by Sampled Households in High Uptake District
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Hand Operated	98.48	100.00	98.73
Animal Drawn	0	0	0
Thresher	0	0	0
Chaff Cutter	0.38	0	1.27
Tractor	1.14	0	0
Total	100.00	100.00	100.00
No./HH	8.70	9.60	7.90

Annexure- 9: Farm Equipments and Machinery owned by Sampled Households in High Uptake District
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Hand Operated	4.56	100.00	79.95
Animal Drawn	0	0	0
Thresher	0	0	0
Chaff Cutter	0.45	0	20.05
Tractor	94.99	0	0
Total	100.00	100.00	100.00
Value in Rs./HH	40356.33	1942.00	1995.00

Annexure-10: Modern Durables Owned by Sampled Households in High Uptake District
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
TV	37.31	34.61	50.00
Refrigerator	23.88	34.61	35.00
Washing Machine	10.45	7.69	15.00
Sewing Machine	25.37	11.55	0
Two Wheeler	2.99	7.69	0
Four Wheeler	0	3.85	0
Total	100.00	100.00	100.00
No./HH	2.23	2.60	2.00

Annexure-11: Modern Durables Owned by Sampled Households in High Uptake District
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
TV	33.95	8.18	42.43
Refrigerator	28.31	9.03	37.12
Washing Machine	17.23	3.30	20.45
Sewing Machine	5.95	0.37	0
Two Wheeler	14.56	10.74	0
Four Wheeler	0	68.38	0
Total	100.00	100.00	100.00
Value in Rs./HH	16250.00	81900.00	13200.00

Annexure -12: Farm Buildings Owned by Sampled Households in High Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Residential Buildings			
Kucha	4.25	12.08	0.85
Pucca	87.66	50.44	86.92
Semi- Pucca	8.09	37.48	12.23
Total	100.00	100.00	100.00
Value in Rs./HH	351366.67	281500.00	470000.00
Cattle Sheds			
Kucha	24.99	37.78	7.35
Pucca	36.74	0	63.25
Semi- Pucca	37.27	62.22	29.41
Total	100.00	100.00	100.00
Value in Rs./HH	31300.00	22500.00	34000.00
Storage/Shops			
Kucha	0	0	0
Pucca	100.00	0	67.50
Semi- Pucca	0	0	32.50
Total	100.00	0	100.00
Value in Rs./HH	6666.67	0	20000.00

Annexure-13: Average Annual Income of Sampled Households in High Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	6.64	9.07	4.59
Service	25.06	47.22	27.92
Farm Labour	1.26	3.17	4.87
MGNREGA	3.12	1.16	3.17
Business	15.65	11.83	16.23
Rural Artisan	4.43	4.11	1.28
Rent	0.42	0.64	0
Remittance	0.14	0	0
Pension	43.28	22.80	34.80
Others	0	0	7.14
Total	100.00	100.00	100.00
Annual Income in Rs./HH	237771.73	337972.00	184805.00

Annexure-14: Asset Related Information of Sampled Farmers in High Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Total value of all land owned	62.56	79.85	71.54
Total value of all farm equipment/ Machinery owned	3.06	0.08	0.10

Total value of buildings/house/storehouse/shop/ all real estate	29.54	13.06	25.73
Total value of all livestock	3.61	3.49	1.98
Others	1.23	3.52	0.65
Total (%)	100.00	100.00	100.00
Total Value /HH	1318193.00	2328542.00	2036595.00

Annexure-15: Per Farm Land Holding of Sampled Farmers in High Uptake District (in Acres)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Own Land	1.64	4.09	3.35
Irrigated	0.14	0.28	0.20
Unirrigated	1.50	3.81	3.15
Leased in Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Rent Paid for Leased in Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Leased Out Land	0	Negligible	0
Irrigated	0	0	0
Unirrigated	0	Negligible	0
Rent Received for Leased out Land	0	180.00	0
Irrigated	0	0	0
Unirrigated	0	180.00	0
Uncultivated Land	0.46	1.60	2.15
Net Operated Area	1.18	2.49	1.20
Irrigated	0.14	0.28	0.20
Unirrigated	1.04	2.21	1.00

Annexure-16: Cropping Pattern of Sampled Farmers in High Uptake District (Area) (%)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Kharif Crop			
Maize	48.89	46.70	49.20
Paddy	0	0	0
Tomato	0	0	0
Millet	0	0	0
Pulses (Udadh, Kulath)	0	0	0
Capsicum	0	0	0
Sesame	0	0	0
Ginger	0.36	0	0

Turmeric	0	0	0
Rabi Crop			
Wheat	47.56	53.30	50.80
Barley	1.77	0	0
Cauliflower	1.42	0	0
Onion	0	0	0
Cabbage	0	0	0
Carrot	0	0	0
Garlic	0	0	0
Reddish	0	0	0
Potato	0	0	0
Fruit Crops			
Apricot	0	0	0
Pomegranate	0	0	0
GCA (%)	100.00	100.00	100.00
GCA/HH	2.33	4.59	2.32
NSA/HH	1.18	2.49	1.20
Crop Intensity	197.46	184.36	193.33

Annexure-17: Per Farm Production of Crops of Sampled Farmers in High Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Kharif Crop			
Maize	6.08	10.60	3.63
Paddy	0	0	0
Tomato	0	0	0
Millet	0	0	0
Pulses (Udadh, Kulath)	0	0	0
Capsicum	0	0	0
Sesame	0	0	0
Ginger	0.07	0	0
Turmeric	0	0	0
Rabi Crop			
Wheat	5.00	11.25	2.33
Barley	0.20	0	0
Cauliflower	0.50	0	0
Onion	0	0	0
Cabbage	0	0	0
Carrot	0	0	0
Garlic	0	0	0
Reddish	0	0	0

Potato	0	0	0
Fruit Crops			
Apricot	0	0	0
Pomegranate	0	0	0

Annexure-18: Per Farm quantity of crop output marketed by High Uptake District

Particulars	Insured farmers				Non- insured farmers	
	loanee		Non- loanee		Quantity	Value
	Quantity	Value	Quantity	Value		
Kharif Crop						
Maize	3.00	4506.67	6.00	9000.00	1.80	2760.00
Paddy	0	0	0	0	0	0
Tomato	0	0	0	0	0	0
Millet	0	0	0	0	0	0
Pulses (Udadh, Kulath)	0	0	0	0	0	0
Capsicum	0	0	0	0	0	0
Sesame	0	0	0	0	0	0
Ginger	0.07	166.67	0	0	0	0
Turmeric	0	0	0	0	0	0
Rabi Crop						
Wheat	1.90	3140.00	6.10	10120.00	0.50	870.00
Barley	0	0	0	0	0	0
Cauliflower	0.50	500.00	0	0	0	0
Onion	0	0	0	0	0	0
Cabbage	0	0	0	0	0	0
Carrot	0	0	0	0	0	0
Garlic	0	0	0	0	0	0
Reddish	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Fruit Crops						
Apricot	0	0	0	0	0	0
Pomegranate	0	0	0	0	0	0

Annexure-19: Irrigation Source of Sampled Households in High Uptake District

(% of Total Sample)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Dug well	0	10.00	0
Bore well	3.33	0	20.00
Kuhl	0	0	10.00
Tank	0	0	0
Other	0	0	0

Annexure-20: Insurance Details of Sampled Farmers in High Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Insured Under RKBV	26.66	50.00
Insured Under PMFBY	100.00	100.00
Would opt for insurance even if optional	66.66	20.00

Annexure-21: Medium of Information about PMFBY of Insured Farmers in High Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Government awareness programme	46.67	90.00
Insurance Company/Agent	0	0
Panchayat	20.00	0
Other villagers	0	0
Other	6.67	0
Indifferent	26.66	10.00
Total	100	100

Annexure-22: Insurance Details of Commercial Banks in High Uptake District

Rs. /HH

Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	3	90.00	5000.00	0
Paddy	0	0	0	0
Wheat	4	195.75	7375.00	0
Maize +Wheat	23	217.67	15010.87	0
Non- loanee				
Maize	1	90.00	7500.00	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	3	674.34	15100.00	0

Annexure-23: Insurance Details of Co-operative Banks/Societies in High Uptake District

Rs. /HH

Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	1	177.00	8000.00	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

Annexure-24: Insurance Details of Insurance Agencies in High Uptake District

Particulars	No. of Cases	Total Premium	Total Loss	Rs. /HH
				Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	1	576.00	15000.00	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

Annexure-25: Insurance Details of Agriculture Department in High Uptake District

Particulars	No. of Cases	Total Premium	Total Loss	Rs. /HH
				Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	2	126.00	8000.00	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	2	81.00	18400.00	0

Annexure-26: Event of Losses for Maize Crop in High Uptake District

Particulars	Insured farmers	
	(% of Total)	
	loanee	Non- loanee
Prevented Sowing/Planting	0	0
Yield Loss	61.54	40.00
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	38.46	60.00
Total	100	100

Annexure-27: Event of Losses for Paddy Crop in High Uptake District

Particulars	Insured farmers	
	(% of Total)	
	loanee	Non- loanee
Prevented Sowing/Planting	0	0
Yield Loss	0	0
Post Harvest losses	0	0

Localized Calamities	0	0
Losses due to Wild Animals	0	0
Total	0	0

Annexure-28: Event of Losses for Wheat Crop in High Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Prevented Sowing/Planting	3.70	0
Yield Loss	77.78	100.00
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	18.52	0
Total	100	100.00

Annexure-29: Credit Structure of Sampled farm Households in High Uptake District

Rs. /HH

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Commercial Banks			
No. of Farmers	30	2	0
Amount	69300.00	850000.00	0
Duration (Range)	12	12-60	0
Interest rate (% Range)	4	7-14	0
Amount paid	43200.00	225000.00	0
Outstanding Amount	26100.00	625000.00	0
Cooperative Banks/Societies			
No. of Farmers	0	3	1
Amount	0	223333.33	500000.00
Duration (Range)	0	6-144	60
Interest rate (% Range)	0	7-12	10
Amount paid	0	19666.67	100000.00
Outstanding Amount	0	203666.67	400000.00

Annexure-30: Purpose of Borrowing by Sampled Households in High Uptake District

(% of Total Sample)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Variable farm Inputs (Fertilizer, Pesticides)	96.67	60.00	100.00
Farm Equipments	46.67	40.00	100.00
Dairy Animals	63.33	80.00	0
Consumption	73.33	100.00	100.00
Social Obligation	40.00	40.00	0
Others	26.67	0	0

Annexure-31: Demographic Profile of Sampled Households in Middle Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Average Family size	5	6	5
Workers	87	35	30
Male	45	19	17
Female	42	16	13
Literacy (%)	90.73	85.96	84.31
Male	90.79	85.18	85.71
Female	90.67	86.67	82.61
Dependency Rate	42.38	38.60	41

Annexure-32: Age Composition of Sampled Households in Middle Uptake District

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
0-5	6.62	7.02	5.88
Male	9.21	11.11	7.14
Female	4.00	3.33	4.35
5-16	20.52	22.81	21.57
Male	17.10	11.11	21.43
Female	24.00	33.33	21.74
16-60	57.63	61.40	58.83
Male	59.22	70.37	60.72
Female	56.00	53.34	56.52
Above 60	15.23	8.77	123.72
Male	14.47	7.41	10.71
Female	16.00	10.00	17.39
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-33: Educational Status of Sampled Households in Middle Uptake District

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Primary	24.81	44.90	18.61
Male	18.84	30.44	16.67
Female	30.88	57.69	21.05
Middle	11.68	12.24	18.61
Male	11.59	13.04	20.83
Female	11.76	11.54	15.80
Matric	27.74	18.37	23.25
Male	33.34	30.44	25.00
Female	22.05	7.69	21.05

Secondary	22.65	14.28	23.25
Male	21.74	8.69	25.00
Female	23.54	19.23	21.05
Graduate/PG	10.22	10.21	16.28
Male	10.14	17.39	12.50
Female	10.29	3.85	21.05
Technical	2.92	0	0
Male	4.35	0	0
Female	1.47	0	0
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-34: Occupational Pattern of Sampled Households in Middle Uptake District (Primary)

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	75.00	70.59	72.73
Male	52.17	55.00	55.56
Female	97.83	92.86	93.33
Wage Labour	1.09	2.94	0
Male	2.17	0	0
Female	0	7.14	0
Service	10.87	5.88	12.12
Male	19.58	10.00	22.22
Female	2.17	0	0
Rural Artisan	1.09	14.71	0
Male	2.17	25.00	0
Female	0	0	0
Business	11.95	5.88	15.15
Male	23.91	10.00	22.22
Female	0	0	6.67
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-35: Occupational Pattern of Sampled Households in Middle Uptake District (Subsidiary)

(%)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	54.54	57.89	40.00
Male	62.07	64.29	50.00
Female	40.00	40.00	25.00
Wage Labour	34.10	21.05	50.00
Male	20.69	7.14	50.00

Female	60.00	60.00	50.00
Service	0	5.26	0
Male	0	7.14	0
Female	0	0	0
Rural Artisan	0	0	0
Male	0	0	0
Female	0	0	0
Business	11.36	15.79	10.00
Male	17.24	21.43	0
Female	0	0	25.00
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-36: Livestock Possessed by Sampled Households in Middle Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Cows	80.60	89.48	78.26
Buffaloes	19.40	5.26	17.39
Bullocks	0	5.26	4.35
Sheep/Goats	0	0	0
Total	100.00	100.00	100.00
No./HH	2.23	1.90	2.30
Poultry/HH	4.90	0	0

Annexure-37: Livestock Possessed by Sampled Households in Middle Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Cows	79.23	86.21	57.89
Buffaloes	20.77	10.34	28.33
Bullocks	0	3.45	13.78
Sheep/Goats	0	0	0
Total	100.00	100.00	100.00
Value in Rs./HH	59366.67	29000.00	65300.00
Poultry/HH (Rs.)	1470.00	0	0

Annexure-38: Farm Equipments and Machinery owned by Sampled Households in Middle Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Hand Operated	97.68	97.01	95.96
Animal Drawn	0.19	0	1.01
Thresher	0.78	0	0
Chaff Cutter	1.16	2.99	2.02
Tractor	0.19	0	1.01

Total	100.00	100.00	100.00
No./HH	17.23	6.70	9.90

Annexure-39: Farm Equipments and Machinery owned by Sampled Households in Middle Uptake District
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Hand Operated	12.28	75.87	4.52
Animal Drawn	0.13	0	3.97
Thresher	35.66	0	0
Chaff Cutter	4.09	24.13	4.28
Tractor	47.84	0	87.23
Total	100.00	100.00	100.00
Value in Rs./HH	38323.83	3730.00	63050.00

Annexure-40: Modern Durables Owned by Sampled Households in Middle Uptake District
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
TV	32.95	35.72	32.26
Refrigerator	25.00	32.14	29.03
Washing Machine	20.45	21.43	25.80
Sewing Machine	3.42	3.57	3.23
Two Wheeler	9.09	3.57	3.23
Four Wheeler	9.09	3.57	6.45
Total	100.00	100.00	100.00
No./HH	2.93	2.80	3.10

Annexure-41: Modern Durables Owned by Sampled Households in Middle Uptake District
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
TV	5.82	13.98	11.55
Refrigerator	3.99	15.47	11.13
Washing Machine	4.28	7.63	7.81
Sewing Machine	0.11	0.42	0.20
Two Wheeler	13.36	9.53	4.88
Four Wheeler	72.44	52.97	64.43
Total	100.00	100.00	100.00
Value in Rs./HH	139463.33	47200.00	102430.00

Annexure-42: Farm Buildings Owned by Sampled Households in Middle Uptake District
(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Residential Buildings			
Kucha	2.24	15.53	2.92
Pucca	87.28	84.47	79.36

Semi- Pucca	10.48	0	17.72
Total	100.00	100.00	100.00
Value in Rs./HH	724500.00	438000.00	564500.00
Cattle Sheds			
Kucha	10.00	84.62	25.00
Pucca	72.63	15.38	65.38
Semi- Pucca	17.37	0	9.62
Total	100.00	100.00	100.00
Value in Rs./HH	63333.33	32500.00	52000.00
Storage/Shops			
Kucha	0	0	0
Pucca	100.00	0	0
Semi- Pucca	0	0	0
Total	100.00	0	0
Value in Rs./HH	14000.00	0	0

Annexure-43: Average Annual Income of Sampled Households in Middle Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	37.22	12.30	8.17
Service	19.17	16.43	29.88
Farm Labour	1.76	2.91	0
MGNREGA	2.41	5.12	2.32
Business	15.14	52.59	18.52
Rural Artisan	1.59	1.64	0.79
Rent	0.83	0	3.04
Remittance	0.16	0	0
Pension	21.72	9.01	37.28
Others	0	0	0
Total	100.00	100.00	100.00
Annual Income in Rs./HH	242093.13	182550.00	329325.00

Annexure-44: Asset Related Information of Sampled Farmers in Medium Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Total value of all land owned	71.25	75.01	78.93
Total value of all farm equipment/ Machinery owned	1.05	0.17	1.59
Total value of buildings/house/storehouse/shop/ all real estate	22.16	21.36	15.55
Total value of all livestock	1.70	1.32	1.44
Others	3.84	2.14	2.49
Total	100.00	100.00	100.00
Total Value /HH	3633790.50	2202930.00	3964480.00

Annexure-45: Per Farm Land Holding of Sampled Farmers in Medium Uptake District (Acres)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Own Land	6.71	2.86	4.64
Irrigated	0.17	0.04	0.20
Unirrigated	6.54	2.82	4.44
Leased in Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Rent Paid for Leased in Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Leased Out Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Rent Received for Leased out Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Uncultivated Land	2.75	1.64	2.74
Net Operated Area	3.96	1.22	1.90
Irrigated	0.17	0.04	0.20
Unirrigated	3.79	1.18	1.70

Annexure-46: Cropping Pattern of Sampled Farmers in Medium Uptake District (Area) (%)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Kharif Crop			
Maize	39.62	40.19	52.33
Paddy	0.27	1.78	0
Tomato	8.29	13.39	1.98
Millet	0	0	0
Pulses (Udadh, Kulath)	0	0	0
Capsicum	0.18	0	0.66
Sesame	0	0.89	0
Ginger	1.18	0	0
Turmeric	0	1.78	0
Rabi Crop			
Wheat	45.63	41.97	45.03
Barley	0	0	0
Cauliflower	1.27	0	0
Onion	0.36	0	0
Cabbage	0.27	0	0

Carrot	0	0	0
Garlic	1.82	0	0
Reddish	0	0	0
Potato	0	0	0
Fruit Crops			
Apricot	0	0	0
Pomegranate	1.09	0	0
GCA (%)	100.00	100.00	100.00
GCA/HH	7.32	2.24	3.02
NSA/HH	3.96	1.22	1.90
Crop Intensity	184.85	183.61	158.95

Annexure-47: Per Farm Production of Crops of Sampled Farmers in Medium Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Kharif Crop			
Maize	8.78	3.75	3.60
Paddy	0.07	0.30	0
Tomato	6.63	3.52	2.50
Millet	0	0	0
Pulses (Udadh, Kulath)	0	0	0
Capsicum	0.48	0	0.03
Sesame	0	0.003	0
Ginger	0.95	0	0
Turmeric	0	0.02	0
Rabi Crop			
Wheat	8.92	1.80	3.30
Barley	0	0	0
Cauliflower	1.75	0	0
Onion	0.27	0	0
Cabbage	0.22	0	0
Carrot	0	0	0
Garlic	2.17	0	0
Reddish	0	0	0
Potato	0	0	0
Fruit Crops			
Apricot	0	0	0
Pomegranate	0.68	0	0

Annexure-48: Per Farm quantity of crop output marketed by Medium Uptake District

Particulars	Insured farmers				Non- insured farmers	
	loanee		Non- loanee		Quantity	Value
	Quantity	Value	Quantity	Value		
Kharif Crop						
Maize	5.57	8473.33	1.30	1950.00	1.00	1500.00
Paddy	0	0	0	0	0	0
Tomato	6.40	14486.67	3.51	10320.00	2.50	10000.00
Millet	0	0	0	0	0	0
Pulses (Udadh, Kulath)	0	0	0	0	0	0
Capsicum	0.45	1800.00	0	0	0.03	150.00
Sesame	0	0	0	0	0	0
Ginger	0.75	2700.00	0	0	0	0
Turmeric	0	0	0.01	330.00	0	0
Rabi Crop						
Wheat	36.17	9686.67	0.20	800.00	0.40	1200.00
Barley	0	0	0	0	0	0
Cauliflower	1.75	2500.00	0	0	0	0
Onion	0.23	466.67	0	0	0	0
Cabbage	0.21	413.33	0	0	0	0
Carrot	0	0	0	0	0	0
Garlic	2.17	9333.33	0	0	0	0
Reddish	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Fruit Crops						
Apricot	0	0	0	0	0	0
Pomegranate	0.67	5333.33	0	0	0	0

Annexure-49: Irrigation Source of Sampled Households in Middle Uptake District

(% of Total Sample)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Dug well	6.67	0	0
Bore well	6.67	10.00	10.00
Kuhl	0	0	0
Tank	0	0	0
Other	0	0	0

Annexure-50: Insurance Details of Sampled Farmers in Medium Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Insured Under RKBV	40.00	20.00
Insured Under PMFBY	100.00	100.00
Would opt for insurance even if optional	53.33	0

Annexure-51: Medium of Information about PMFBY of Insured Farmers in Middle Uptake District
(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Government awareness programme	63.33	70.00
Insurance Company/Agent	0	10.00
Panchayat	3.33	20.00
Other villagers	0	0
Other	6.67	0
Indifferent	26.66	0
Total	100	100

Annexure-52: Insurance Details of Commercial Banks in Middle Uptake District

Particulars	No. of Cases	Total Premium	Total Loss	Rs. /HH
				Compensation Secured
loanee				
Maize	24	222.65	13866.67	3686.67
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	6	265.00	11633.34	4589.00
Paddy	2	60.00	4500.00	1988.00
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

Annexure-53: Insurance Details of Co-operative Banks/Societies in Middle Uptake District

Particulars	No. of Cases	Total Premium	Total Loss	Rs. /HH
				Compensation Secured
loanee				
Maize	6	212.67	12233.34	3611.85
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

Annexure-54: Insurance Details of Insurance Agencies in Middle Uptake District

Particulars	No. of Cases	Total Premium	Total Loss	Rs. /HH
				Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0

Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	2	308.50	10000.00	1020.00
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

Annexure-55: Insurance Details of Agriculture Department in Middle Uptake District

Rs. /HH

Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

Annexure-56: Event of Losses for Maize Crop in Middle Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Prevented Sowing/Planting	3.33	12.50
Yield Loss	46.67	87.50
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	50.00	0
Total	100	100

Annexure-57: Event of Losses for Paddy Crop in Middle Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Prevented Sowing/Planting	0	0
Yield Loss	0	100.00
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	0	0
Total	0	100

Annexure-58: Event of Losses for Wheat Crop in Middle Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Prevented Sowing/Planting	0	0
Yield Loss	0	0
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	0	0
Total	0	0

Annexure-59: Credit Structure of Sampled farm Households in Middle Uptake District

Rs. /HH

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Commercial Banks			
No. of Farmers	22	0	1
Amount	149590.91	0	200000
Duration (Range)	12-60	0	36
Interest rate (% Range)	4	0	14
Amount paid	37045.45	0	50000
Outstanding Amount	112545.46	0	150000
Cooperative Banks/Societies			
No. of Farmers	8	0	0
Amount	327500.00	0	0
Duration (Range)	12-180	0	0
Interest rate (% Range)	4	0	0
Amount paid	81250.00	0	0
Outstanding Amount	246250.00	0	0

Annexure-60: Purpose of Borrowing by Sampled Households in Middle Uptake District

(% of Total Sample)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Variable farm Inputs (Fertilizer, Pesticides)	73.33	0	100.00
Farm Equipments	66.67	0	0
Dairy Animals	60.00	0	100.00
Consumption	70.00	0	100.00
Social Obligation	56.67	0	0
Others	46.67	0	0

Annexure-61: Demographic Profile of Sampled Households in Low Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Average Family size	5	6	6
Workers	111	39	39

Male	57	19	21
Female	54	20	18
Literacy (%)	91.19	88.13	84.48
Male	98.84	96.15	87.50
Female	82.19	81.82	80.77
Dependency Rate	30.19	33.90	32.76

Annexure-62: Age Composition of Sampled Households in Low Uptake District

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
0-5	6.29	6.78	5.18
Male	4.65	3.85	3.12
Female	8.22	9.09	7.69
5-16	11.32	15.25	17.24
Male	13.95	7.70	21.87
Female	8.22	21.21	11.54
16-60	69.81	66.10	67.24
Male	66.28	73.07	65.63
Female	73.97	60.61	69.23
Above 60	12.58	11.87	10.34
Male	15.12	15.38	9.38
Female	9.59	9.09	11.54
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-63: Educational Status of Sampled Households in Low Uptake District

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Primary	14.48	23.08	14.28
Male	11.76	12.00	3.57
Female	18.33	33.33	28.57
Middle	16.56	11.54	30.61
Male	15.29	16.00	39.29
Female	18.33	7.41	19.05
Matric	20.00	13.46	12.25
Male	23.53	16.00	7.14
Female	15.00	11.11	19.05
Secondary	30.34	32.69	32.65
Male	31.77	32.00	42.86
Female	28.33	33.33	19.05
Graduate/PG	13.10	19.23	8.16
Male	11.76	24.00	3.57

Female	15.00	14.82	14.28
Technical	5.52	0	2.05
Male	5.89	0	3.57
Female	5.00	0	0
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-64: Occupational Pattern of Sampled Households in Low Uptake District (Primary)

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	66.67	53.66	57.89
Male	45.16	31.82	33.33
Female	95.65	78.95	88.23
Wage Labour	0	2.44	2.64
Male	0	0	4.76
Female	0	5.26	0
Service	16.67	34.14	34.21
Male	25.81	50.00	52.38
Female	4.35	15.79	11.77
Rural Artisan	1.85	2.44	0
Male	3.22	4.54	0
Female	0	0	0
Business	14.81	7.32	5.26
Male	25.81	13.64	9.53
Female	0	0	0
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-65: Occupational Pattern of Sampled Households in Low Uptake District (Subsidiary)

(All figures in %)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	53.66	87.50	100.00
Male	80.77	100.00	100.00
Female	6.67	60.00	100.00
Wage Labour	31.71	12.50	0
Male	0	0	0
Female	86.66	40.00	0
Service	0	0	0
Male	0	0	0
Female	0	0	0
Rural Artisan	4.88	0	0
Male	7.69	0	0

Female	0	0	0
Business	9.75	0	0
Male	11.54	0	0
Female	6.67	0	0
Total	100.00	100.00	100.00
Male	100.00	100.00	100.00
Female	100.00	100.00	100.00

Annexure-66: Livestock Possessed by Sampled Households in Low Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Cows	82.22	75.00	60.61
Buffaloes	2.22	5.00	12.12
Bullocks	14.45	20.00	27.27
Sheep/Goats	1.11	0	0
Total	100.00	100.00	100.00
No./HH	3.00	2.00	3.30
Poultry/HH	3.60	0	0

Annexure-67: Livestock Possessed by Sampled Households in Low Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Cows	84.18	72.82	57.62
Buffaloes	4.77	13.42	25.05
Bullocks	10.57	13.76	17.33
Sheep/Goats	0.48	0	0
Total	100.00	100.00	100.00
Value in Rs./HH	48866.67	29800.00	73860.00
Poultry/HH (Rs.)	1733.33	0	0

Annexure-68: Farm Equipments and Machinery owned by Sampled Households in Low Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Hand Operated	97.89	98.36	99.22
Animal Drawn	0.21	0	0
Thresher	1.05	0	0.78
Chaff Cutter	0.64	1.64	0
Tractor	0.21	0	0
Total	100.00	100.00	100.78
No./HH	15.83	12.20	12.80

Annexure-69: Farm Equipments and Machinery owned by Sampled Households in Low Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Hand Operated	25.69	66.96	69.39
Animal Drawn	0.04	0	0
Thresher	12.73	0	30.61
Chaff Cutter	1.57	33.04	0
Tractor	59.97	0	0
Total	100.00	100.00	100.00
Value in Rs./HH	36130.00	5145.00	14700.00

Annexure-70: Modern Durables Owned by Sampled Households in Low Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
TV	28.57	31.25	37.04
Refrigerator	274.62	28.12	33.33
Washing Machine	20.95	15.63	11.11
Sewing Machine	5.71	6.25	7.41
Two Wheeler	2.86	3.12	7.41
Four Wheeler	14.29	15.63	3.70
Total	100.00	100.00	100.00
No./HH	3.50	3.20	2.70

Annexure-71: Modern Durables Owned by Sampled Households in Low Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
TV	1.14	7.60	10.48
Refrigerator	0.98	5.47	15.55
Washing Machine	0.65	3.58	3.98
Sewing Machine	0.03	0.14	0.26
Two Wheeler	0.45	2.00	19.92
Four Wheeler	96.75	81.21	49.81
Total	100.00	100.00	100.00
Value in Rs./HH	1289223.33	248750.00	58220.00

Annexure-72: Farm Buildings Owned by Sampled Households in Low Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Residential Buildings			
Kucha	7.52	3.40	17.34
Pucca	53.42	96.60	19.85
Semi- Pucca	39.06	0	62.81
Total	100.00	100.00	100.00
Value in Rs./HH	949000.00	1646000.00	597000.00

Kucha	43.82	47.37	49.18
Pucca	41.93	52.63	0
Semi- Pucca	14.25	0	50.82
Total	100.00	100.00	100.00
Value in Rs./HH	79500.00	66500.00	30500.00
Kucha	0	0	0
Pucca	100.00	100.00	0
Semi- Pucca	0	0	0
Total	100.00	100.00	0
Value in Rs./HH	6666.67	15000.00	0

Annexure-73: Average Annual Income of Sampled Households in Low Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Agriculture	8.02	4.64	16.75
Service	49.55	81.39	69.04
Farm Labour	0.73	0	0
MGNREGA	2.06	0.70	0.38
Business	16.65	3.97	8.86
Rural Artisan	2.33	0.79	0.97
Rent	8.41	2.38	0.22
Remittance	0	0	0
Pension	12.25	6.13	3.78
Others	0	0	0
Total	100.00	100.00	100.00
Annual Income in Rs./HH	480402.33	757050.00	451380.00

Annexure-74: Asset Related Information of Sampled Farmers in Low Uptake District

(% of Total)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Total value of all land owned	60.01	59.98	81.72
Total value of all farm equipment/ Machinery owned	1.17	0.10	0.36
Total value of buildings/house/storehouse/shop/ all real estate	30.22	34.38	14.80
Total value of all livestock	1.63	0.59	1.82
Others	6.97	4.95	1.30
Total	100.00	100.00	100.00
Total Value /HH	2998293.55	5025195.00	4048180.00

Annexure-75: Per Farm Land Holding of Sampled Farmers in Low Uptake District (in Acres)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Own Land	5.07	9.64	7.12
Irrigated	0.73	0.60	1.44
Unirrigated	4.34	9.04	5.68
Leased in Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Rent Paid for Leased in Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Leased Out Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Rent Received for Leased out Land	0	0	0
Irrigated	0	0	0
Unirrigated	0	0	0
Uncultivated Land	2.24	6.00	3.68
Net Operated Area	2.83	3.64	3.44
Irrigated	0.73	0.60	1.44
Unirrigated	2.10	3.04	2.00

Annexure-76: Cropping Pattern of Sampled Farmers in Low Uptake District (Area) (%)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Kharif Crop			
Maize	44.28	41.24	60.23
Paddy	0	0	0
Tomato	2.34	7.79	0
Millet	0.29	0	0
Pulses (Udadh, Kulath)	2.05	0	0
Capsicum	0	0	0
Sesame	0	0	0
Ginger	0	0	0
Turmeric	0	0	0
Rabi Crop			
Wheat	43.55	50.97	39.61
Barley	1.17	0	0
Cauliflower	0	0	0
Onion	0.15	0	0.12

Cabbage	1.17	0	0
Carrot	0.03	0	0
Garlic	0.15	0	0.04
Reddish	0.15	0	0
Potato	2.92	0	0
Fruit Crops			
Apricot	1.75	0	0
Pomegranate	0	0	0
GCA (%)	100.00	100.00	100.00
GCA/HH	4.56	6.16	5.05
NSA/HH	2.83	3.64	3.44
Crop Intensity	161.13	169.23	146.80

Annexure-77: Per Farm Production of Crops of Sampled Farmers in Low Uptake District

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Kharif Crop			
Maize	6.06	8.15	26.00
Paddy	0	0	0
Tomato	0.54	3.00	0
Millet	0.23	0	0
Pulses (Udadh, Kulath)	0.03	0	0
Capsicum	0	0	0
Sesame	0	0	0
Ginger	0	0	0
Turmeric	0	0	0
Rabi Crop			
Wheat	4.67	8.05	14.45
Barley	0.07	0	0
Cauliflower	0	0	0
Onion	0.17	0	0.04
Cabbage	0.33	0	0
Carrot	0.003	0	0
Garlic	0.07	0	0
Reddish	0.04	0	0
Potato	2.50	0	0
Fruit Crops			
Apricot	0.17	0	0
Pomegranate	0	0	0

Annexure-78: Per Farm quantity of crop output marketed by Low Uptake District

Particulars	Insured farmers				Non- insured farmers	
	loanee		Non- loanee		Quantity	Value
	Quantity	Value	Quantity	Value		
Kharif Crop						
Maize	4.43	5883.33	6.20	9300.00	21.80	33860.00
Paddy	0	0	0	0	0	0
Tomato	0.54	3926.67	3.00	10000.00	0	0
Millet	0	0	0	0	0	0
Pulses (Udadh, Kulath)	0	0	0	0	0	0
Capsicum	0	0	0	0	0	0
Sesame	0	0	0	0	0	0
Ginger	0	0	0	0	0	0
Turmeric	0	0	0	0	0	0
Rabi Crop						
Wheat	2.57	5150.00	1.51	9760.00	11.2	22100.00
Barley	0	0	0	0	0	0
Cauliflower	0	0	0	0	0	0
Onion	0.13	266.67	0	0	0	0
Cabbage	0.23	233.33	0	0	0	0
Carrot	0.003	5.33	0	0	0	0
Garlic	0.05	250.00	0	0	0	0
Reddish	0.03	66.67	0	0	0	0
Potato	2.50	3000.00	0	0	0	0
Fruit Crops						
Apricot	0.17	333.33	0	0	0	0
Pomegranate	0	0	0	0	0	0

Annexure-79: Irrigation Source of Sampled Households in Low Uptake District

(% of Total Sample)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Dug well	3.33	0	0
Bore well	0	0	0
Kuhl	26.67	30.00	40.00
Tank	3.33	0	0
Other		0	0

Annexure-80: Insurance Details of Sampled Farmers in Low Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Insured Under RKBY	26.66	30.00
Insured Under PMFBY	100.00	100.00
Would opt for insurance even if optional	26.66	0

Annexure-81: Medium of Information about PMFBY of Insured Farmers in Low Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Government awareness programme	90.00	40.00
Insurance Company/Agent	10.00	50.00
Panchayat	0	10.00
Other villagers	0	0
Other	0	0
Indifferent	0	0
Total	100	100

Annexure-82: Insurance Details of Commercial Banks in Low Uptake District

Rs. /HH

Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	8	134.75	19875.00	0
Paddy	0	0	0	0
Wheat	4	226.50	14500.00	0
Maize +Wheat	14	259.00	12642.86	11.14
Non- loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	4	312.25	50375.00	0

Annexure-83: Insurance Details of Co-operative Banks/Societies in Low Uptake District

Rs. /HH

Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	2	112.00	16000.00	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	2	538.50	15750.00	0
Non- loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

Annexure-84: Insurance Details of Insurance Agencies in Low Uptake District

Rs. /HH

Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0

Maize +Wheat	0	0	0	0
Non- loanee				
Maize	1	100.00	10000.00	0
Paddy	0	0	0	0
Wheat	5	210.00	19400.00	0
Maize +Wheat	0	0	0	0

Annexure-85: Insurance Details of Agriculture Department in Low Uptake District

Rs. /HH

Particulars	No. of Cases	Total Premium	Total Loss	Compensation Secured
loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0
Non- loanee				
Maize	0	0	0	0
Paddy	0	0	0	0
Wheat	0	0	0	0
Maize +Wheat	0	0	0	0

Annexure-86: Event of Losses for Maize Crop in Low Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Prevented Sowing/Planting	0	40.00
Yield Loss	42.31	0
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	57.69	60.00
Total	100	100

Annexure-87: Event of Losses for Paddy Crop in Low Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Prevented Sowing/Planting	0	0
Yield Loss	0	0
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	0	0
Total	0	0

Annexure-88: Event of Losses for Wheat Crop in Low Uptake District

(% of Total)

Particulars	Insured farmers	
	loanee	Non- loanee
Prevented Sowing/Planting	45.00	11.11
Yield Loss	30.00	11.11
Post Harvest losses	0	0
Localized Calamities	0	0
Losses due to Wild Animals	25.00	77.78
Total	100	100

Annexure-89: Credit Structure of Sampled farm Households in Low Uptake District

Rs. /HH

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Commercial Banks			
No. of Farmers	24	2	1
Amount	155750.00	1600000.00	200000.00
Duration (Range)	12	24-84	36
Interest rate (% Range)	4	9.5-10.5	7
Amount paid	73333.33	125000.00	200000
Outstanding Amount	82416.67	1475000.00	0
Cooperative Banks/Societies			
No. of Farmers	6	0	0
Amount	83333.33	0	0
Duration (Range)	12	0	0
Interest rate (% Range)	4	0	0
Amount paid	45833.33	0	0
Outstanding Amount	37500.00	0	0

Annexure-90: Purpose of Borrowing by Sampled Households in Low Uptake District

(% of Total Sample)

Particulars	Insured farmers		Non- insured farmers
	loanee	Non- loanee	
Variable farm Inputs (Fertilizer, Pesticides)	90.00	100.00	0
Farm Equipments	66.67	50.00	0
Dairy Animals	63.33	100.00	100.00
Consumption	76.67	100.00	100.00
Social Obligation	73.33	50.00	100.00
Others	43.33	50.00	0

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