

## CHAPTER – VI

### SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

#### 6.1 INTRODUCTION

The main activity of the rural sector in India is agricultural. Food being the first and the foremost basic need of the increasing population, the agriculture sector is considered to be the foremost concern of the government's economic and social development plans. Agriculture all over the world is burdened with risk and insecurity. In spite of several schemes designed for promoting and protecting the interests of cultivators, reports of suicides by several agriculturists due to loss of income for various reasons including crop failure and the after-effects of globalization, are appearing in the press now-a-days.

Agricultural production and farm incomes in India are frequently affected by natural disasters such as drought, floods, cyclones, storms, landslides and earthquakes. Agricultural insurance is a means of protecting the agriculturist against financial losses due to uncertainties that that may be caused from named or all unforeseen perils beyond their control. Agriculture insurance is not restricted to crop insurance only, although it is one of the most important and major constituents of agricultural insurance. Therefore, the various protective schemes have been drawn up by the government to cover risk of agriculture through insurance like the National Agricultural Insurance Scheme, Coffee Insurance Scheme, Varsha Bhima, Weather Based Crop Insurance Scheme, and Rainfall Insurance Scheme. The most prominent among the above schemes is the National Agricultural Insurance Scheme (NAIS) which has been implemented from Rabi 1999-2000 seasons.

National Agricultural Insurance Scheme has been conceptualized as a comprehensive tool to cover yield losses due to natural non-preventable risks like flood, inundation, landslide, drought, pest and diseases, natural fire, lightning, storm, hailstorm, cyclone, etc and provides for greater coverage of farmers (loanee and non-loanee), crops (all food and oilseed crops and annual horticultural/commercial crops) and risk commitment. According to the data published by the Department of Agriculture and Co-operation, Ministry of Agriculture, Govt. of India, New Delhi, the NAIS has been implemented by 24 States and 2 Union Territories. The performance during the last twenty five crop seasons (i.e. from Rabi 1999-2000 to Rabi 2011-12) shows that around 1,930 lakh farmers have been covered over an area of 2,916 lakh hectares insuring a sum amounting to Rs.2,55,574 crore and subsidy in premium amounting Rs.790 crore have been provided to small and marginal farmers. Claims to the tune of about Rs.23,441 crore have been settled against the premium income of about Rs.7,606 crore benefiting about 503 lakh farmers.<sup>1</sup>

Crop insurance makes up the loss or damage to growing crops resulting from a variety of causes. In times of natural calamities, arrangements are usually made to give a helping hand to the farmers by way of relief funds and concession in revenue. Crop insurance support is provided to all the farmers who obtain credit from co-operative credit societies, commercial banks and Regional Rural Banks for the purpose of increasing agricultural production. In this background, the study is made to evaluate the farmers' awareness level, attitude and satisfaction level about crop insurance scheme.

---

<sup>1</sup> <http://www.agricoop.nic.in>

This chapter provides the summary of the study, major findings, suggestions, scope for further research, and conclusion. The first section provides the summary of the study and the second section gives the summary of findings based on earlier chapters of the study. The third section presents the suggestions and the fourth section mentions the scope for further research. Conclusion is given in the fifth section of this chapter.

## **6.2 SUMMARY OF THE STUDY**

The study has been presented in six chapters. The first chapter deals with the design of the study. It presents the statement of the problem, review of literature, significance and scope, objectives of the study, operational definition of concepts, hypotheses, geographical area, period of the study, sampling design, methodology for collection of data, framework of analysis, limitations, and scheme of the report. The evolution of agricultural insurance in India, growth and development of insurance industry in general and the need for agricultural insurance has been discussed in the second chapter. In addition, it also presents the crop insurance history, provides in-depth details about features, operational modalities and business snapshot of the National Agricultural Insurance Scheme on overall India level as well as at Tamil Nadu level.

The third chapter discusses the geographical profile of Madurai District like choice of study area, population, rainfall, land utilization, cropping pattern, irrigation, and area of investigation. This chapter also records the various characteristics of farmers such as socio-demographic profile of farmers, type of house, access to household amenities, household assets ownership, ownership of land

and landholding pattern, crops grown, livestock holding, occupation and source of income, yearly income, experience in farm activities, and the like. In the fourth chapter, analysis like awareness about crop insurance schemes by the sample farmers, the level of awareness, reasons for insurance of crops, preference of aid or relief during crop losses, etc. have been attempted in detail. The attitude of farmers has been tested and their satisfaction level has been measured in the fifth chapter of the study. The sixth chapter provides the summary of findings and gives important suggestions for effective functioning and modification of crop insurance scheme.

The study uses both primary and secondary data. Secondary data were collected from books, magazines, newspapers, theses, reports and print as well as online journals. Growth rates were computed for analyzing the secondary data. Primary data were collected from the sample respondents in Madurai district. It is the main source of the study. A total sample of 371 respondents (after editing 360 comprising of 40 each from nine notified blocks selected) from a list of 13 taluks have been collected by adopting the two-stage stratified sample design. These data were analyzed by using statistical tools like, mean, standard deviation, chi-square analysis, Likert's five point scaling technique, and Garrett ranking technique method.

### **6.3 SUMMARY OF FINDINGS**

The following are the major findings of this study.

#### **6.3.1 Findings Based on Farmers' Characteristics:**

One of the objectives of the study is to analyze the characteristics of farmers. Based on this analysis, the findings observed are listed in the following pages:

- The socio-demographic profile of loanee category farmers reveals that of the 279 sample farmers, 41.6 per cent fall in the age group of 41 to 50 years following this, 31.2 per cent come under 31 to 40 years group. Around 58.8 per cent are Hindus, 44.4 per cent belong to Most Backward Class, 90.7 per cent got married and 79.9 per cent of families are 'individual' nature. Regarding the education status, 31.5 per cent studied 'primary' level and 26.9 per cent are illiterates. But, in the case of non-loanee category, the same position is recorded with a slight difference in percentage.
- The study points out that more than 50 per cent of loanee as well as non-loanee category farmers are having own houses and around 56 per cent of loanee farmers have 'semi-pucca' houses. But the non-loanee farmers have 'pucca' type houses to the extent of 55.5 per cent.
- The access to basic household amenities shows that more than 25 per cent of loanee and non-loanee farmers have piped water in their residence for bathing as well as for drinking water. Around 26 per cent of non-loanee have own fit toilet whereas 29 per cent of loanee farmers have no toilet facility in their houses. More than 45 per cent of farmers both in loanee as well as in non-loanee category have electricity lighting; and have separate room for cooking to the extent of 36.6 per cent and 44.4 per cent respectively. The fuel used for cooking is wood (25.4%) followed by kerosene (24.4%) in the case of loanee category. But liquid petroleum gas (27.2%) and kerosene (256.9%) have been used by the non-loanee category farmers.

- The various household assets owned by the sample farmers indicate that around 90 per cent of loanee farmers own assets like Television and Clock / Watch. It is 91.5 per cent and 97.5 per cent respectively in the case of non-loanee category. The asset 'Chair' is held by 79.2 per cent of loanee farmers and it is 96.3 per cent in non-loanee category. 'Mobile' is held by 72 per cent and 88.9 per cent respectively under loanee and non-loanee category farmers.
- It is inferred from the study that almost 49.8 per cent of loanee farmers and 45.7 per cent non-loanee farmers own land ranging between 2.5 acres and 5.0 acres. Overall around 49 per cent of respondents own land in this range.
- The most important crop grown by the farmers is 'cereals' which accounts for 80 per cent in loanee category and 79 per cent in non-loanee category. Next to this 'commercial crops' follows and accounts for 11.8 per cent and 13.3 per cent respectively.
- Of the various livestock, 'Cow' is mostly held by sample farmers. On an average the loanee farmers hold 3.6 numbers and the non-loanee farmers hold 4 numbers.
- The main source of income by the overall sample farmers is 'agriculture' (47.8%) followed by 'cattle and poultry' rearing (15.8%). In secondary source, the source 'agriculture' accounts for 38.6 per cent and 'no income/other source' accounts for 31.1 per cent.
- It is understood from the study that the on an average the loanee and non-loanee farmers' households earn Rs.1,03,276 and Rs.1,19,428 respectively through primary sources and it is Rs.32,184 and Rs.35,952 under secondary sources.

- Regarding the experiences in farm activities, majority of farmers have an experience of 5 to 16 years. The loanee farmers account for 66.7 per cent and it is 56.8 per cent in the case of non-loanee category farmers.
- Around 95 per cent of samples farmers have the ration card issued by the government under Public Distribution System. Of this, a majority of 73.8 per cent possess 'green colour' ration card for receiving all types of commodities.
- It is evident from the study that more than 60 per cent of loanee as well as non-loanee farmers have the savings account with the bank.
- It is inferred from the study that the average expenditure on food made by the sample farmers are 57.2 per cent and the remaining percentage spent for non-food items like clothing, savings, health care, and so on.
- The study points out that around 74.9 per cent of loanee farmers and 58 per cent of non-loanee farmers have debt. The major reason for having debt is due to 'purchase of land/house' followed by 'agriculture related activities'. Hence, these reasons have been ranked in the first two positions.

### **6.3.2 Findings Based on Awareness of Farmers about Crop Insurance Schemes:**

The following are the important findings identified through the study towards awareness of farmers about Crop Insurance Schemes.

- Regarding the awareness towards 11 Crop Insurance Schemes given, cent per cent sample respondents belonging to both loanee and non-loanee category are aware of the National Agricultural Insurance Scheme and more than 90 per cent of loanee as well as non-loanee farmers are aware of the schemes like

Pilot Insurance Scheme, Comprehensive Crop Insurance Scheme, and Experimental Crop Insurance Scheme.

- It is inferred from the study that high level awareness exists more among the loanee farmers (22.6%) than the non-loanee farmers (17.3%).
- The chi-square test has been applied to test whether there is any significant relationship between the variables such as sex, age, religion, marital status, education, nature of family, ownership of house, landholding pattern, and experience and the level of awareness of loanee and non-loanee farmers towards crop insurance schemes. The chi-square test result indicates that the loanee farmers have significant relationship in respect of the variable 'education' whereas the non-loanee farmers for the variable 'marital status'. The study clearly points out that there is no significant relationship between the other variables mentioned above and the level of awareness towards Crop Insurance Schemes.
- The source of information regarding crop insurance scheme has mainly been gathered through 'bank/financial institutions' by most of respondents. This accounts for 37.3 per cent in loanee category and 31.4 per cent in non-loanee category.
- In the sample study, 85 per cent of respondents have availed loan and of this 68.3 per cent pointed out that the given loan amount is insufficient. The main reason for availing loan is 'minor irrigation' which was ranked as first by the loanee farmers but the non-loanee farmers ranked the reason 'farm mechanization' as their first choice. Thus, the opinions of both categories of farmers differ.

- It is understood from the study that a major portion of respondents, i.e. 67 per cent of loanee farmers and 57 per cent of non-loanee farmers, have cultivated both the notified and non-notified crops.
- It is inferred that the first and the foremost reason for insuring the crop by the loanee farmers is 'compulsion by the bank' but it is 'protect against losses' in respect of non-loanee farmers. These reasons are ranked first based on the mean score of the Garrett's ranking technique in the respective category of farmers.
- It is observed from the study that the most preferred crop insurance provider from the point of view of loanee farmers are 'co-operative bank' and 'commercial bank'. Hence, these providers secured the first two positions i.e. the first and the second rank respectively. But the non-loanee farmers stated as 'commercial bank' as their first choice followed by 'co-operative bank'.
- Regarding the preference of source of aid in case of crop losses, both the loanee and the non-loanee category farmers identified the source 'government relief' as their first choice. The second place is provided to 'crop insurance' by the loanee farmers and 'asset hypothecation' by the non-loanee farmers.

### **6.3.3 Findings Based on Attitude of Farmers towards Crop Insurance Scheme:**

The opinion in respect of the sample farmers towards 20 statements in connection with the crop insurance has been gathered and for analyzing the attitude of farmers it has been measured by using the Likert's scaling technique. The major findings are listed in the following page.

Strong agreement is shown by the loanee as well as the non-loanee farmers in connection with crop insurance for the following ten statements:

- 1) Protects against Loss or Damage of Crops
- 2) Provides Guarantee for the Banker
- 3) Served by the Agricultural Insurance Company
- 4) Schemes are modified by the Central Govt.
- 5) Easily Accessible through Bank
- 6) Covered by the National Agricultural Insurance Scheme
- 7) Premiums are shared by Government
- 8) Compulsory Coverage for Loanee Farmers
- 9) Voluntary Coverage for Non-Loanee Farmers
- 10) Rainfall Variations Reduce Crop Yields

Disagreement is seen from the loanee and non-loanee category farmers with respect to crop insurance by scoring less than 50 per cent to the following six statements:

- 1) It Helps in Reducing the Risks
- 2) Premium Rate is Reasonable
- 3) Motivation from Banks/Financial Institutions
- 4) Adequate Publicity
- 5) Crop Insurance Schemes are well defined
- 6) Quick Settlement of Claims

#### **6.3.4 Findings Based on Satisfaction of Farmers towards Crop Insurance:**

Farmers' satisfaction towards crop insurance has been measured with the help of 11 important parameters like sum assured, premium rate, documentation, area approach, indemnity level, coverage of crops, response from bank, publicity of schemes, loss assessment, claim procedure and premium subsidy. The important findings towards satisfaction to crop insurance are –

- Of the 11 parameters identified for influencing satisfaction of crop insurance, 'coverage of crops' occupies the first rank by obtaining the highest mean score of 3.68 followed by 'premium subsidy' among the loanee category farmers.
- Regarding the level of satisfaction, the satisfaction score falls between 50 and 75 per cent for parameters like coverage of crops, sum assured, area approach, indemnity level, response from bank, publicity of scheme, and premium subsidy which comes under the category of 'moderate level' of satisfaction to the farmers. The remaining parameters come under the category of 'low level' satisfaction. It is observed that 'high level' satisfaction is not seen from the sample loanee farmers for any one parameter given in the study.
- In the study, the non-loanee farmers also pointed out the parameter 'coverage of crops' as their first choice for influencing satisfaction towards crop insurance. Next to this, the parameter 'area approach' is placed in the second position.

- The satisfaction level analysis reveals that the parameters such as coverage of crops, area approach, sum assured, premium subsidy, indemnity level, and publicity of scheme are placed in the descending order of satisfaction score by obtaining score between 50 and 75. Hence, these parameters are placed in 'moderate level' satisfaction. It is also found from the study that 'high level' satisfaction does not exist among the sample non-loanee farmers for any one of the given parameters.
- The findings regarding the major reason for dissatisfaction towards crop insurance by loanee farmers is 'delay in settlement of claims' whereas it is 'poor response' in the case of non-loanee farmers.

## **6.4 SUGGESTIONS**

In the light of the present findings and suggestions given by the sample respondents, the following suggestions/recommendations are made for improving the crop insurance scheme.

### **6.4.1 Suggestions Based on the Present Study:**

1. In the present study, it is found that 22.6 per cent of loanee farmers and 17.3 per cent of non-loanee sample farmers are having high level awareness about crop insurance. Hence, it is suggested that the insurance companies and government should take necessary steps to improve the level of awareness among the farmers by taking the following measures:
  - The farmers should be made aware of the various insurance schemes for which adequate publicity / extension support should be provided by the state governments.

- Proper propaganda about crop insurance need should be made by the government, Department of Agriculture and insurance agencies.
  - To introduce a comprehensive scheme and coverage so that farmers will be given the insurance cover for the crops of their choice.
  - Awareness campaign to induce non-borrowers to buy insurance covers for major / notified crops.
2. In the present study, around 68 per cent of sample farmers have stated that the given loan amount is insufficient for them. Hence, it is suggested to enhance the loan amount which will not only attract the loanee farmers but will also influence the non-loanee farmers to some extent for availing loan.
3. In the present study, majority of farmers have shown disagreement towards facts like premium rate, motivation from banks, publicity, and quick settlement of claims. The government and the bank should be given high concentration on these aspects in order to improve these facts.
4. In the present study, it is found that 53.05 per cent of loanee farmers and 54.32 per cent non-loanee sample farmers are dissatisfied about the existing crop insurance scheme. Hence, it is suggested that the insurance company and the government should adopt the following steps to improve the satisfaction level of farmers:
- Steps like increasing of crops coverage and area approach, and reduction in premium rate should be implemented by the insurance company.
  - Technicalities and the procedures and formalities with regard to the claims should be simplified.

#### **6.4.2 Suggestions for Making Policy Decision:**

- Agriculture in India is not just reliant on weather conditions, but also suffers the impact of natural disasters. So, it is recommended that the government can assist agricultural insurance by offering information on weather patterns, spots of farms and crops, history of perils and crop yields.
- Crop insurance programme works as collateral security, and also benefits banks. When claims are paid, banks first adjust the claim against their outstanding dues, and balance if any is credited to the farmers. Therefore, the Crop Insurance Scheme also benefits the banks. In Philippines, banks are made to share a part of the premium burden. For rice where the premium is 10.81 per cent, borrowing farmer pays only 2.91 per cent; while the government pays is 5.90 per cent and the lending institution, 2.00 per cent. A similar arrangement can be recommended for participating banks in India. Such arrangement would also bring non-loanee farmers into the fold of banking network, thus institutional lending of crop loans.
- The main reason for the crop failure is that scientific and technological advancements do not reach many farmers. Hence, government should take measures like provision of more free training camps on the use of scientific and technological advancements. This will help the farmers to improve their technological knowledge for the use of genetically-engineered crops, hybrid varieties, bio-fertilizers and bio-pesticides. This will increase the fertility of the land and yield, and decrease pollution. Better yield helps the farmers to pay better to the labour and bear the premium of agricultural insurance.

- The present crop insurance scheme could not provide desirable results due to some constraints, mostly operational, like inadequate infrastructure, delay in release of State share towards its committed financial liabilities, phasing out of premium subsidy (to Small/Marginal farmers), larger unit areas of insurance (high basis risk), less interest shown by the financial institutions, lower level of indemnity, inadequate guaranteed yield to compensate adequately and the like. Government has also faced difficulties in their budgeting due to open ended financial liabilities on account of premium subsidy, claims, administrative expenses, bank service charges, publicity expenses, etc. So, it is need of the hour to implement much modification in crop insurance scheme by constituting a committee for this purpose.
- The existing scheme is wholly government scheme with no intensions to private finance players, which hinders competitiveness of the scheme. There is a need to promote private sector participation in agriculture insurance. There are more than 18 private sector insurers in the general insurance business. The fact remains that most of the private general insurers have not yet undertaken agricultural insurance to a significant extent. Only two companies in the private sector have initiated crop insurance, albeit on a small scale. ICICI-Lombard was the first company to experiment with rainfall insurance in 2003. The concept has further been extended to weather insurance since 2004. IFFCO-Tokio General Insurance, the second company in private sector, has started piloting rainfall insurance, since 2004.

- The government should insist on and implement agriculture insurance to persuade the farmers to meet the losses through their own precautionary mechanism instead of expecting the government to write off Rs.60,000 crore or more debts as agricultural loss in every budget. Besides, it will also help the farmers to become self-reliant.
- Any crop insurance scheme needs to be handled judiciously. The developing country like India may not have sufficient funds to sustain any comprehensive agricultural insurance policy. On the other hand, if the premium rates are high, small and marginal farmers would not be able to participate in agricultural insurance programme. It is precisely for this reason that governments have to concentrate on non-insurance based risk management strategies.
- The Insurance Regulatory and Development Authority (IRDA) has stipulated that every new insurer undertaking general insurance business, has to underwrite business in the rural sector to the extent of at least two per cent of the gross premium during the first financial year, which is to be increased to five per cent during the third financial year of its operation. Crop insurance is included in the rural sector insurance for this purpose. The business targets stipulated in rural insurance apparently are very small. Those who do not meet even these small targets are getting away by paying penalties of nominal amounts. If private insurers are to be spurred to enter the rural insurance market in a significant manner, the business targets have to be raised substantially by IRDA.

- Good governance is as important for various developmental programmes as for successful operation of an agriculture insurance scheme. Poor governance adversely affects development activities. With the improvement in governance, it is feasible to effectively operate and improve upon the performance of various programmes including agriculture insurance.

If the above suggestive measures are adopted by the insurance company, it is hoped that more farmers will come forward to insure their crops and in event of loss of any crops, farmers will be more benefitted and undoubtedly farmers' economic conditions as well as the national's economy will be improved.

## **6.5 SCOPE FOR FURTHER RESEARCH**

The following areas have been identified for carrying out an in-depth study about crop insurance in future.

1. An Analytical Study on Crop Insurance Schemes in Tamil Nadu.
2. Perception of Farmers towards National Agricultural Insurance Scheme in Tamil Nadu.
3. Organizational Climate of the Agricultural Insurance Company of India Limited.
4. Performance Evaluation of the Agricultural Insurance Company of India Limited – An Analytical Study.
5. The Role of Banks in the Implementation of Crop Insurance Schemes in Tamil Nadu.
6. A Study on Problems and Prospects of Agricultural Insurance in India.

## 6.6 CONCLUSION

Despite progress of irrigation and improvement in infrastructure and communication, the risk in agriculture production has increased in the country. The risk is much higher for farm income than production. Various schemes launched from time to time in India for agriculture insurance have served very limited purpose. The coverage in terms of area, number of farmers and value of agricultural output is very small, payment of indemnity based on area approach affected farmers outside the compensated area, and most of the schemes are not viable. Expanding the coverage of crop insurance would therefore increase government costs considerably. Unless the programme is restructured carefully to make it viable, the prospects of its future expansion to include and impact more farmers are remote. This requires renewed efforts by government in terms of designing appropriate mechanisms and providing financial support for agricultural insurance. Providing similar help to private sector insurers would help in increasing insurance coverage and in improving viability of the insurance schemes over time.

\* \* \* \* \*