

**Selling of Weather Insurance on Pilot basis for  
ICICI-Lombard through Mahindra Krishi Vihar Centers and  
Consumer Behavior Analysis of Weather insurance in  
Karimnagar, Andhra Pradesh.**

By

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**B.sc (Ag)**

**Project Report**

Submitted to the School of Agri Business Management,  
College of Agriculture, Acharya N, G. Ranga Agricultural University in  
Partial fulfillment of the requirements for the award of the degree of  
**Master of Agri Business Management**



**SCHOOL OF AGRIBUSINESS MANAGEMENT**

College of Agriculture

**Acharya N. G .Ranga Agriculture University,  
Rajendranagar, Hyderabad-30.**

**August 2004**

## **CERTIFICATE**

*This is to certify that **Mr. A. E. Kamal Kumar** student of Master of Agribusiness Management (M.A.B.M.) at the School of Agribusiness Management of the Acharya N.G. Ranga Agricultural University, Rajendranagar, Hyderabad, has done a project work titled "**Selling of Weather Insurance on pilot basis for ICICI-Lombard through Mahindra Krishi Vihar Centers and Consumer Behaviour Analysis of Weather Insurance in Karimnagar, Andhra Pradesh**", with **ICICI-Lombard**, Hyderabad.*

*The content and execution of the project are very good as well as the insights provided are very useful.*

*(**Mr. Praveen Vecha**)  
Bancassurance Manager  
ICICI-Lombard General Insurance.*

## **CERTIFICATE**

*This is to certify that the project entitled "**Selling of Weather Insurance on pilot basis for ICICI-Lombard through Mahindra Krishi Vihar Centers and Consumer Behaviour Analysis of Weather Insurance in Karimnagar, Andhra Pradesh**", submitted in partial fulfillment of the requirements for the degree of Master of Agribusiness Management (M.A.B.M.) to the School of Agribusiness Management, Acharya N.G. Ranga Agricultural University, Rajendranagar, Hyderabad is record of the bonafide work carried out by Mr. **A. E. Kamal Kumar** under our guidance and supervision.*

*No part of the project report has been submitted for any other degree or diploma. The guides approve this project report.*

*Date:*

**(Chairman/Internal Guide)**

*Place: Hyderabad*

**(Member)**

## **DECLARATION**

*I A. E. Kamal Kumar hereby declare that the project report entitled, "Selling of Weather Insurance on pilot basis for ICICI-Lombard through Mahindra Krishi Vihar Centers and Consumer Behaviour Analysis of Weather Insurance in Karimnagar, Andhra Pradesh", submitted to the School of Agribusiness Management, Acharya N.G. Ranga Agricultural University, Rajendranagar, Hyderabad in partial fulfillment of the requirements for the degree of Master of Agribusiness Management (M.A.B.M.), is the result of original work done by me.*

*Date:*

*Place: Hyderabad*

**(A.E. Kamal Kumar)**

## **ACKNOWLEDGEMENTS**

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## EXECUTIVE SUMMARY

Insurance has gained popularity in the recent days. The popularity has gained not only in Life Insurance but also in the Crop Insurance. Crop Insurance has popularity since farmers are suffering from unnatural conditions like drought, floods, diseases etc., Keeping in view these vagaries of weather ICICI-Lombard a General Insurance Company has launched a comprehensive 'Weather Insurance' policy to protect the farmers from the problems arising due to weather calamities.

This is a project with hands on experience of selling weather insurance on a pilot basis. ICICI-Lombard has tied up with Mahindra Shubh Labh Services Limited (MSSL) for distribution of weather insurance products. MSSL is a agro services and a consultancy company. They operate with the help of franchisees who act as the hub for all their activities. The activities done by the franchisees are enrolling farmers for their services, managing a team of technical advisors who visit the farmers fields and suggest on agricultural practices, documentation work for getting loans and supply of inputs.

The main objectives of the include :

- To sell and promote the Weather Insurance (WI n) products.
- To study the response to the Weather Insurance policy and its features.
- To suggest the revised models for reaching the larger customer base.

The areas selected for selling and promotion of the weather insurance product are Vemulawada and Boinpally mandals of Karimnagar district. For selling and promotion the methods that have been followed were Issuing of Postcards to farmers, Conducting farmers meetings, Door to door campaigning etc.,

For collecting the data the research approach followed was observation method of the survey and the tool was a structured questionnaire with both closed-ended and open-ended questions.

The questionnaires were prepared for the collection of data from the farmers regarding the weather insurance. The data was collected from various respondents and analysis was made about their awareness levels regarding the weather insurance and their willingness to purchase the weather insurance policy.

The analysis revealed that the large farmers were having more awareness than the small and the marginal farmers because they update their knowledge regularly through various means and always they were in contact with the concerned personnel.

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## **Chapter I**

### **INTRODUCTION**

The nation's quest for a comprehensive and effective solution to manage Indian agriculture's risk is as long as independence. This has been manifested through massive technology upgradation initiatives on the one hand, to crop insurance schemes on the other. While substantial gains have been made on account of the former, which is also well epitomized through the widely known 'green revolution', there is a lot more work needed on the latter.

#### **CROP INSURANCE :**

With only 15 percent of the cropped area under irrigation, farmers, especially in the rain-fed regions - bear considerable risk from adverse weather conditions. In order to protect farmers from this risk, a comprehensive crop insurance scheme was introduced in 1985. At present, ten kharif crops, viz. paddy, jowar, bajra, groundnut, sunflower, sesamum, nigerseed, soybean and ragi and seven rabi crops, viz. jowar, wheat, gram, safflower, sunflower, summer groundnut and summer paddy are included in the scheme.

Crop insurance in India accounts for less than 2% of income generated from agriculture in a year. This, despite the fact that more than 60% of India's labour force is dependent on agriculture, and the remaining two sectors — industry and services — derive a large part of their demand from agriculture.

Further, Indian agriculture is still subject to uncontrollable risks, prime among which are the vagaries of the monsoon. A large part of crop insurance happens in the kharif season, which is critically monsoon-dependent.

Agricultural activities are exposed to controllable and uncontrollable risks. Controllable risks are typically pests, diseases, weeds, and seed material.

Uncontrollable risks are rainfall — it's deficit, excess and distribution, extreme temperature conditions, hail incidences, extreme wind speeds, humidity variations etc.

Controllable risks can be mitigated with the use of technology, effective monitoring and appropriate usage of inputs. However, the challenge lies in providing risk mitigation measures for uncontrollable risks. In India, efforts have been on since the late seventies, when the first crop insurance scheme was launched. It was a comprehensive scheme protecting farmers against uncontrollable risks as well controllable risks. It was again launched during Rabi season of 1999-2000, in the form of National Agriculture Insurance Scheme.

The objectives of the scheme are as under: -

- To provide insurance coverage and financial support to the farmers in the event of natural calamities, pests & diseases.
- To encourage the farmers to adopt progressive farming practices high value in-puts and higher technology in Agriculture.
- To help stabilize farm incomes, particularly in disaster years.

These schemes looked promising and also achieved its objective of providing relief to farmers. However, the schemes did not achieve the long-term objective of providing a sustainable solution for Indian agricultural industry.

Firstly, it covered not only uncontrollable risks but also controllable risks. Secondly, the total claims disbursed were about five times the total premium. Thirdly, high administrative expenses coupled with inordinate delays in claims settlement, since each claim had to be individually assessed made the scheme unsustainable in the long term. This led to instances when farmers received the claim amount after twelve to eighteen months, defeating the very purpose of insurance.

The National Agriculture Insurance Scheme experiment proved that a sustainable crop insurance program would succeed if:

- ❖ Cover is made available only for uncontrollable weather risks
- ❖ A solution is found for assessing the probability of risk
- ❖ Quantification of losses and claims settlement procedure is pre-defined and calculated from an independent data source
- ❖ Administrative costs are kept to the minimum

## **WEATHER INSURANCE :**

ICICI Lombard a General Insurance Company has launched a comprehensive Weather Insurance product to protect the farmers from the problems arising due to vagaries of weather.

This weather-index based insurance product developed by ICICI Lombard with support from ICICI Bank and the World Bank (WB), is a revolutionary step in this direction. It covers the likelihood for diminished agricultural output/yield resulting from a shortfall of any of the pre-defined weather parameter for a specific geographical location and time period, subject to a maximum of the Sum Insured. It seeks to address the issues in the traditional crop insurance schemes.

It is made available against the uncontrollable factors, essentially to mitigate the weather risks. The Metrological Department keeps detailed, daily records of the weather parameters such as rainfall, temperature, humidity and other weather conditions. The correlation between the deviations in weather conditions and the effects of the same on crop yield can be effortlessly ascertained by statistical methods.

Further as the payout is determined on weather conditions for a defined period of time, and not on the actual loss on the field, there are no gray areas on whether a payout has to be made by the insurance company and how much needs to be paid. Thus, there is no incidence of adverse selection or moral hazard. It entails low administrative expenses and pays out claims in a few weeks time after the period of insurance.

The Company has conducted some successful Weather Insurance Pilots. The notable ones being in Mahabubnagar at the eastern end of Andhra Pradesh, bordering Karnataka, where it sold policies for protection against deficit rainfall for groundnut and castor farmers. The district had experienced three consecutive droughts over the past few years. It was done with the help of BASIX (one of India's largest micro finance institutions with nearly 10,000 borrowers in nine states) and KBS Bank (Krishna Bhima Samruddi Local Area Bank). The other one being in Aligarh for excess rainfall.

The Company is presently working on various pilots covering various products across the country for weather vagaries such as excess rainfall, extreme temperature conditions and humidity levels.

Weather insurance is a well-known tool for agriculture insurance in other developed economies and has been used successfully by various developmental organizations in various developing economies as well. With the launch of this product, farmers in India can protect themselves against extreme changes in weather patterns.

According to a senior economist at the WB's Agricultural and Rural Development Department: "This pilot program shows how non-irrigated farmers in developing countries can protect their livelihoods. Weather insurance does not suffer from the usual moral hazard and adverse selection and high administration cost problems of traditional crop insurance, and it is therefore better suited to small farmers in rainfall-dependent countries such as India."

The success of the weather-based insurance in India would require substantial investment of resources to analyze the data and develop models across the various products and regions for the various weather parameters. The weather-based insurance has the potential for providing a sustainable solution for Indian agricultural industry.

## **MAHINDRASHUBH LABH SERVICES LIMITED**

Mahindra ShubhLabh Services Limited is a subsidiary company of Mahindra & Mahindra Limited, India's largest farm equipment company with a group turnover of about Rs. 4000 crores.

Mahindra ShubhLabh Services Limited has launched a revolutionary concept in agribusiness under the brand Mahindra Krishi Vihar. Through this business concept it attempts to bring together all the factors of production in agriculture with the objective of improving farming profits through crop specific and region specific farming solutions.

### **Opportunities in Food and Agriculture:**

Mahindra ShubhLabh Services Limited is pursuing in creating the value opportunities in the food and agriculture chain through a two-fold thrust.

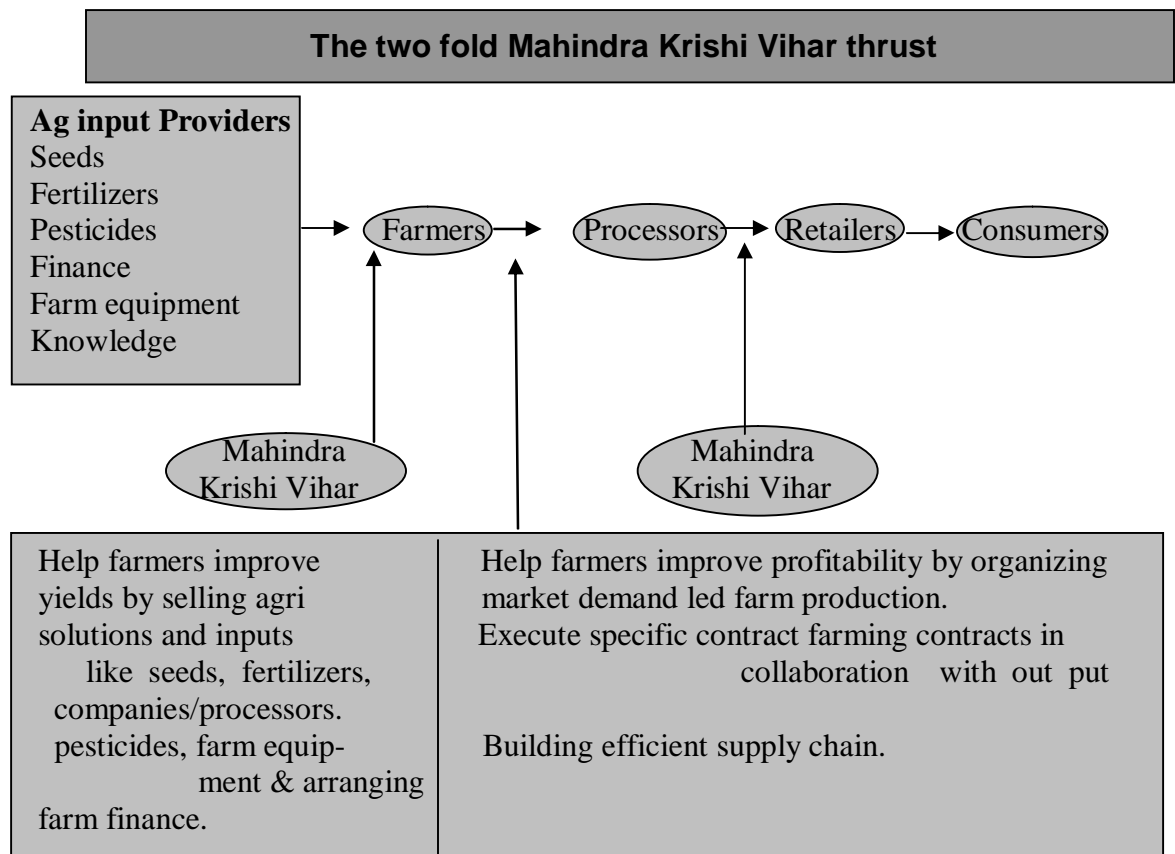
1. Providing a complete range of products and services aimed at improving farm productivity.
2. To establish market linkages to optimize the commodity supply chain.

As the first provider of integrated agri-services across diverse geographies, Mahindra ShubhLabh Services has accumulated a vast body of knowledge and experience which would help in providing superior solution to the farming community.

Mahindra ShubhLabh Services Limited is rapidly establishing Mahindra Krishi Vihars business across the country by leveraging:

- The strong **Mahindra** brand
- Over 7,00,000 strong Mahindra tractor customer base
- The 400+ National Mahindra dealer network
- Unbiased position with regard to most agri-inputs

Mahindra Krishi Vihar's business portfolio comprises of products and services making it a **One Stop Shop** for all farming needs.



## **Mahindra Krishi Vihar Product Portfolio :**

### **Agri Input Retailing:**

India's Agri input market is estimated to be over Rs.30, 000 crores. India's consumption of seeds and pesticides in comparison with other countries indicates a huge potential for market growth. Many farmers do not use quality agri inputs. Others tend to under use, or over use or wrongly use agri inputs thus leading to higher costs and lower yields. In the interiors of rural districts, farmers do not get access to a wide choice of agri-inputs. These farmers are at a disadvantage in terms of price and availability.

Mahindra Krishi Vihar's extension staff is able to provide support and guidance to the farmers in selection of product category and usage of products in terms of crop health ,environmental and human safety.

Mahindra Krishi Vihar brings new products to farmers in the form of seeds ,latest agro chemicals and bio fertilizers and micro nutrients. Mahindra ShubhLabh Services partners with almost every leading seed, fertilizer and pesticide company in the private as well as public sector to promote environmental friendly measures of pest control in farming systems.

Mahindra Krishi Vihars educates farmers and farm workers on the safe use of pesticides.

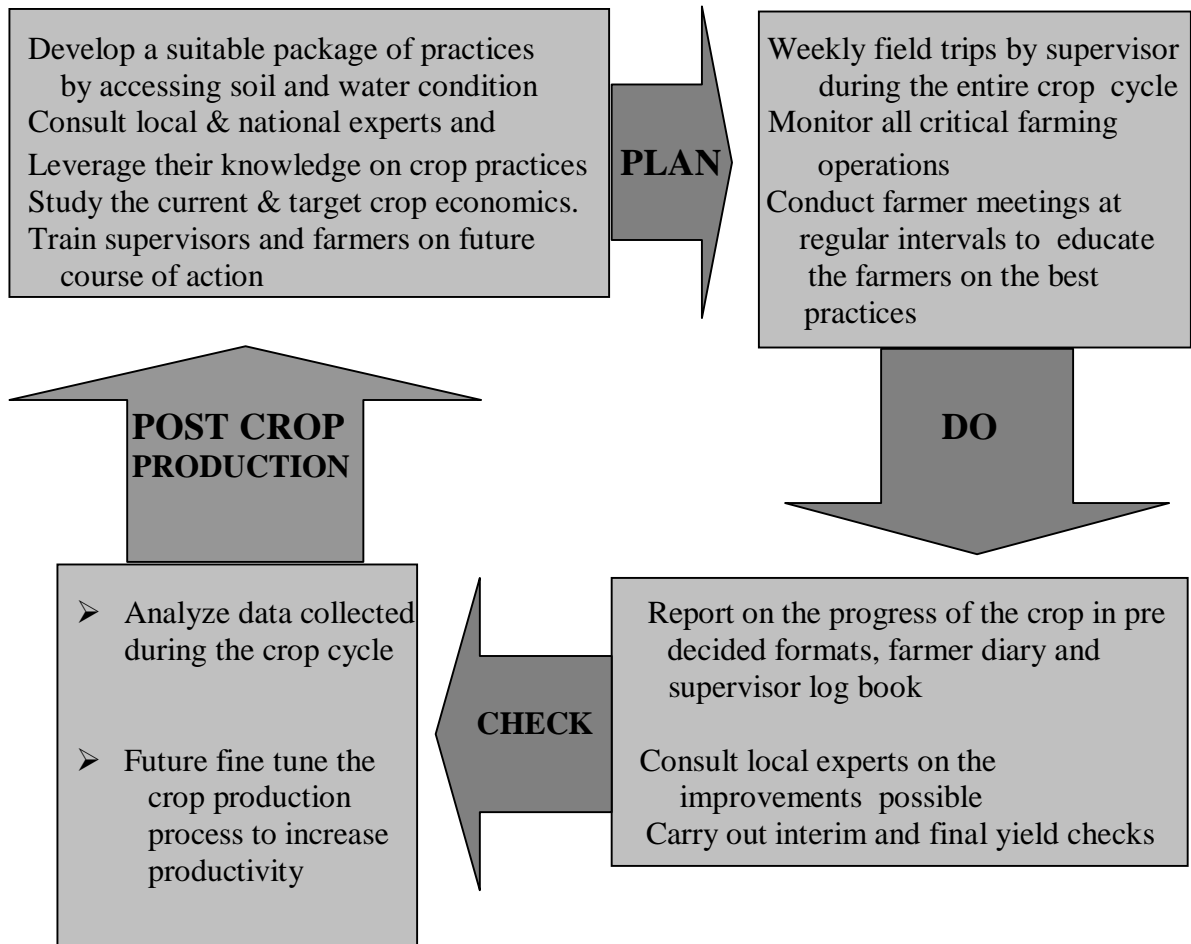
## **Farm Solutions:**

India has a large portfolio of crops but its yields are a fraction of world-class yields. This is largely due to lack of adoption of scientifically developed package of practices. At Mahindra Krishi Vihar they survey farming practices and agricultural produce markets in each territory to understand the opportunities for profitability improvement.

This objective can be achieved through :

- ✓ Introduction of new crops
- ✓ Increasing yields
- ✓ Reducing farming inputs
- ✓ Improving farmer price realization

The typical Farm Solution Programme would run through a **Plan-Do-Check-Act** cycle of continuous improvement.



## **Farm Mechanization:**

The growth in farm mechanization in India has been limited to the usage of tractors and basic tractor drawn implements. On account of restricted period of usage and high capital investment farm machinery for specialized operations like planting, harvesting crop spraying is beyond the means of Indian farmers.

Using specialized farm machinery can substantially reduce consumption of water, seed, fertilizers and chemicals. This also contributes to yield improvement. Mahindra Krishi Vihar introduces advanced tractor drawn or self-driven farm equipment to enable this. Farming being a time and climate sensitive process, critical farm operations like land preparation, sowing, crop protection, need to be completed within a narrow window of time. Mahindra Krishi Vihar's fleet management system allows the farmers to book the machine for his use on specific dates and the high productivity equipment allows the operation to be completed efficiently as scheduled.

## **Farm Finance:**

Most of the farmers don't have easy access to institutional finance and hence resort to high cost local finance. This access is limited by the lack of awareness among farmers and the reluctance of institutions to lend to the farmers for fear of defaults.

**Mahindra Krishi Vihar** produces financial institutions a channel for agricultural financing and farmers access to low cost institutional finance. This lending process offers the farmers minimum documentation, quick sanctions and attractive interest rates. The financial institutions have a safer portfolio and lower overheads. Access to cheaper finance significantly increases the profitability of agriculture operations because of investment in better farm inputs and farming practices.

## **Market Access:**

In order to improve farm profits Mahindra Krishi Vihar encourages farmers to grow crops specifically required by institutional buyers such as food processors, retailers, commodity traders and exporters. Through the method of contract farming, farmers sell the produce directly to the institutional buyers, thus reducing the market risk to a great extent and improving price realization.

Contract farming is a **win-win** situation for all the partners. The buyer gets the raw material of the desired specifications at an attractive price. The farmer is able to realize better profits through a market linkage and access to finance and technology.

## **Mahindra Krishi Vihar Network:**

All the products and services are provided to the farmers through a dedicated channel of franchises. Mahindra Shubhlabh has its presence in almost all agriculturally progressive states of the country. The company aims to have 5600 outlets across 180 districts nationwide. Each district will have over 25 outlets to provide service to the farmers.

**Mahindra ShubhLabh Services Limited** are confident that over a period of time **Mahindra Krishi Vihar** will become the premier point of access to the farming community.

## **ICICI-Lombard**

ICICI-Lombard General Insurance Company Limited is a 74:26 joint venture between ICICI Bank Limited, India's second largest bank and US\$ 26 Billion Fairfax Financial Holdings Limited, diversified in financial services, general insurance, reinsurance, insurance claims management and investment management. Lombard Canada Ltd., a group company of Fairfax Financial Holdings Limited, is one of Canada's oldest property and casualty insurers.

ICICI Lombard combines the forte of two of the most trusted names in the financial sector. ICICI Bank's strong brand equity, extensive distribution network and sound technological infrastructure to serve customer needs along with Lombard Canada's domain knowledge, product innovation and business processes based on international practices in the insurance business.

To the Indian consumer this means the security of strong parentage with access to a range of customized and innovative insurance solutions supported by internationally benchmarked service levels.

### **ICICI Lombard:**

ICICI Lombard brings the following value proposition to its customers:

#### **1. Risk Advisory Services**

ICICI Lombard provides international quality risk advisory services including safety audits, environment audits, insurance portfolio analyses and risk assessment studies. As its customer's partners in managing risk, it helps them understand where risks lie and how to manage them.

#### **2. Simpler & Faster Documentation**

Unlike most insurance policy documents that are worded in heavy technical terms, its Tariff regulations are worded in simple understood English. This provides customers with a better understanding of product coverage, exclusions and endorsements, thereby reducing the time taken in filling out the proposal forms.

### **3. Seven Days For Claims Settlement**

ICICI Lombard bring superior claims servicing systems to its customers. Its unique feature is that it is having strict service level agreements with a single survey firm ensuring seamless, uniform, and faster claims servicing across the country, which means it will settle admissible claims within seven days from the date of receipt of all relevant documents.

It is having tie up with the Cunningham Lindsey; international survey firm that operates in 60 countries with well-established network has a reputation to assess high value property losses across the world. For the Indian market they are associated with Thapar, Srinivasan and Kapoor Private Limited. (TSK).

### **4. Re-insurance**

ICICI Lombard has reinsurance treaties with AAA and AA+ rated re-insurers like Swiss Re, Munich Re, and others for its re-insurance programme in order to provide the highest level of risk security. This ensures its capability to settle large claims within a short period of time.

They have also entered into excess of loss treaties with leading re-insurers of the world in order to reduce losses during catastrophic event.

### **5. Team Growth**

ICICI Lombard is having 100 relationship managers and 850 Insurance Advisors working from 20 locations across the country. This will soon be expanded to 33 locations, covering the length & breadth of the country. The customer can get in touch with the company at all times, through 24x7, state-of-the-art call centres and the company website.

## Comprehensive Product Range

ICICI Lombard has a major presence in the following insurance segments:

- **Personal solutions** - Motor, Home, Personal Accident cover
- **Business solutions** - Fire, Inland transit, Engineering, Performance Guarantee, Merchant cover, Marine and Aviation Hull, etc.
- **Travel and Health solutions**
- **Project solutions** - Contractor's / Industrial / Erection All Risk, etc.
- **Liability solutions** (Directors & Officer's Liability, Errors & Omissions, Product Liability, Public Liability, Professional Indemnity)
- **Exports solutions** (Export Import, Export Credit)
- **Rural solutions** (Tractor, Weather Index, Janata Personal Accident)

ICICI Lombard has already introduced a slew of products and has emerged as a major player in the corporate and retail segments driven by a well-balanced portfolio. The Company has some of the largest industrial houses and companies representing diverse industries as its customers.

ICICI Lombard has also made forays into specialized products, those that require complex product development and strong underwriting skills. One area is the **comprehensive weather index insurance** that protects the insured against the vagaries of nature. This product is based on scientific hard data making the authentication and payment of claims quick and efficient. This was developed in association with the **World Bank** and **ICICI Bank**. Other areas requiring complex product structuring include Representations and Warranties, Sureties and Credit Guarantee Insurance.

## **Group History About :**

### **ICICI BANK LIMITED**

ICICI Bank is India's second largest bank with total assets of over Rs. One hundred thousand crores (1 trillion), a network of about 450 branches/ offices and over 1,700 ATM s. ICICI Bank offers a wide range of banking products and financial services to corporate and retail customers through a variety of delivery channels. Through its specialized subsidiaries and affiliates it offers services in investment banking, life and non-life insurance, venture capital, asset management and information technology.

ICICI Bank's equity shares are listed on the stock exchanges at Mumbai, Chennai, Delhi, Kolkata, Vadodara and at the National Stock Exchange of India Limited (NSE). Its American Depositary Receipts (ADR s) are listed on the New York Stock Exchange (NYSE). ICICI Bank is the first Indian company and one of the first financial institutions from Asia to be listed on the NYSE. It is the only Indian company to be rated higher than the sovereign rating by Moody's.

ICICI Limited was formed in 1955 with the initiative of the World Bank, the Government of India and representatives of Indian industry. The principal objective was to develop a financial institution for providing medium-term and long-term project finance to Indian businesses.

In the 1990s, ICICI Limited transformed its business from a financial institution offering only project finance to a diversified financial services group offering a wide variety of products and services, both directly and indirectly through a number of subsidiaries and affiliates like ICICI Bank.

In 1994, ICICI Bank was launched as a wholly owned subsidiary of ICICI Limited. Subsequently, its shareholding in the bank was reduced to 46% through a public offering of shares in fiscal 1998. An equity offering in the form of ADR s listed on the NYSE in fiscal 2000. It has acquired Bank of Madura Limited in an all-stock amalgamation in fiscal 2001 and secondary market sales by ICICI Limited to institutional investors in fiscal 2001 and fiscal 2002.

On March 31, 2002, ICICI Limited (and its subsidiaries ICICI Capital Services Limited and ICICI Personal Financial Services Limited) merged with ICICI Bank.

### **Lombard Canada Limited**

Lombard Canada Limited is responsible for the insurance management services for all of the Lombard Group's commercial, personal, and specialized insurance companies. Exceeding US\$500 million in annual sales, Lombard Canada Limited also provides insurance management services for external clients including the Tokio Marine & Fire Insurance Company Ltd.

Lombard General Insurance Company of Canada underwrites commercial lines business through select brokers across Canada. Lombard General brokers have access to one of the industry's most powerful underwriting tools:

Business Choice, a specialized point of sale software developed by Lombard Canada. Beyond providing small and medium sized businesses with the specialized insurance coverage, Lombard General also offers custom marketing services and specialized coverages designed to meet the needs of businesses across the country.

## WEATHER INSURANCE (Win)

Weather Insurance is an insurance cover against losses incurred due to uncertainties in weather. It can be used to hedge reduced production, reduced demand, decreased capability to pay back loans, vulnerability of assets to damage etc., due to weather.

### Weather Parameters :

Often weather insurance is misunderstood to be a rainfall index based insurance cover but rain is just one of the parameters that weather insurance covers.

Weather Insurance is mainly for losses due to vagaries of weather like:

Parameters Covered	Nature of Losses
Precipitation 1.Rainfall 2.Snow 3.Hail Temperature Wind Sunshine	Production loss Revenue loss Asset loss Loss of livelihood

### Estimation of Weather Parameters:

The correlation between a weather phenomenon and loss can be obtained by getting the data of the clients past operations and run it along with weather indices that are expected to have a high degree of correlation. If in the first instance high correlation is not achieved then adjustments are made to the index and then again it is checked for correlation, thus to a great extent it is an iterative process.

In certain cases, like in agriculture where agronomists through decades of research have already established correlation between weather and yield, those inputs are taken to construct structures.

### **Time Period:**

A weather insurance policy is valid for a time period for which the insured seeks cover. This could last for the complete time period during which the insured is engaged in the activity or only a part of that.

For example a farmer may wish to take a comprehensive Weather insurance cover lasting from sowing to post-harvest stage. He may wish to have a structure which pays-out in case

1. there is a deficient rainfall during the vegetative stage
2. temperature dips below a specific limit during flowering &
3. there is excessive rainfall during the harvest stage

On the other hand a farmer may like to insure only against deficient rainfall during the vegetative stage and may want to forego covers for flowering and harvest stage.

The key point to be noticed here is that the structures indicate a payout due to deviations in weather conditions for the agreed time period and not the actual consequential loss.

### **Weather Insurance-Areas of Application:**

Agriculture is merely one of the applications of weather insurance. In USA, where weather derivatives actually started in the second half of last decade, the most popular application is for hedging reduced demand for energy due to temperature fluctuations.

The areas of application are:

- Agriculture and Live stock
- Agri-business - Agri-Inputs
  - Food Processing
- Energy (Power Utility Companies)
- Travel, Tourism, Sports & Leisure
- Health & Pharmaceuticals

The key point is that there is a need for insurance companies to see that the policy seeking a cover has a direct insurable interest. Companies providing agri-inputs such as fertilizers, seeds, pesticides, crop protection loans have a direct impact on sales as well as an indirect interest (loss of production for clients).

### **Eligibility:**

Weather Insurance can be taken irrespective of the type of industry or economic activity where production and revenue are impacted by one or more weather parameters.

### **WIn-Cover- Sum Insured:**

The total sum insured would be one of the factors that determine the price/premium to be paid. Hence correct estimation of the sum to be insured becomes crucial. This can be calculated by estimating the maximum loss that would occur in the worst possible scenario because anything above this would not make economic sense. Apart from this one need to see how much loss he can absorb so that he can deduct that from the maximum probable loss to decide about the sum to be insured.

The claim would be assessed based on the reference Meteorological Station operated .by Indian Meteorological Department (IMD) or any other third party that both the insurer and the Insurance Company agree upon at the time of issuing the policy.

As soon as the cover period is over and official weather data is released claim is calculated based on the agreed indices and payout structure.

### **Actual Weather Conditions:**

There is no necessity for the insured parties to collect weather data. But in case someone is interested in cross verification at certain locations local newspapers print such information regularly. They can also approach IMD and get the data. However if any incidental costs involved in acquiring such information would have to be borne by them.

### **Claim Settlement:**

Payment is made within fifteen days of release of data by IMD, after the expiry of the cover period.

In case of weather insurance the basis of claim assessment and payout is not the actual loss that is incurred during the cover period. The sole criterion is measurement of the agreed weather indices.

### **Examples of Weather Insurance :**

#### **Agriculture :**

ICICI-Lombard issued a master policy to Krishna Bhima Samrudhi Local Area Bank in Andhra Pradesh to provide cover for groundnut and castor farmers for deficient rainfall. After giving weights to various rainfall periods a normal rainfall index was calculated. Payouts were to be made for deviations on the lower side from then normal index, which increased for higher deviations.

### **Agricultural Inputs :**

ICICI-Lombard is in the process of structuring 'money back coupons' to Weather Proof fertilizers. The insurance cover would be in the form of a policy to the company selling fertilizers, who would give an insurance coupon with every bag of fertilizer. The coupon would be redeemable for cash in case of deficient rainfall.

### **Rural Finance :**

One of the public sector banks has expressed interest in being offered a cover for their rural loan assets. Bank has observed that there is a high correlation between rainfall and the repayments that they receive not only from farmers but also from the Rural Non Farm Economy (RNFE) players.

## Chapter II

### RESEARCH METHODOLOGY

Marketing Research is the systematic and objective search for and analysis of information relevant to the identification and solution of any problem in the field of marketing.

Almost every problem of Marketing involves various people. Therefore ideas relative to the problem and the solution can be approached through the Marketing Research.

#### **Marketing Research Project Approach:**

- Defining the situation/problem
- Specifying the Research Objectives
- Preparing the list of the needed information
- Designing the data collection project
- Selecting a sample type
- Determining the sample size
- Organizing and carrying out the field work
- Analyzing the collected data and reporting the findings

**Objectives of the study:**

- To sell and promote the Weather Insurance (WIn) products.
- To study the response to the Weather Insurance policy and its features.
- To suggest the revised models for reaching the larger customer base.

**Research Design:**

For the present study the research design adopted was descriptive studies of conclusive research.

**Data Sources:****Primary Data:**

Primary data required for the study was collected from both the loanee farmers of MSSL and other farmers in Karimnagar district .

**Secondary Data:**

Secondary data for the study was collected from various sources like journals, magazines, websites, etc.

**The Instrument:**

For collecting primary data the research approach followed was observation method of the survey and the instrument/tool was a structured questionnaire with both closed-ended and open-ended questions.

In order to avoid incomplete questionnaire and inscrutable handwriting, the questionnaires were not handed over to the respondents irrespective of their level of education.

**Study Area:**

The present study covered mainly ShatRajpally & Namiligondupally villages of Vemulawada mandal and Gundannapally, Dundrapally & Korem villages of Boinpally mandals in Karimnagar District.

**Sample Size:**

The sample size selected was 50 farmers from five villages by taking 10 farmers from each village.

**Sampling Method:**

Simple Random sampling method has been followed for arriving at a desired sample.

**Limitations of the study:**

Any work is always confronted by having various bottlenecks and hence the present study is not an exception to these inherent limitations.

- The survey has the limitation of limited area. Since the area surveyed included only five villages it cannot exactly represent the actual statistical data of the district.
- The sample size is also limited.
- Almost all the information obtained from the respondents is based on their recalled memory.
- Generalization of the results can not be made based on this study
- Statistical tools used in the analysis are elementary in nature

## Chapter III

### Results and Discussions

The areas selected for selling and promotion of Weather Insurance are Vemulawada and Boinpally mandals in Karimnagar district.

In Vemulawada the village selected for the purpose of selling and promoting the weather insurance is ShatRajpally. This village is the main hub for Mahindra Krishi Vihar. Most of the farmers belonging to these villages are the customers for the Mahindra ShubhLabh Services Limited.

#### **Selling and Promotion :**

For selling and promotion of weather insurance the methods that have been followed were :

- i. Issuing Postcards
- ii. Farmers Meetings
- iii. Door to door campaigns
- iv. Other methods.

#### **Issuing Postcards :**

ICICI-Lombard issues postcards which includes brief description about the weather insurance along with emblems of ICICI-Lombard and Mahindra ShubhLabh Services Limited. These postcards were designed to create some interest in the minds of farmers regarding the weather insurance policy.

The postcards were filled with the name and address of the farmers and posted. These cards were posted to the farmers who were growing cotton. The study revealed the farmers curiosity about the weather insurance.

The farmers who have received the postcards were privileged to have the cards with them and they have passed the message about weather insurance to their neighbours. The message was spread to all the farmers in village through the word of mouth.

### **Farmers Meetings :**

After the postcards have been issued a visit was made to the respective villages and farmers meeting was arranged.

The farmers were informed about the meeting well in advance so that it would be convenient for all of them to attend without fail. Farmers Meeting was conducted in the Gram Panchayat of the village where most of the farmers gather as a group. During this period the farmers were educated about the different products of weather insurance.

### **Door to Door Campaign :**

Apart from farmers meeting door to door campaigns were also arranged where in the houses of the farmers was visited along with the local dealer of Mahindra Krishi Vihar. The farmers were individually communicated about each and every aspect of Weather Insurance policy. Door to door campaign was the main tool where the actual selling of the product took place.

### **Other Method :**

Along with the above three methods the promotion work has been carried out at the dealers shop explaining about the product to the farmers who came to Mahindra Krishi Vihar centers.

## **Selling Process :**

After all the farmers in the selected area were informed about the product and those who were willing to purchase the policy were individually pursued and the selling process had been carried out.

The work involved filling of the name and complete address of the farmers purchasing the policy in the ICICI-Lombard insurance form. The form is filled with the details like the farmer's bio-data, total land holding, area under cultivation of the crop for which insurance is taken, premium to be paid and his signature.

The forms which contain the details of the farmers are retained by the company and the claim settlements are made accordingly.

## **Consumer Analysis :**

The questionnaires prepared were for the collection of data from the farmers regarding the weather insurance. The data was collected from various respondents who belonged to Vemulavada and Boinpally mandals in Karimnagar district.

Analysis was made under different headings which include :

- Awareness about crop insurance
- Number of people utilizing crop insurance
- The crops and the risk for which insurance is taken
- Awareness about weather insurance
- Number of people willing to take/accept weather insurance

## I. Awareness about Crop Insurance :

The sample size taken for collecting the information was 50 farmers from five villages that is 10 farmers from each village. Number of farmers who were aware of crop insurance was 100 percent.

### Awareness among farmers about Crop Insurance ;

Sl.No.	Name of the village	Sample Size	No of farmers aware of Crop Insurance	Percentage
1	Shat Raj Pally	10	10	100
2	Namiligonda pally	10	10	100
3	Dundra Pally	10	10	100
4	Korem	10	10	100
5	Gundanna Pally	10	10	100
<b>Total</b>		50	50	100

The table shows that cent percent of the sampled farmers in all the five villages selected for the study were aware about the existence of crop insurance.

The reason for such awareness was as :

All the farmers who have taken crop loan from bank were aware of the crop insurance, because it was compulsory to take the insurance if they wanted to take the crop loan. The remaining farmers have come to know about crop insurance through word of mouth from these farmers.

## II.Crops covered under Crop Insurance

The main crops that were grown in these areas are paddy, cotton, chillies and maize. Nearly 90 percent of the farmers have availed crop insurance.

### III. Willingness of the Farmers to take up Crop Insurance :

S.No:	Insured Crops	Number of Willing Farmers
1	Paddy	30
2	Cotton	20
3	Paddy and Cotton	15

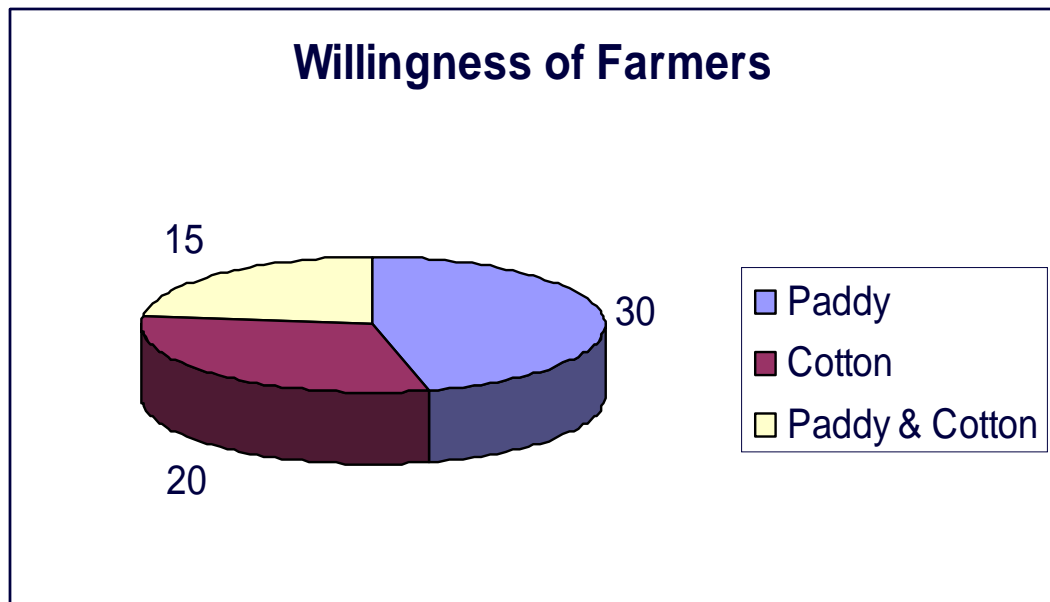


Figure-1

#### IV. Farmers taking Crop Insurance :

S.No:	Crops	Number of Insured Farmers
1	Paddy	40
2	Cotton	35
3	Maize	20
4	Chillies	25

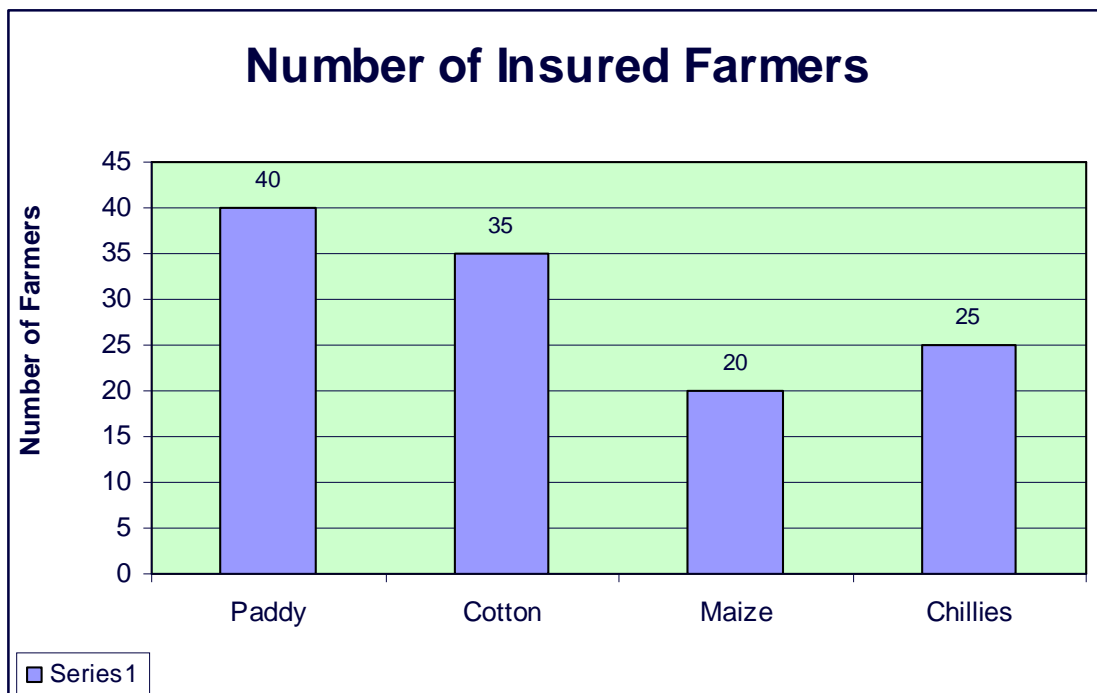


Figure-2

## **V. Farmers Opinions on Crop Insurance :**

Most of the farmers felt that the crop insurance may protect them the loss which they get as a result of pests, diseases and weather vagaries like drought, floods etc., The main disadvantage which most of the farmers felt that was the claim settlement. Till now not even a single farmer has received the claimed amount from the government for the crop insurance. And also the claim settlement is a very long process.

For the claim settlement a committee is appointed which include :

Agriculture Officer  
M.R.O  
Agriculture Scientist  
The Banker and  
Respected Company person

They visit the field of the farmer and inspect the yield parameters and based on their findings the claim amount will be sanctioned.

## **Risks in Crop Cultivation :**

The main crops that are grown in this area are paddy, cotton, chillies and maize. Except Maize all the other crops need sufficient amount of rainfall to grow and give sustained yields. The main risks which the farmer is facing are low rainfall leading to drought conditions, cyclones destroying the whole crop, serious disease & pest attacks on crops like Cotton, Paddy etc.,

### **Various Crops and Risks involved :**

<b>Crop</b>	<b>Risk-1</b>	<b>Risk-2</b>	<b>Risk-3</b>
Paddy	Rainfall	Pests	Diseases
Cotton	Pests	Rainfall	Diseases
Chillies	Diseases	Pests	Rainfall
Maize	Rainfall	Diseases	Pests

## PERCENTAGE OF LOSS IN YIELDS-RISKS

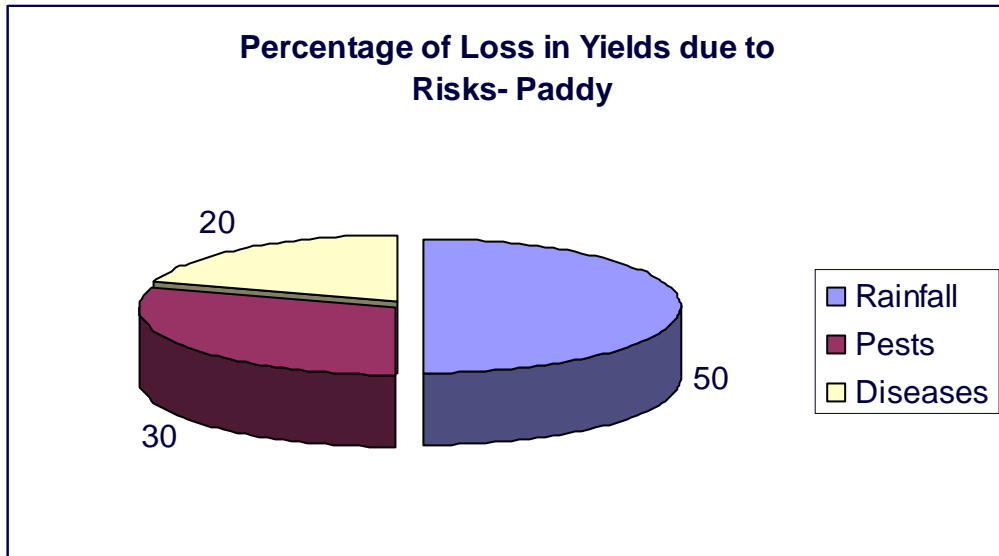


Figure-3

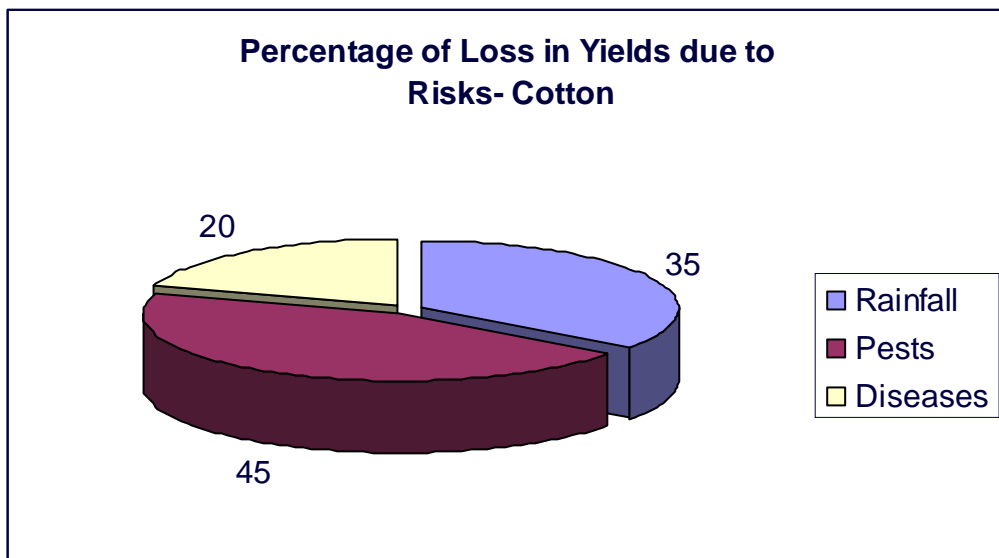


Figure-4

In Cotton the main pests in these areas are white flies, Pink bollworm and American bollworm. In Chillies thrips and mites are the major pests. In Paddy Brown plant hopper (BPH) is the major pest. These risks can be controlled to some extent, but the rainfall is an uncontrollable risk. Out of 50 farmers 90 percent of farmers were ready to accept the product that would cover only uncontrollable risks.

### **Awareness about Weather Insurance :**

Very few farmers were aware of weather insurance in the study area. They have come to know about this policy through the local dealer. The main advantages which the farmer thought he would get from weather insurance are providing cover for crop from uncontrollable risks and quicker claim settlement. Most of the farmers who were growing Paddy and Cotton were willing to take the weather insurance policy.

The premium which they were willing to pay was up to 4 percent of the total sum insured for a particular crop. The best channel which the farmer thought from which he can buy the insurance policy was either the bank or the local dealer.

## Findings:

- The land holdings and the type of crops grown by the farmers plays important role in accepting the weather insurance.
- Education and Income levels of the farmers also play a major role in creation and adoption of insurance policies.
- People who are qualified up to P.G., Degree and Intermediate are more aware about insurance.
- Farmers who were having land holdings of less than 1 acre are not interested in weather insurance and they are not aware about the benefits they would get from it.
- Only a few landless laborers are aware of crop insurance. They have come to know about this from their Landlords.
- Most of the small and marginal farmers expressed their inability to pay the premium.
- Some of the large farmers have opted for the weather insurance, while the rest have not adopted any insurance scheme.
- Most of the farmers who have taken crop loans from banks were forced to take the crop insurance policy since it was compulsory for them to take the insurance if they wanted loan from the bank.
- Small farmers are having less awareness about the weather insurance.
- Most of the medium and large farmers were aware about weather insurance and a very few of them have gone for it.
- Employees and businessmen who have alternate income from agriculture are aware of weather insurance but they have not gone for it.

- On the whole it is felt that farmers are less aware about the weather insurance. And only a few of them are approaching the institutional employees for taking the weather insurance policy.
- The information flow about the insurance is mainly through friends, colleagues and neighbors. Institutional employees are also playing active role in creating awareness. Newspapers and T.V. plays a minor role.
- Farmers expressed their opinion that they lost faith in insurance companies because the settlement of claims took a very long time and involves lengthy procedures.
- Most of the farmers expressed that none of them have received the claim amounts from the banks even though they have suffered yield losses due to drought conditions last year.
- From the last 3years Agricultural situation was worst in the district, people are expressing their interest in weather insurance.

## **Chapter IV**

### **Suggestions:**

- Build awareness about the organization, as most of the people in rural areas are ignorant about its existence.
- The farmers are under the impression that all private banks went bankrupt, this negative perception should be overcome.
- Gain the confidence of the people by increasing the number of deposits and providing more loans.
- Details about the institution should be given in the form of pamphlets, calendars in local language, so that each and every person can easily understand it.
- Friendly environment should be provided to the farmer.
- More publicity is needed to increase the awareness among the people.
- Publicity in the form of conducting field visits, Gramasabha, group meetings etc., where a clear-cut explanation regarding prospects of insurance can be explained in detail.
- Farmers are more interested in weather insurance. Therefore a detailed picture about terms and conditions and benefits of it should be highlighted.
- Village Organizations, SHGs, Opinion leaders and other associations help can be taken in motivating the people.

A unique weather insurance policy awareness programme should include promotion techniques like :

### **Suitability**

The policy should be designed and offered specially for crops. It is a pure risk policy offering insurance protection for a limited period. At the same time it offers some return on the premium paid.

### **Salient Features about the policy should be highlighted such as:**

1. It is a pure term insurance policy

a. Only single premium payment option is available and the premium is based on the total sum insured for that crop.

b. The premium amount to be paid is fixed for one acre which is taken as one unit.

2. The term policy is valid for only one season.

If any weather vagaries occur claim settlement is made accordingly.

### **Benefits of the policy should be classified as:**

#### **➤ Claim settlement :**

The claim would be assessed based on the reference Meteorological Station operated by Indian Meteorological Department(IMD) or any other third party that the farmer would agree at the time of issuing the policy. Hence there would not be any bias in claim settlements.

➤ **Payment :**

It might be observed that the yield losses in the farmers field was not to the extent it was anticipated, but there was a deviation in the agreed weather indices. Even then the payment is made because the sole criteria of agreed weather indices is met.

➤ **Short Period :**

The claim payments of weather insurance are made with in a short period of time unlike various other companies.

Payment is made with in fifteen days of release of data by IMD after the expiry of the cover period.